



XL-view User Manual

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XLview Introduction

Developed by XtendLan company, XLview is the software products designed in connected with digital camera of the CMOS series and CCD series. With the functions of photo taking, picture measuring and picture handling, the products are widely used in the application of all trades and professions including biology, medical science, astronomy, chemical industry and so on. The photo is in high clarity and checked against a standard, in this way it improves its accuracy. Offered by the picture handling function the tools covers a range as follow: revolving tool, repair tool, sharpen/obscuring tool, brightness tool, color adjusting tools so on and so forth. By utilizing the tools you can improve the showing effect of the photo. XLview is in good interface and easy to be operated simply to meet the customers' need that one can measure the photo immediately after taking it. Furthermore, we make a gradual development in accordance with the customers' need to improve our XLview software.

Chapter One Installation Recommendation

1.1 Operation system

XLview can work under windows XP, vista, 2000, and the system should be installed Directshow 9.0 components.

1.2 Hardware requirement

1.2.1 Recommended system:

CPU: Intel / AMD 2,3Ghz

RAM: 512 MB

HDD: 10GB

USB: USB2.0 interface

1.2.2 The USB2.0 interface

Please confirm the computer equipped with USB2.0 interface and installed correct driver before using the camera.

Chapter two User instruction

2.1 Hardware /software installation

2.1.1. Connecting

Connect the USB cable to the PC.

2.1.2. Installation driver

z For the device type of BOXUSBCAM (DirectShow) on Windows XP SP2 and 2000.

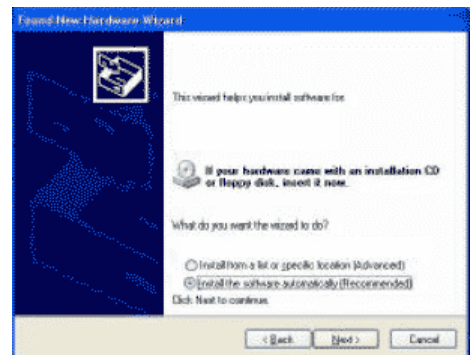
1. Select "MI1300driverÆSetup.exe" step by step to finish setup
2. To restart the system
3. To plug the USB2.0 cable to the computer and the computer will find hardware by itself.
4. To select installing the hardware auto
5. After installation, the apparatuses can work properly, and click the application icon to work.

z BOXUSBCAM (DirectShow) in Vista and Windows XP SP3 would be the same installation procedures.

1. Connect the camera to the USB2.0 interface, system will prompt the following window. Select “Yes, only this time”, and then click “Next”.



2. Select “Manual install software” click “Next”.



3. Select “From list or an assigned position”, click “next”.

4. System informs that the program hasn't passed the Windows test, click “continue”. (Whether it passes the Windows test or not do not affect the use of the camera)



5. After installation, click “Finish”. Then the apparatuses can work properly.

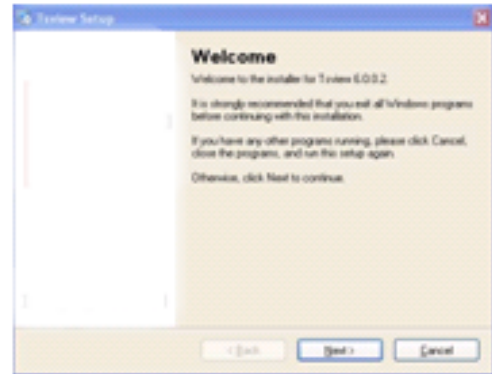
6. Restart the system.



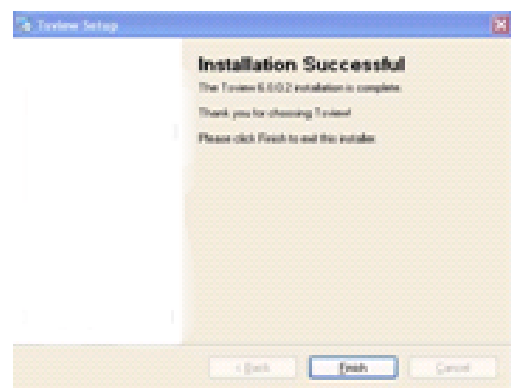
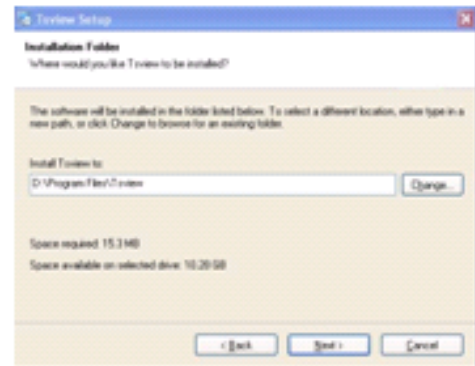
2.1.3. Running XLview

Double click “XLview-xp.exe”, and according to the prompt to finish XLView installation.

1. Double click “setup-xp.exe”
then click next by next.



2. click “Finish”.

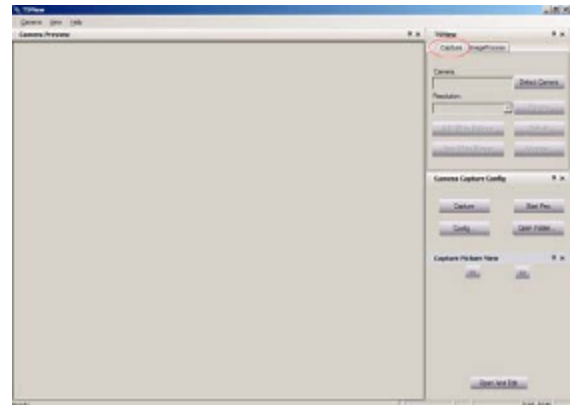


Chapter THree Camera previewing and shooting

2.2 Camera operation

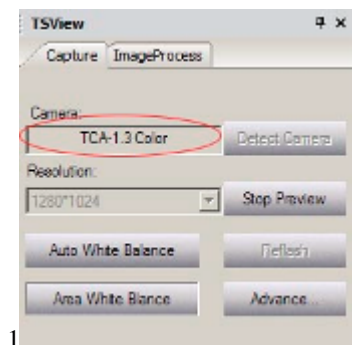
2.2.1 Capture panel

1.Click the “capture” panel which is on the right of the window, as following shows:



