TrueChrome-Ⅱ User Guide

Chapter 1 Intoduction

Advanced design

TureChrome-Ⅱcolorful camera, one of Tucsen'milepost types, is of great a bility of color rendition, and come up with a true resolution for catching highly definition maps. The FPGA dual core procession guarantees the r ecovery of the high speed and high quality picture. According to custom er demand for personalized, the camera parameter setting could be oper ate freely and freeze the screen to show the perfect image.

TureChrome-Ⅱ has inherited all of the best merits of TureChrome, and of course updating the visual experience, hommization experience and the firm-soft and Microsoft of the camera.

You are more professional than you imaging。

To make full use of this product, please read the user manual.

Cleanliness

Be sure the dust cover is covered, unless using the camera. If you have to clean the optical window for the accumulating of the dust in the air, we advise you fiber lens clothes glance aside it with a little ethanol. Typ ically, clean out from left to right or from top to bottom lightly grazed. If you can see dust in the inner, please contact Fuzhou xintu photoelectron ic Co., Ltd customer service to obtain guidance.

Maintain

Only the Fuzhou xintu photoelectronic Co., Ltd has the right to maintain the camera. So you can contact the service for the maintaining.

CAUTION：Please do not open the camera box randomly and disassemble the reload for the dust and moisture can enter into the inner. The resulting chip damage and moisture problems will not warranty.
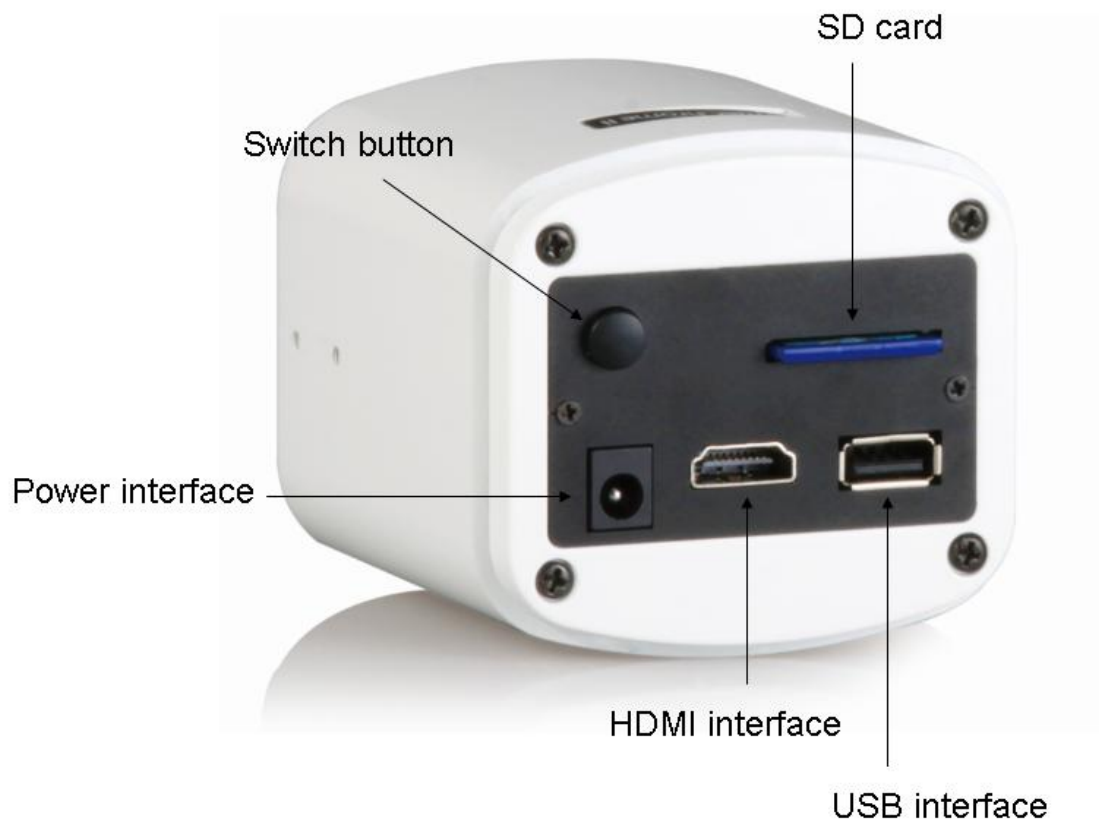
Chapter 2 System constituent

Tucsen TureChrome-Ⅱcamera is constituent of a TureChrome-Ⅱ camera、a 12V2A adapter、a HDMI、a class 10 SD card and a 1.5 meter mouse.