2.2.2 To select the device

When camera connecting with the computer, there is no need to choose camera type,the right camera type will straight dump into next. (picture1)

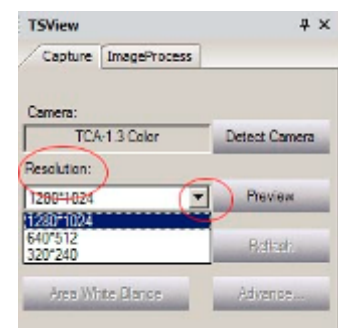


1

2.2.3. To select the image resolution

Changing the default resolution, select the right resolution(picture2)

2



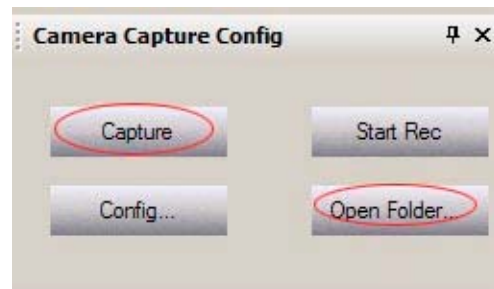
2.2.4. To preview image

1. Click the “ preview” change to “Stop Preview”, then click it again to start preview the image.
2. the image will display on the window.



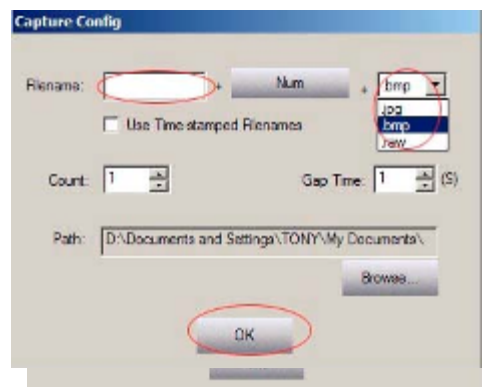
3: To capture image

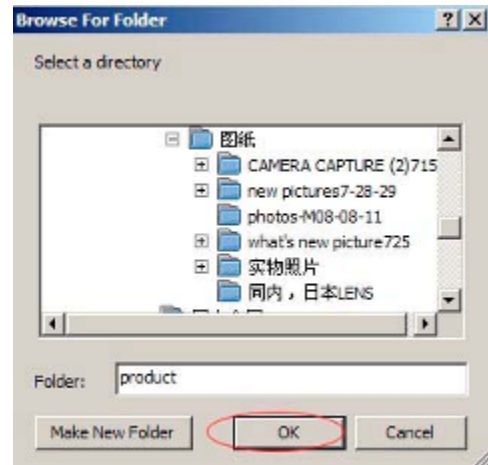
- 1) Click "capture" to capture image
- 2) The captured image will show in the "Capture Picture View"
- 3) Click "Open Folder" you can find the captured image will be auto saved by system file time.
Fore xample:ts-07-23-15-29.jpg:



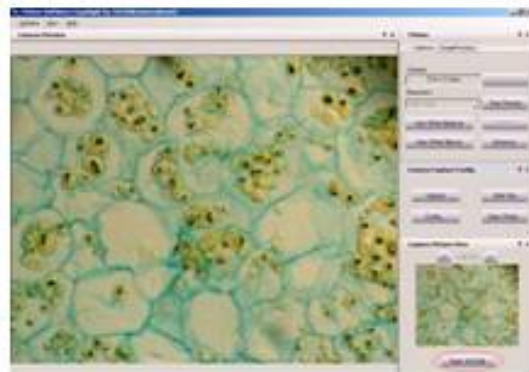
4) Click "Config..." can input the filename, the image is according to priority with number Image can be saved at jpg,bmt,raw.

- 5) Click "Count" set up how many images shooting with continuously.
- 6) Click "Gap time" set up how long shooting images continuously.
- 7) Click "Browse" choosing save the image's path .





- 4: "Refresh" function just for XL-CCD series camras,it can be frame rate slow.
- 5: Fast view function:
 - 1)>>:choosing next the captured image.
 - 2) <<: choosing forward the captured image.
 - 3) edit: Click the "Open And Edit" ,the image will show on this operation interface.

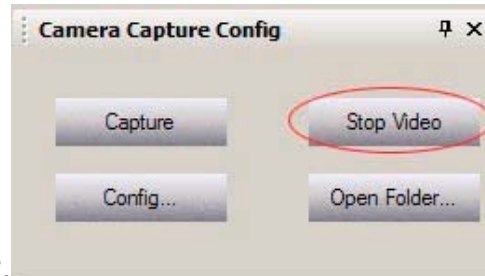


2.2.5. To record video

- 1:click:" Start Video" recording video then click "Stop Video" the video will be saved. (just like the pictures as below1.2)
- 2:To play the recorded video,click "Open Folder"and double click the file(like the picture1.2.3)



1.



2.

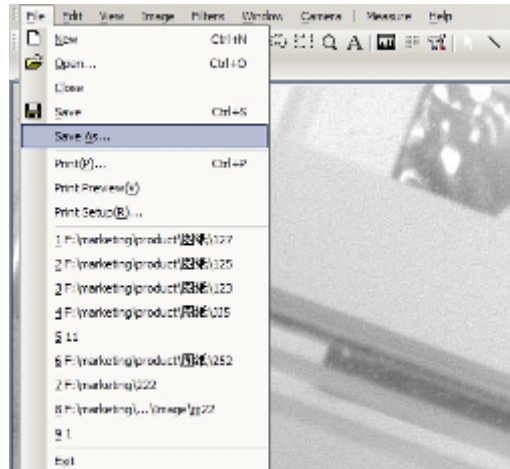


3.

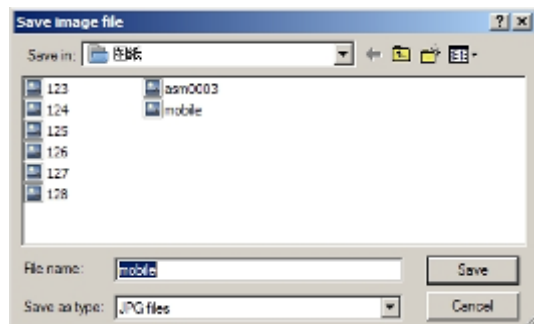
2.2.6. To save the captured image

1. In the "image process" panel, choosing the "File"

2. click the "save as", system will prompt the following window.