Optional accessories: Switching cylinder

TureChrome-Ⅱcamera interface

1. **USB interface**：A 1.5 meter standard mouse to control the main interface.

2. **HDMI interface**：A standard HDMI help to transfer the signals to the screen, the screen is just a screen. And Tucsen camera support the hot plug.
Here we recommend you connect the camera with a desktop computer.

3**. Power interface**：A 12V2A adapter is suitable。

4.**Open or close key**：You can bunt the key to open or close the camera.

5.**SD card**：Ensure the high speed of the signals, we advise you select the class 10 SD card.

CAUTION：
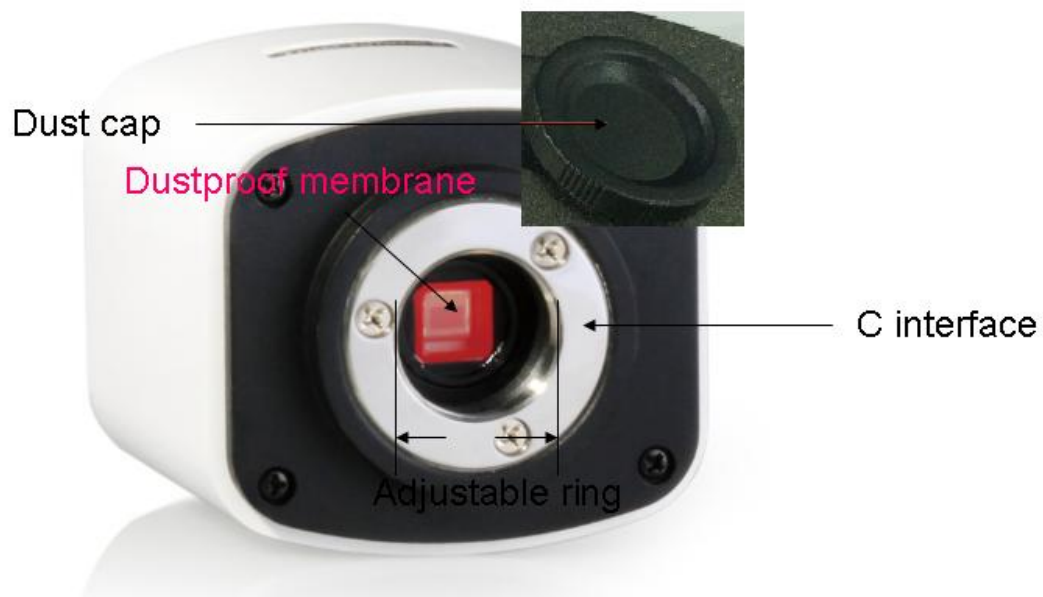
6.**C interface**：The optical interface is standard C interface.

7**. Adjustable ring:** It is allowed to adjust the adjustable ring after loose those three fixing screws to change the distance between the lens and the sensor. It is used to make the camera more flexible for different type lens.

8. **Anti-dust cap:** When the camera is NOT in use, please screw in the anti-dust cap to avoid the dust from the environment accumulating on the optical port.

9**. Anti-dust eal:** The seal will be placed on the camera optical port when it left the factory. It is used to avoid the dust accumulating during the transport. **Please remove the seal first and then attach to the lens or microscope when fist time use the camera.**