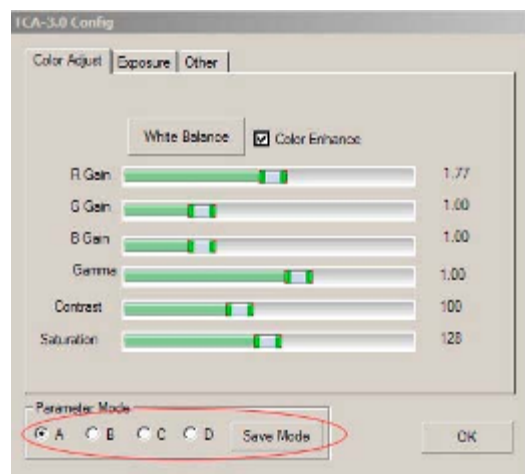


3. Input the file name or keep the default setting.
Click the "save".

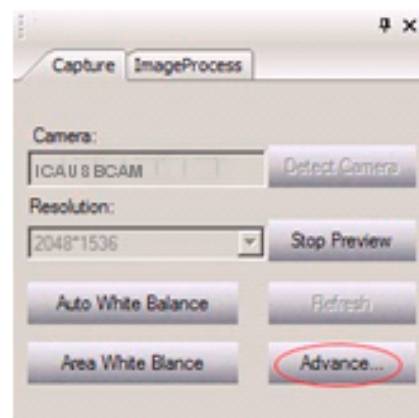


2.2.7 To setting parameter

- 1.click “Advance”.
- 2.To choose the color adjustment,exporsure,other in this panel and set up
- 3.In “Advance” panel,all type of XtendLan Camera adjustment mode will be saved by four “Save mode”.

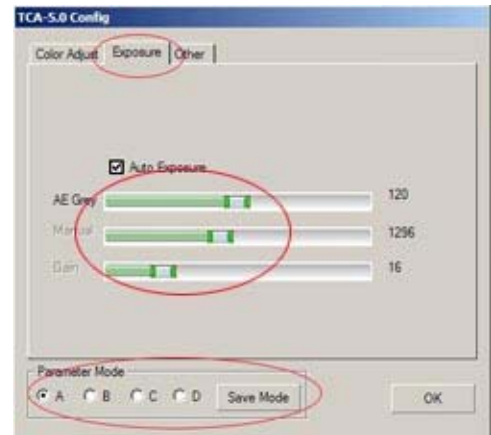


White Balance:To set auto white balance and area white balance by adjusting the color value of red and blue. The system default is auto white balance. If the user wants to change the value, through the other easy way is to click “Advance” show in the capture panel, like the picture:



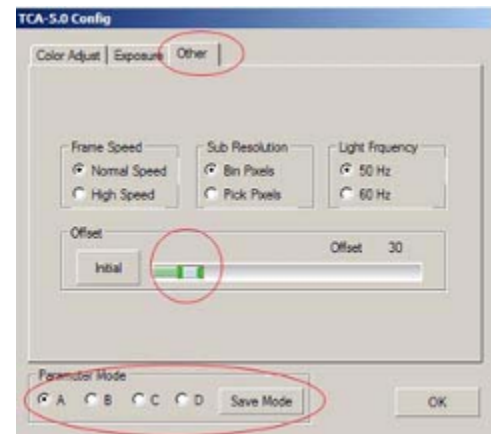
Exposure: To set exposure time and grey target value. If the user wants to change the value, you should cancel the “Auto” first

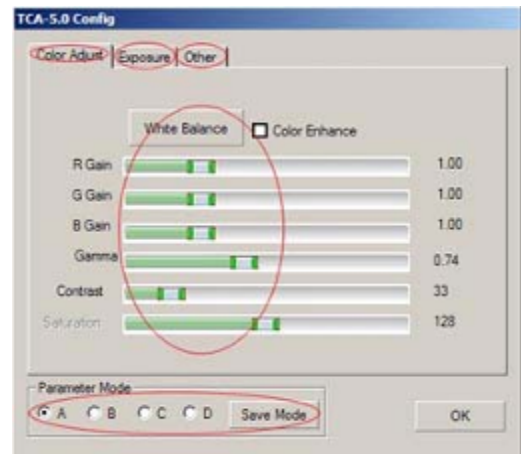
1. click “Exposure”.
2. To adjust the gamma value and contrast.



3. To set Auto exposure (the setting of “AE Grey”) and Manual exposure(*the setting of “Manual” and “Gain”*). The system default is auto exposure. If the user wants to change the value, you should cancel the “Auto Exposure” first.

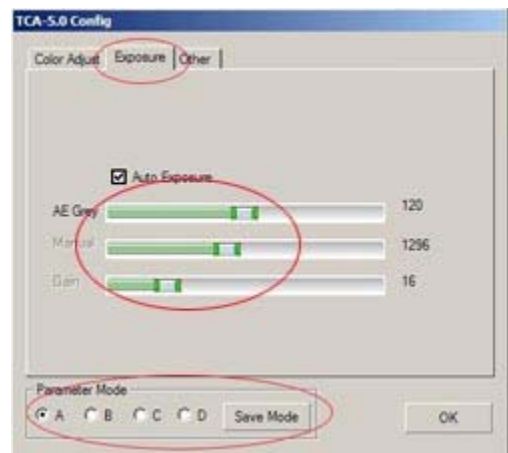
Other: To set “Frame Speed”, “Sub Resolution” ,“Offset” and “Light Frquency”





Color Adjustment: To adjust the gamma value, Saturation, contrast and White Balance.

(White Balance: To set white balance by adjusting the color value of red, green and blue. If the user wants to Auto exposure, click "Exposure".



Exposure: To set Auto exposure (the setting of "AE Grey") and Manual exposure (the setting of "Manual" and "Gain"). The system default is auto exposure. If the user wants to change the value, you should cancel the "Auto Exposure" first

Other: To set "Frame Speed" "Sub Resolution" "Offset" and "Light Frequency"

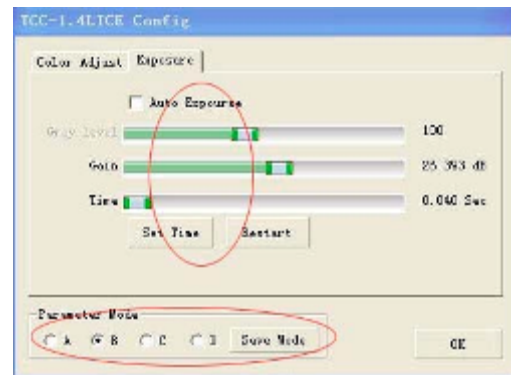
BOXUSBICE

Exposure: To set Auto exposure time (*Target ,Gain,Time*) and Long exposure time(*Time*)

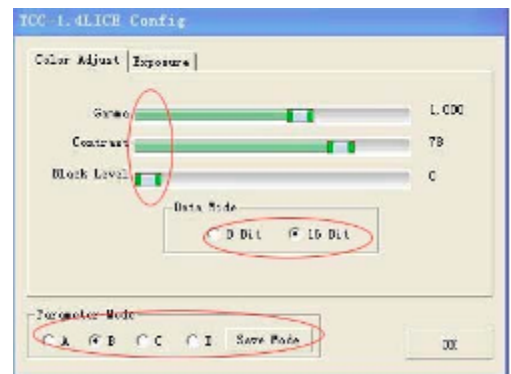
Color Adjust: To adjust the gamma value, Contrast and Black Level. Picture1

Date bit : Choose 8 bit or 16 bit.

Save Parameter: To save the Parameter which you setting (*Choose the one of "A,B,C,D", then click "save".*)

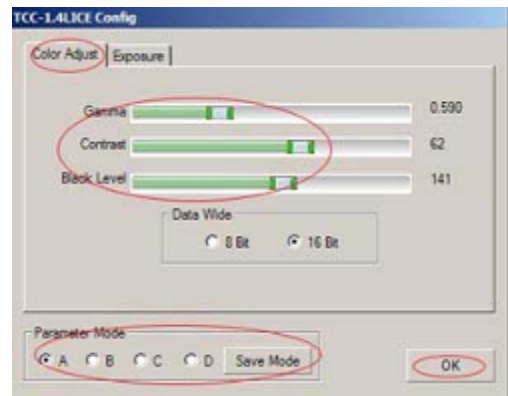


Picture2

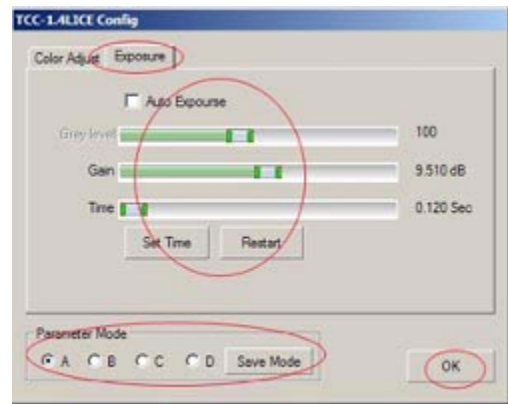


BOXUSBICE

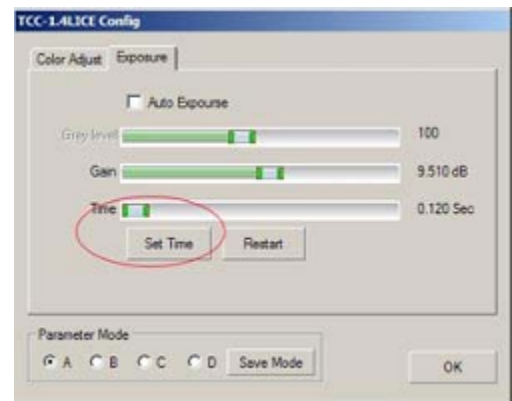
Color Adjustment : To adjust the gamma value and contrast.



Exposure: To set Auto exposure (the setting of "AE Grey") and Manual exposure(*the setting of "Manual" and "Gain"*). The system default is auto exposure. If the user wants to change the value, you should cancel the "Auto Exposure" first.



Long exposure:To set long Exposure time.



Chapter Four Image measurement and processing

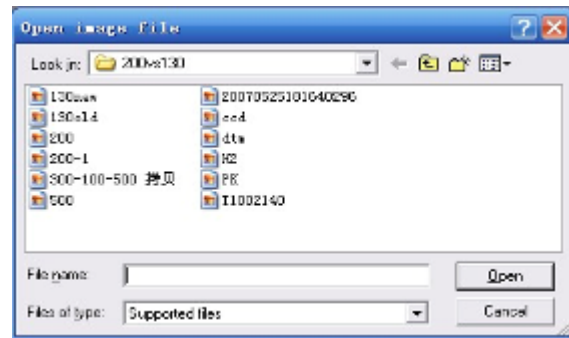
2.3 Image measuring

2.3.1. Image Process panel

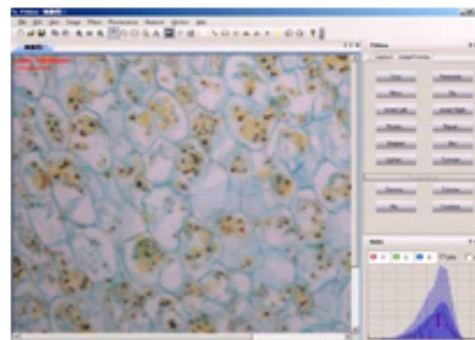
Click "Image Process" which is on the right of the window, as following shows:

2.3.2. To select image

1. Click "open" that in the drop-down menu of the "file" to select image, the system will prompt the following window:



2. Select an image and click "open", the window as follow:



stretch mode: to adjust the display mode of the image (full screen size or original size)

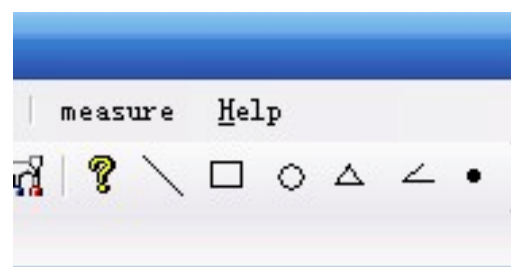
new window: to built new window

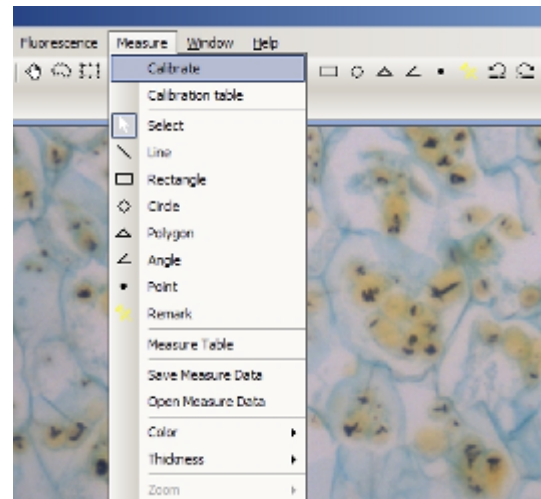
close all: to close all opening image windows

Duplicate: to copy the current image window

2.3.3 To measure image

Measure tool: you can select tools from the toolbar or the drop-down menu of "Measure"





Line: to measure image length

Select a starting point, drag mouse until reach the ending point, then loose the left mouse button.