Chapter 3 HDMI Operation

Fig1. TrueChrome-Ⅱ

1. Connect the power with a 12V2A adapter。
2. A USB mouse is help to control the camera freely。
As seen in fig.1，a HDMI connect the camera and screen, and the screen just exhibit the real time signals, and the mouse can control the camera parameters.
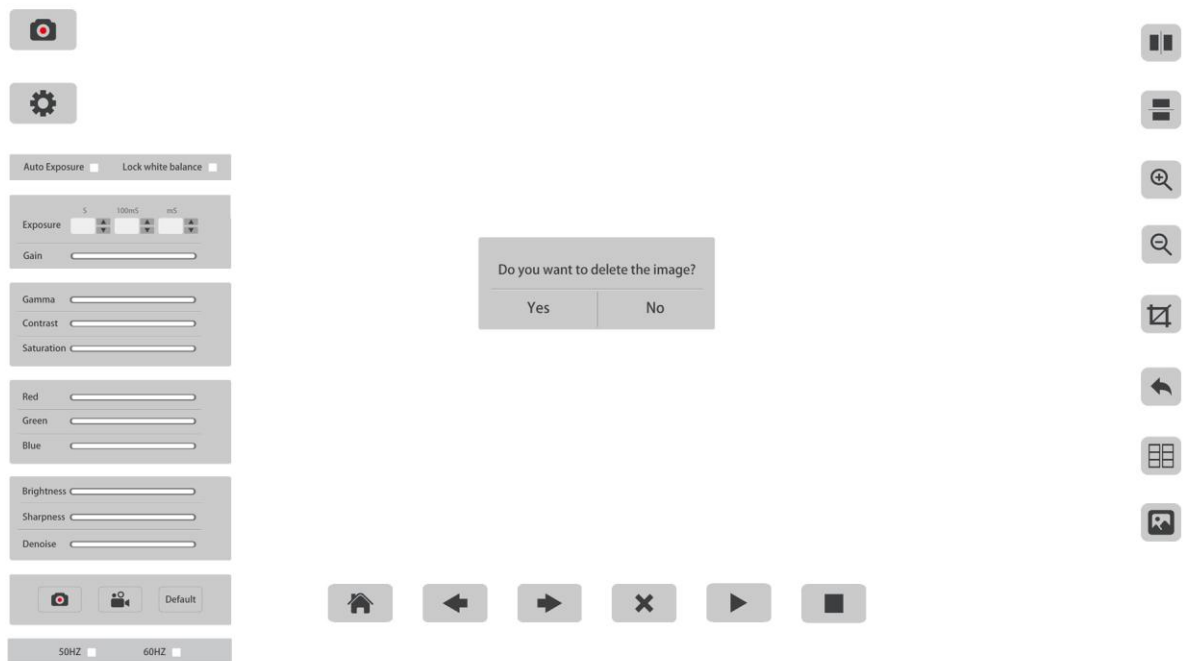
Fig.2. TrueChrome-Ⅱmain control interafce

Bunt the open and close key after you connect the camera well, you can see the main control interface.

Requirement ：

（1）The camera is starting with the preview window.

（2）When move the mouse to the far left, the screen will show capture, setting button. Click the setting button, popup menu item parameter setting.

So in the Fig.2, the main control interface includes preview, capture, video, and later processing the image.
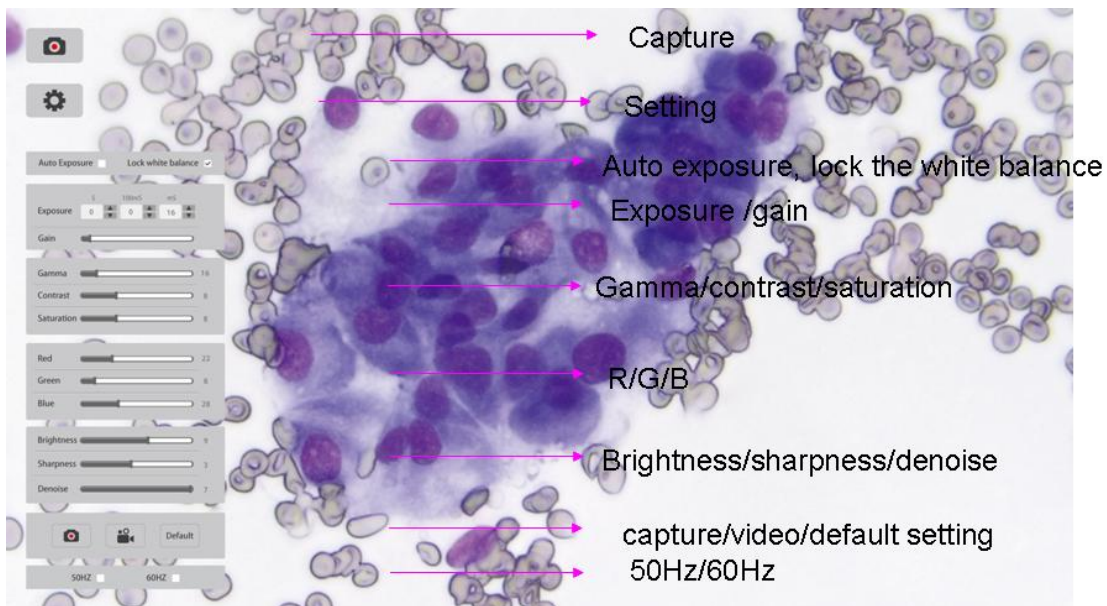
Fig.3. The left buttons and corresponding illustration