Rect: to measure area and perimeter of the rectangle

Select a starting point, and drag mouse until it reach the diagonal point then loose the left mouse button.

Circle: to measure area and perimeter of the circle

Select Central point, and drag mouse until it reach the certain radius, then loose the left mouse button.

Polygon: to measure area and perimeter of the polygon

Select a starting point and drag mouse to a certain length and select the second point, the third point.....connect the starting point finally to form a closed polygon. (The max lines for a polygon are 50.)

Angle: to measure angle

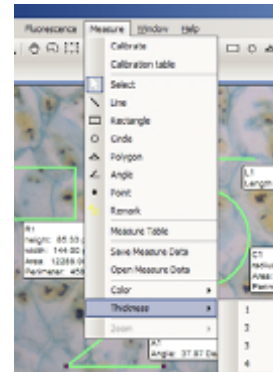
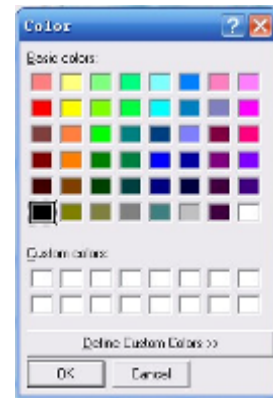
Press the left mouse button to draw the first side, and loose the mouse, then move the mouse to the end of the second side, clicking.

Count: to count the object

Just click the relevant area to count the number of points.

Select the draw lines color and thickness

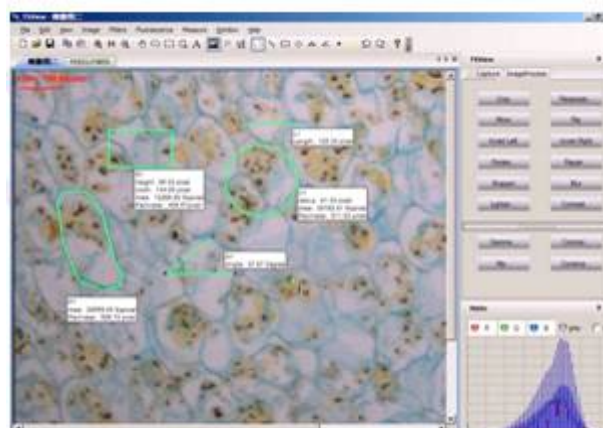
select the draw lines color and thickness: open the "color" box and "thickness" box, as the below window:



Measurement method

Direct measurement:

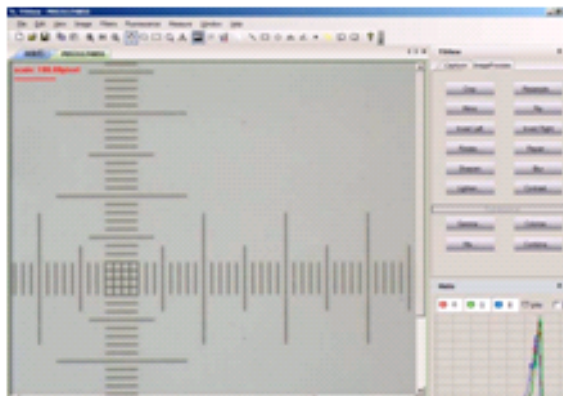
1. select the relevant tools.
2. press the left mouse button and move mouse to image
3. select measure area and the parameters will be shown in the image (like the picture as below)
4. you can click the “<, >” in the toolbar or "undo/ undo" in the “measure” menu to cancel current measured images.



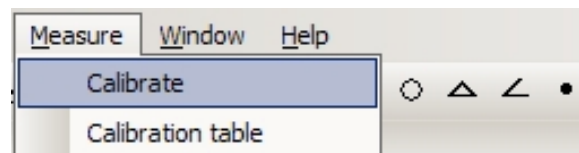
Calibration measurement

Calibrate settings:

1. Open a standard calibrating image, the window as below:

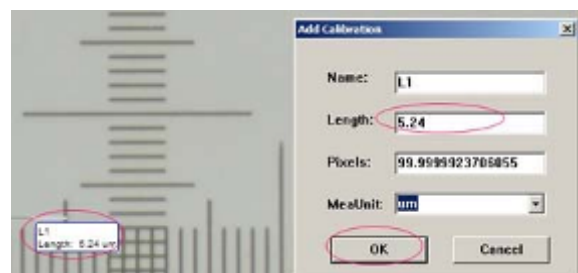


2. Click “calibrate” in the drop-down menu of “measure”.

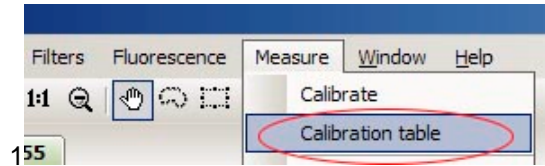


3. Choosing standard length of starting point and end point.

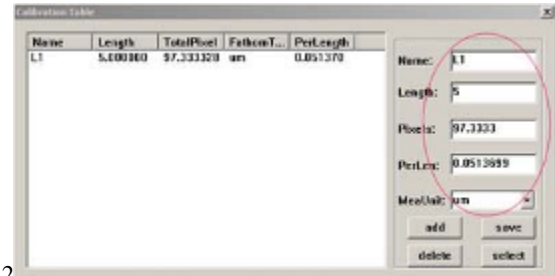
4. After calibration, then automatically popping the “Add calibration”, Input the measured length ,name and choose MeaUnit ,then click “ok” .