Click ⚙ , a series operation of auto exposure, lock the white balance and color control. A key for you, please lock the white balance in a white background and then move to the object and manipulate the auto or manual exposure.
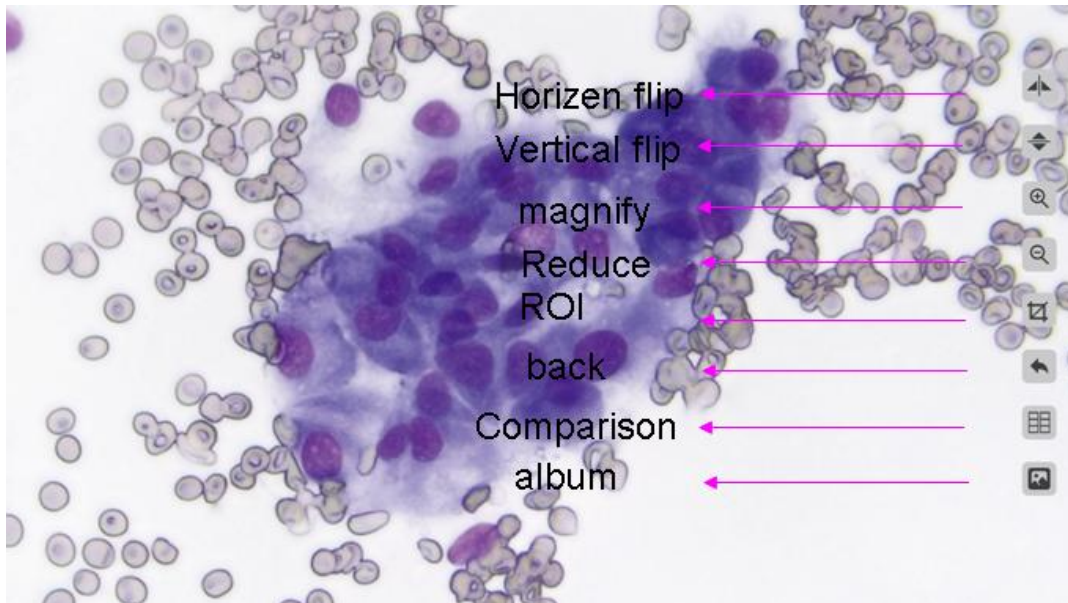
Fig.4. The right buttons and corresponding illustration

Move the mouse to the right of the screen, you can see Fig.4. Here, you can do like transposition, scaling, shearing, and also enter into the pictures fold.
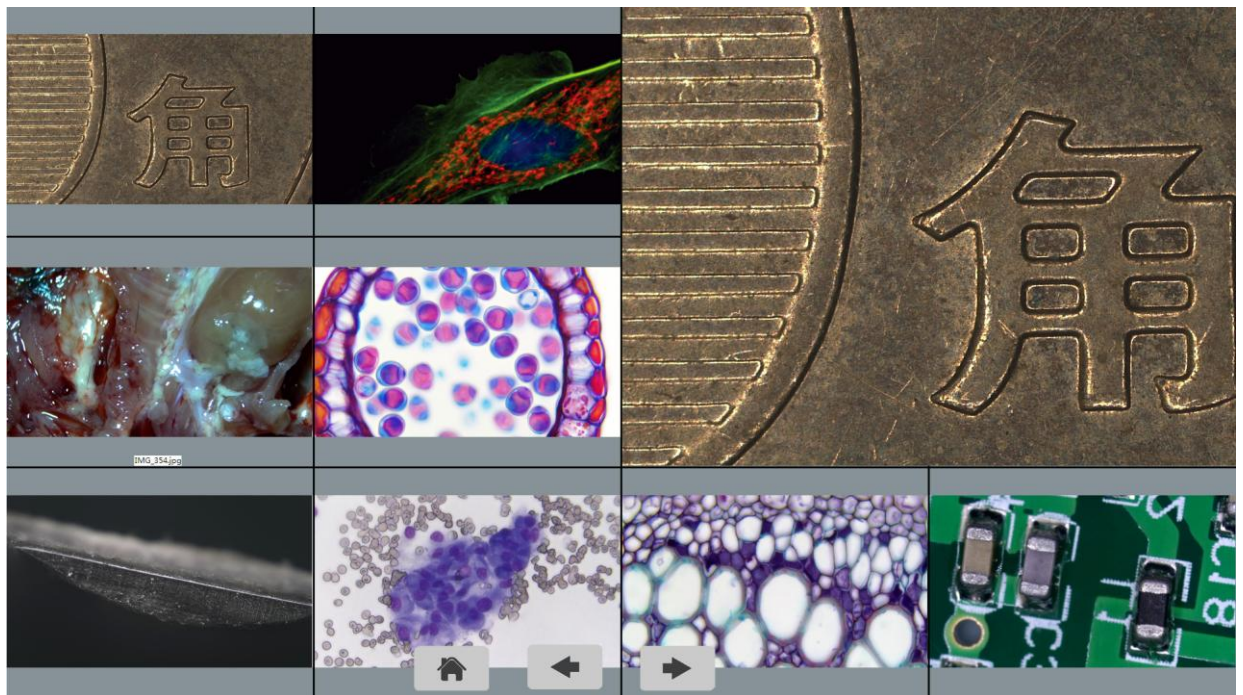