5. Click “calibration table”, the system will prompt “Calibration table” window picture1.2 all measured datas will show in this calibration table frame.



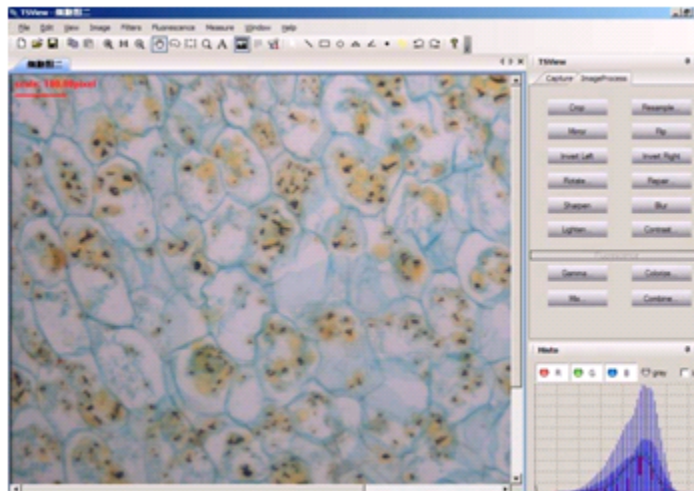
155



2

Selecting calibration ruler

1. open a new image

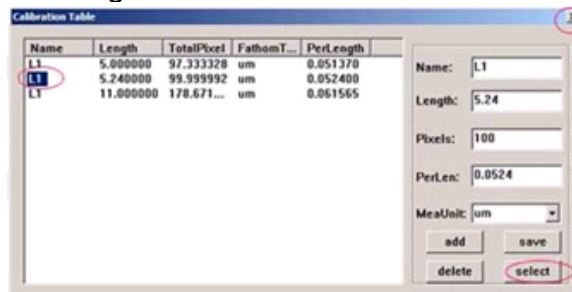


2. Select "measure->calibrate table".

the system will prompt a dialog as bellow:

3. Click the right name of the calibrate ruler, the ruler will change into blue color.

4. Click "select" and close the dialog window.



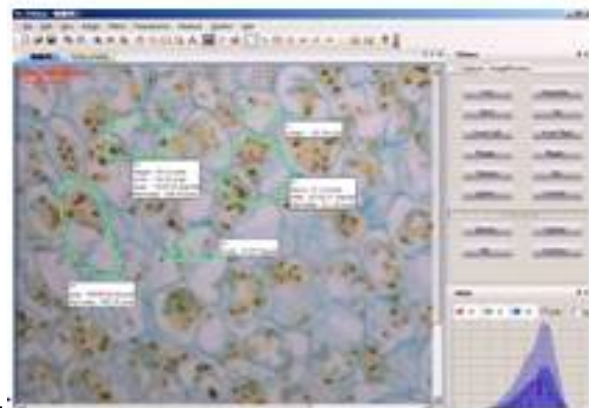
6. The calibration rule will appear in the window, the picture as below:

7. All measured images' data are subject to this basis of scale.



3

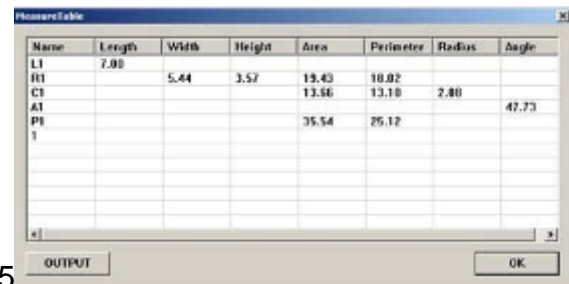
8. Select measuring tool to measure images, the picture as below:



4

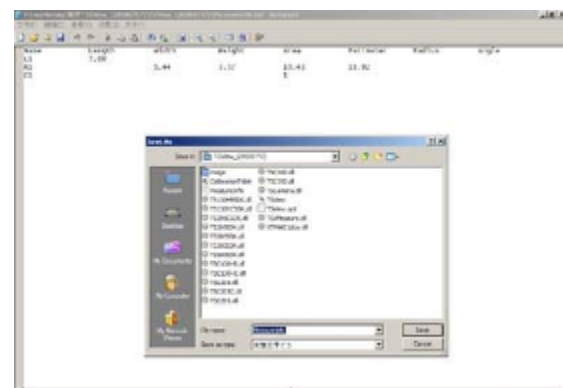
9. Select "measure"-> "Measure Table" to check the "measure table", the picture5 as below:

10. Click "output" to export the information as the "txt" format

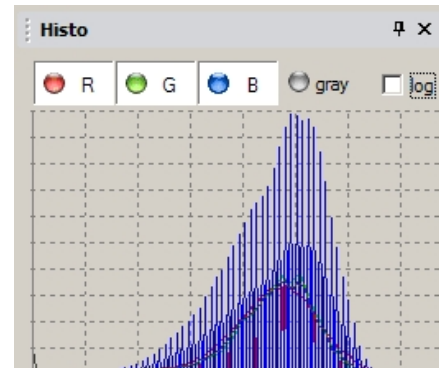


5

11. Click the "file" ,choosing "Save as".Input the file name and save it.



2.3.4 Histogram

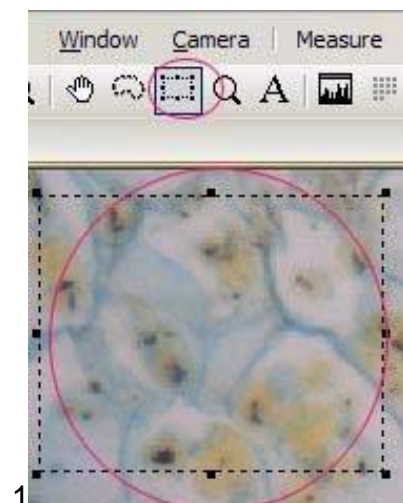


2.4 Image processing Introduction



2.4.1 Image process panel

Crop: 1. First Click track a piece of area, click "Crop" then the image will be cropped and replace the original one. (like pictures as below 1.2.3)



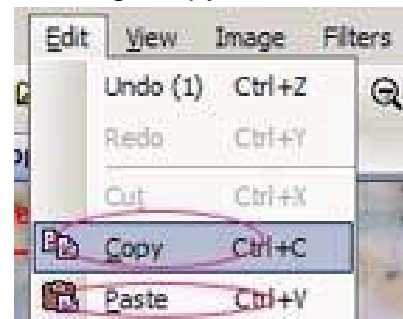


2



3

2.If we want to copy the cropped image just click the “Edit”,choosing “Copy”,”Paste”.



like this picture:

Mirror:Image rotate to left or right

Flip: Image rotate to up or down

Rotate Left:to rotate image anticlockwise

Rotate Right:to rotate image clockwise

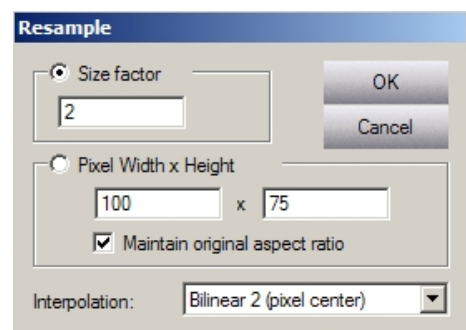
Sharpen:sharpen image

Blur:blur image

Resample: To enlarge or narrow the image (picture 1.1)

Size factor: to adjust the image size by multiples

pixel width*Height: to adjust the image resolution



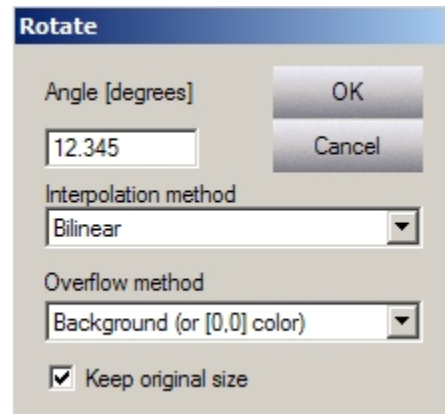
1.1

Maintain original aspect ratio:To keep the image original size

Custom Rotate:rotation image by user definition

Angle: set up rotation angle

Keep original size: keep the original size or by selecting the option.

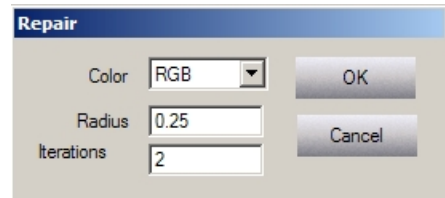


Repair:repairing the noise

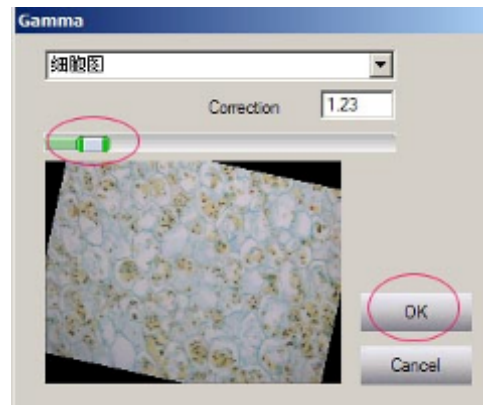
Color Space: to select the color

Radius: set up range

Iterations: set up the time of the Iteration



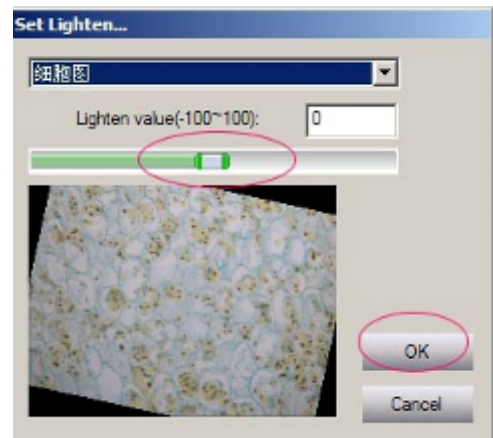
Gamma: Set up Gamma value



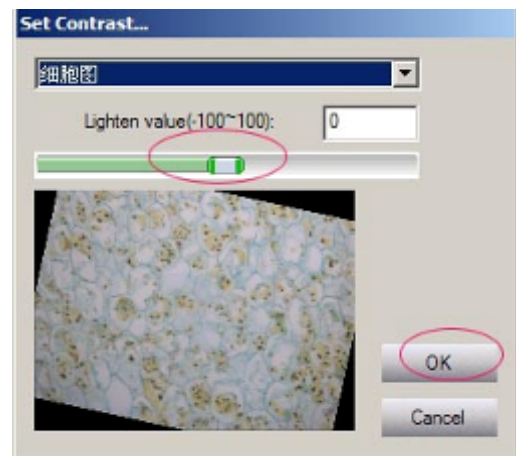
Colorize:Color regulator



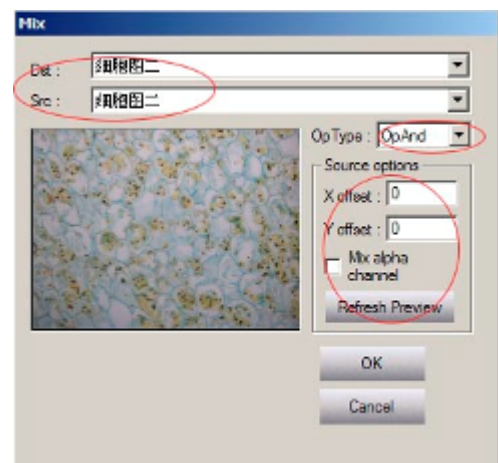
User lighten: set up brightness of the image



User Contrast: set up contrast value of the image



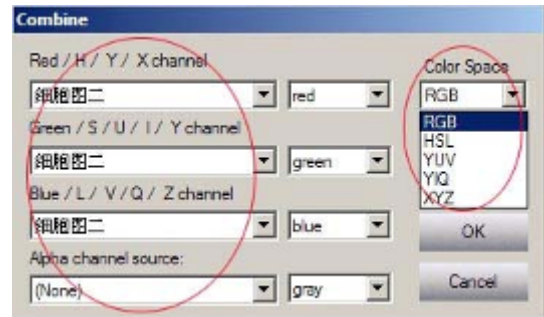
User Mix: Mixing two images into one image
Mixing two images with "Flourescence"



- 1)Input file name in the "Src"frame.
- 2)Input data in "X offset,Y offset"frame,click "Refresh Preview".
- 3)Click "Ok"the other mixed image is done.