Fig.5. Contrast the preview and the catching

Click and you can see fig.5, and you can contrast the preview and catching ones.

Fig.6. The album
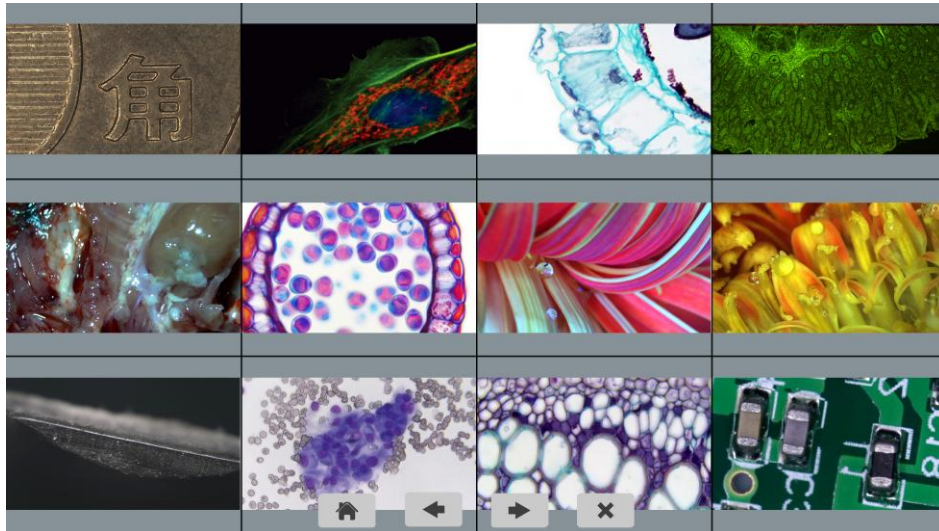
In the album，click ⌂ you can back to the preview quickly. ← and

→ help you see the upper or later picture and ✕ is the deleting operation.
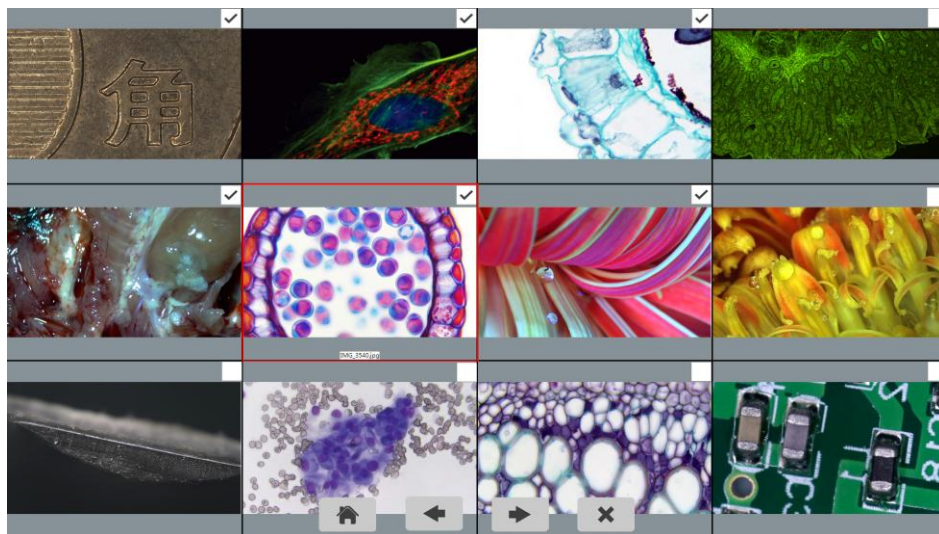

Fig.7. Mass select the image files

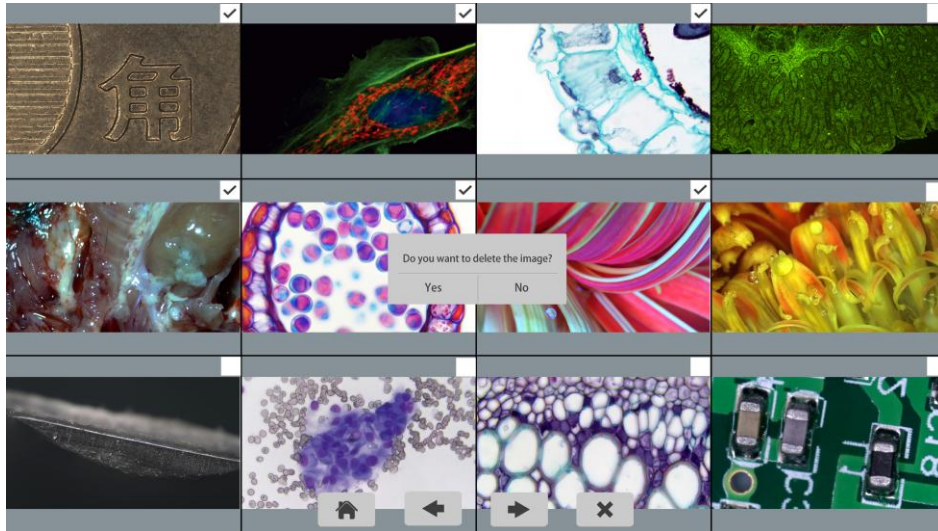If you want to delete the mass pictures, you can do as Fig.7 and Fig 8 illustrate.
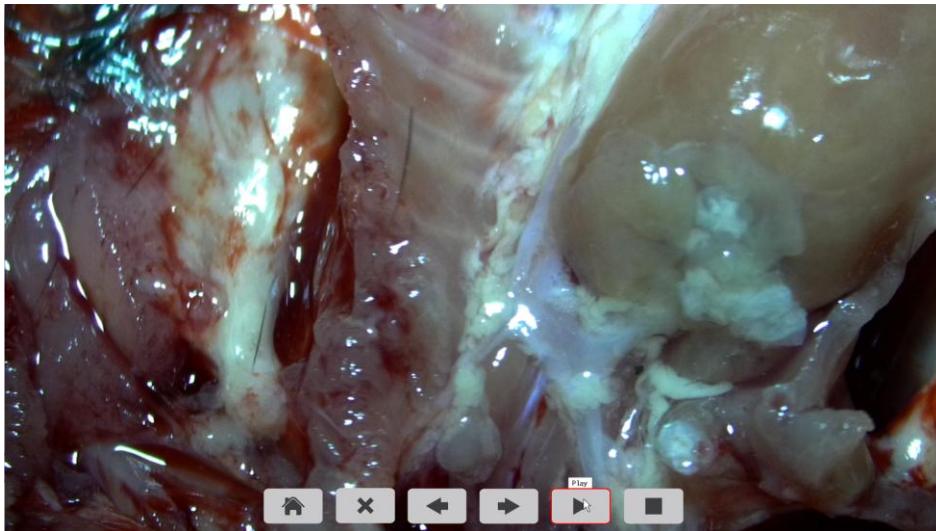
Fig.8. Mass delete the pictures

Fig.9. Play the video

When you check the album, you can play the video directly as seen in Fig.9.In the process interface, ▢ can stop the playing. Then you can do following operations, ⌂ back to the preview, ✕ delete the video files, ◀ and ▶ help to select the upper and later picture, ▶ is a button to stop or pause the video.

Chapter 4 USB Operation

Fig.4-1. USB used for the ISCapture operation

（1） The power adapter is 12V2A. After you connect the camera well you can bunt the key cap to pulse on the camera, and then the blue light is working.

（2） A standard business to business USB help to transport the real time message from the camera to the PC.

（3） Free drive ISCapture is researched specifically for Truechrome. The simple user interface, the philosophy human nature characters help abecedarian to use the ISC easily and take photos as they want.