4) Click “Op Type”to choosing different type mixing different effective images(including the flourescence)

User Combine: Combine three images into one image.



- 1)Choosing different images from “Red,Green, Blue Channel”bar.
- 2)Choosing color from “Color Space”bar.
- 3)Click “OK”,the combined image is done.

2.4.2 Image processing in the View menu

- Standard:
- Status Bar:
- Histogram :
- Palette: Stretch
- mode: Smooth:
- Full Screen:
- Zoom In :
- Zoom Out
- Normal Viewing(1:1)

Tools

- Move:
- Select:
- Zoom:
- Text :
- Tracker:
- Menu Style:
- Default:
- XP:

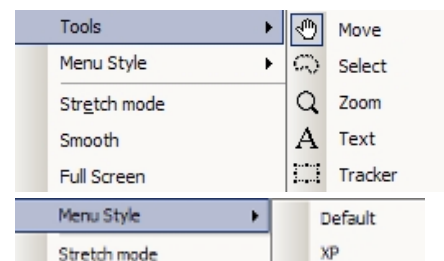
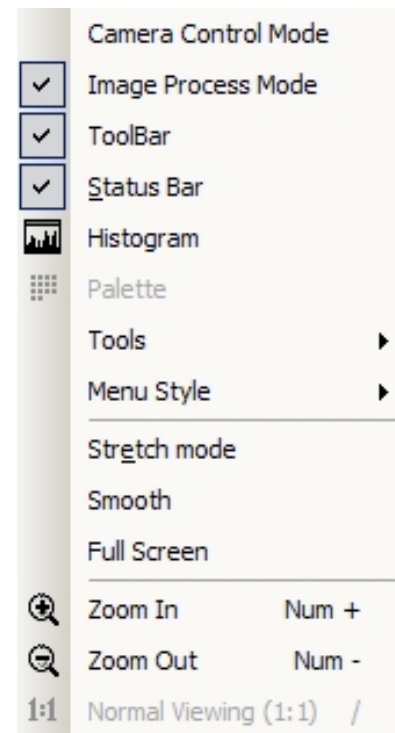


Image menu

Mirror: Flip:
Negative:
Rotate Left:
Rotate Right:
Rotate:
Resample:
Skew:
Crop:
Set Transparency:
Remove Transparency:
Gray Scale:
Dither: Decrease
Bpp: Increase
Bpp: Histogram:

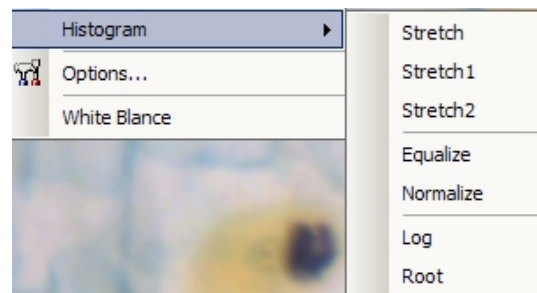
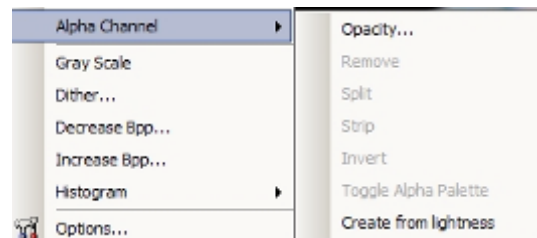
Alpha Channel:

Opacity:
Remove:
Split:
Strip:
Invert:
Toggle Alpha Palette:
Create from lightness:

Options:

Histogram:

Stretch:
Stretch1:
Stretch2:
Equalize:
Normalize:
Log: Root:

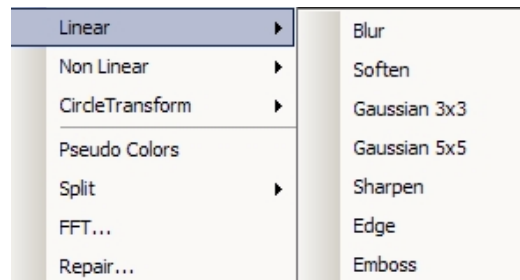


Filters menu

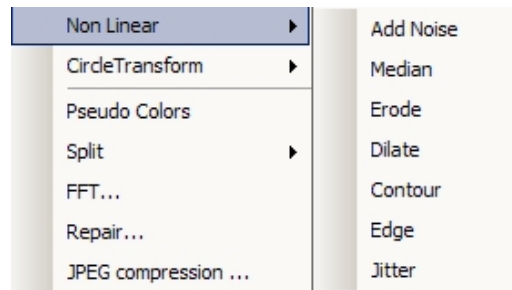
Threshold:
Colorize:
Gamma:

Lighten:
Darken:
More Contrast:
Less Contrast:
User Lighten:
User Contrast:

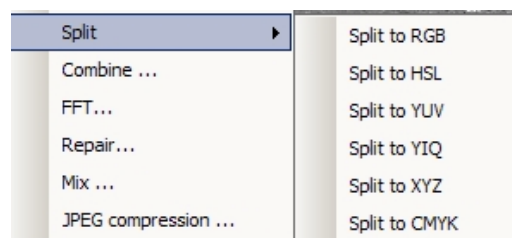
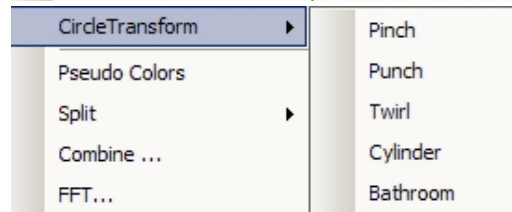
Linear:
 Blur:
 Soften:
 Gaussian 3*3:
 Gaussian 5*5:
 Sharpen: Edge:
 Emboss:



Non Linear:
 Add Noise:
 Median:
 Erode: Dilate:
 Contour:
 Edge: Jitter:



Circle Transform:the picture as below:
 Pseudo Color:
 Split:
 Combine:
 FFT:
 Repair:
 Mix:
 JPEG compression:



2.4.2 To printing image

Printing function support printing the measured image.

- 1)Click “ File” choosing “Print” to printing image.
- 2)Click “Print Preview”to preview the ready printing image.
- 3)Click “Print set up” to set up the image then printing image.(like the picture as below1.2)