（4） If you discon the power or the camera, you have to restart the ISC soft for that its unsupported plug.
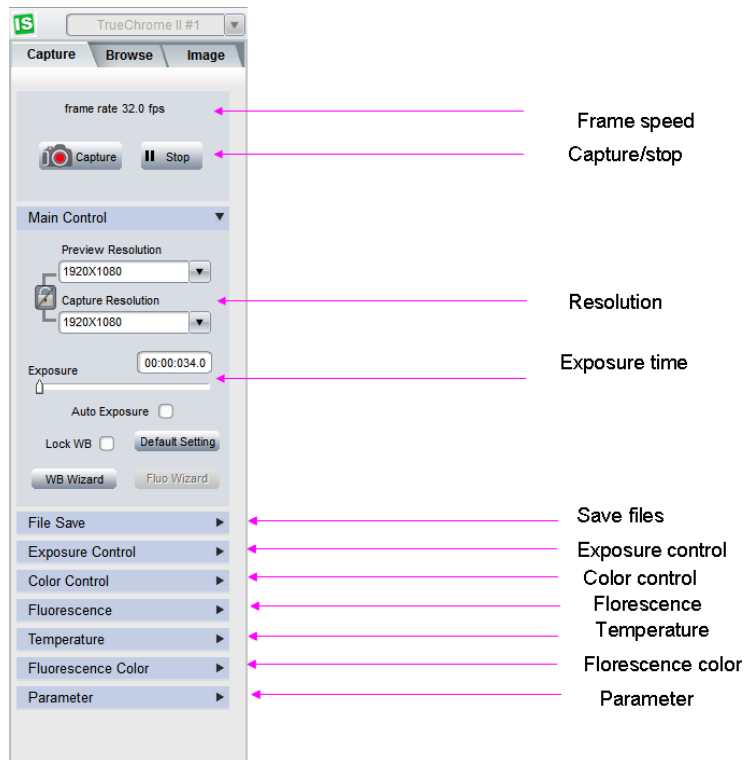
（5） The pictures are saved in your PC.

Fig.4-2. The left side of ISC Capture

（1） Open the ISC you can see the left side as Fig.4-2 shows. Caution: Please hold on nearly 3 seconds after you click [Lock WB] to initial the camera.

（2） Chose the [Frame Speed ○ Normal ● High], you can get an uncondensed picture with normal clock and a condensed picture with high clock. A reminding should give you that when your PC configurations are better enough you can get a high speed nearly 30 fps.

（3） Different camera performance florescence, temperature, and florescence color control functions or without the corresponding functions show grey.
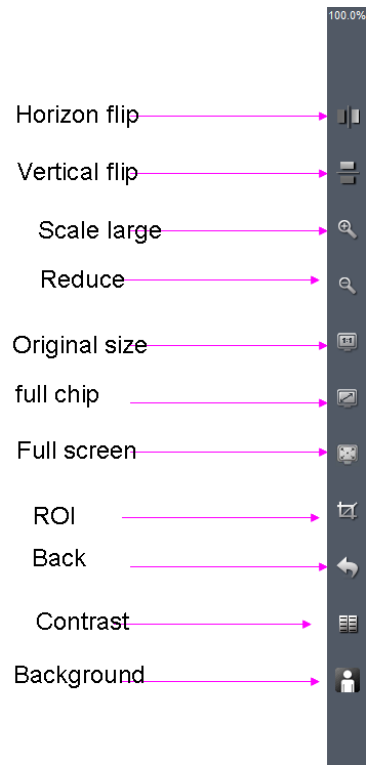
Fig.4-3. The right side of ISC Capture

（1） You can click the transposition operation to get a right preview, and you can also revolve the C ring to change the direction as you want.

（2） The zoom function help you to see the details of the objects.

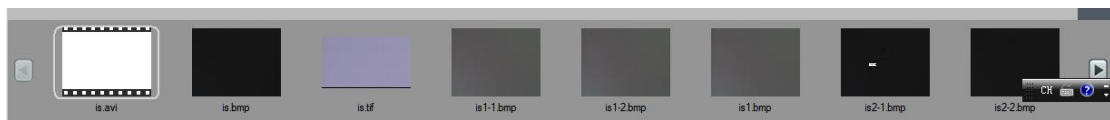（3） The background could be change to grey or black while you click [icon].

Fig.4-4. Files documents in small view

（1） You can select the right picture you want or click the [icon] to find more small pictures.

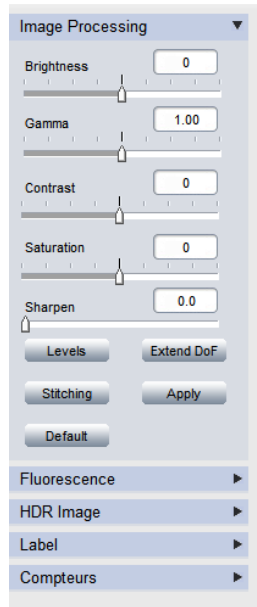（2） Further more, you can also batch select and delete.

Fig.4-5. Imaging processing   Fig.4-6. measurement
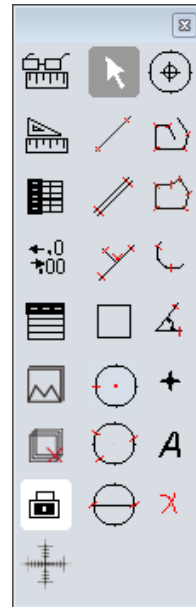
（1） Click the **Image** you can get Fig.4-5.

（2） There are many classical imaging processing function, like **Extend DoF** , **Stitching** , **HDR Image** , **Fluorescence** ▼ . So, you may choose the right one you want.

（3） **Measure** tell you how to measure in Fig.4-6.

（4） The mark in dynamic and static could be saved together.
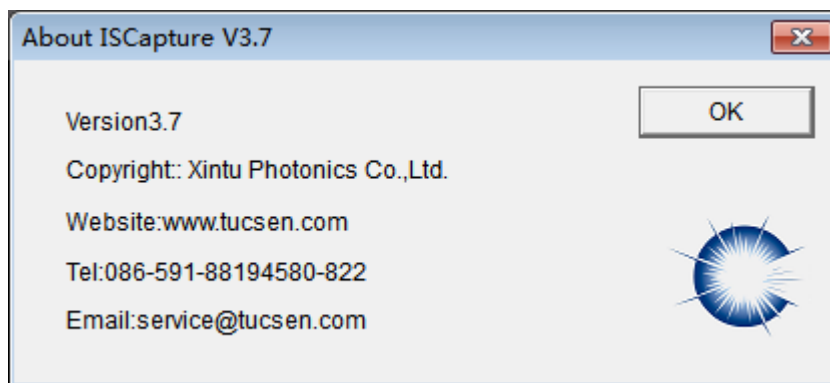
Fig.4-7. About ISCapture

（1） Please contact our staff for more details about ISC in 'ISC User Guide'.

（2） All the power to interpret the Fuzhou Xintu photoelectronic Co., Ltd.

Appendix A Technical parameters

Frame speed：HDMI　　1920*1080　　30fps

　　　　　　　USB　　1920*1080　　30fps

Output port：microSD 卡、 HDMI、 USB2.0

Dynamic resolution：1920*1080

Exposure time：HDMI　　　　　0.001-10s

　　　　　　　USB　　　　　　0.001-10s

Video：1080P　　30fps

Operation system：XP and above，Mac OSX

Microsoft：HDMI free drive

　　　　　USB ISCapture

Appendix B Basic technical parameter

Key function

1.1.main menu
（1）拍照　　　　　　　Capture
（2）设置　　　　　　　 Settings
2.2.setting parameter
（3）恢复默认　　　　Default
（4）锁定白平衡　　　　 Lock White Balance
（5）自动/手动曝光　　　 Auto/Manual Exposure
（6）增益　　　　　　Gain
（7）伽玛　　　　　　Gamma
（8）对比度　　　　　　Contrast
（9）饱和度　　　　　　Saturation
（10）R/G/B
（11）亮度　　　　　　 Brightness
（12）锐度　　　　　　　 Sharpness
（13）降噪　　　　　　Denoise
（14）录像　　　　　　Video

2.3 the right interface
（15）水平翻转　　　　Flip H
（16）垂直翻转　　　　　 Flip V
（17）放大　　　　　　Zoom In
（18）缩小　　　　　　 Zoom Out
（19）ROI
（20）恢复　　　　　　Zoom Fit
（21）图像对比　　　　Compare
（22）相册　　　　　　Photos
2.4 the album
（24）首页　　　　　　Home
（25）左方向　　　　　　 Left
（26）右方向　　　　　　 Right
（27）删除　　　　　　Delete
（28）播放　　　　　　Live
（29）暂停　　　　　　Pause
（30）停止　　　　　　Stop

Appendix C   Structure

Left view

Main view

Right view

Back view

Planform

USB interface   HDMI interface   Power interface

SD card

Press bottum

C interface

3D-1

3D-2