

## MShot Image Analysis System

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## Introdcution

MShot Image Analysis System is independently designed by GuangZhou Micro-shot Technology Co., Ltd special for basic microscope imaging with Mshot cameras.

Fit to Windows Win7/8/10 (32bit & 64bit).

#### Main Function list

#### **Featured functions**

Burst

Timelapse

**Smart Denoise** 

Counting point

Anti-fliker: 50Hz, 60Hz

System logs & account control

Dynamic multi-images merge

Connect 4 cameras ones time

Auto image splicing

Auto extend depth of field

#### Fluorescence imaging

Histogram

Maximum & Minimum value

**RGB** channel

Input levels & Output levels

Dynamic multi-image merge

Merge channels

**Shifting correction** 

Split RGB channel

Quickly RGB dye

Line profile

Graying

#### **Image Capture & Video**

Exposure controls: Auto exposure, Exposure time, Global & Regional exposure, Gain,

Overexposure correction

Color adjustment: Automatic white balance, Global & Regional white balance, Monochrome, Invert,

RGB separate adjustment, Saturation

Resolution: Preview resolution& Capture resolution, ROI

Frame rate: Normal speed, high speed

Image Flip: Horizontal, Vertical

Image color depth: 8bit, 12bit (16bit for FIT image)

#### **Imaging processing**

Dynamic: Gamma, Contrast, Sharpness, Denoise

Static: Brightness, Contrast, Color phase, Saturation, Gamma, Smart brightness

Color adjustment: Automatic white balance, Global & Regional white balance, Monochrome, Invert,

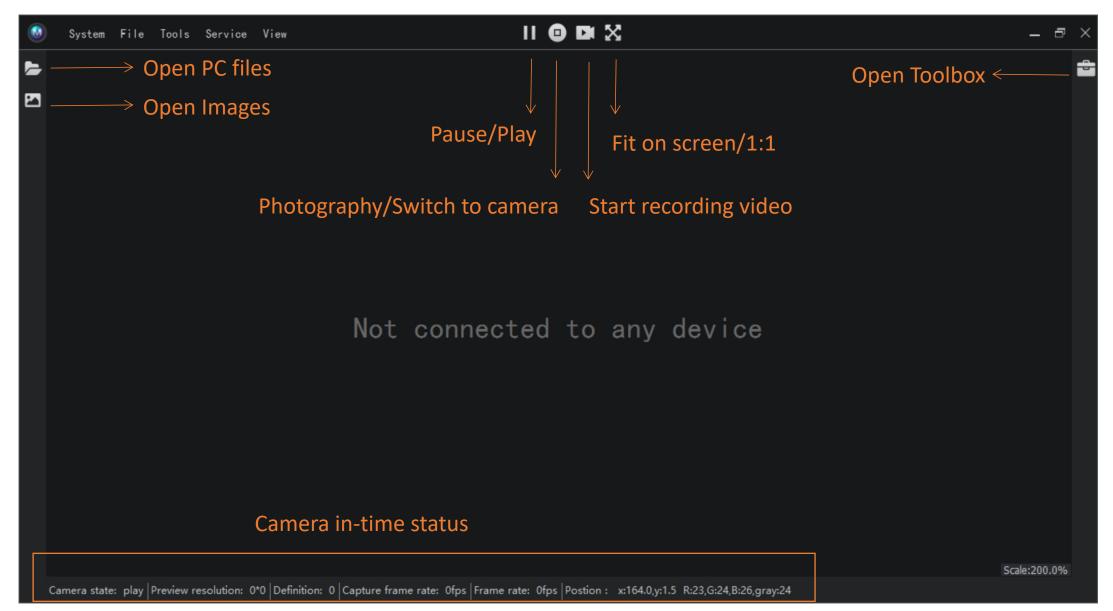
RGB separate adjustment, Saturation

#### **Measurement & Calibiration**

Text, Counting point, Straight Line, Segment Line, Rectangle, Polygon, Angle, Ellipse, Circle, Diameter Circle, Perimeter Circle, Parallel Line, Arrow, Scale Bar, Line Profile, Scale bar

**Export data to Excel** 

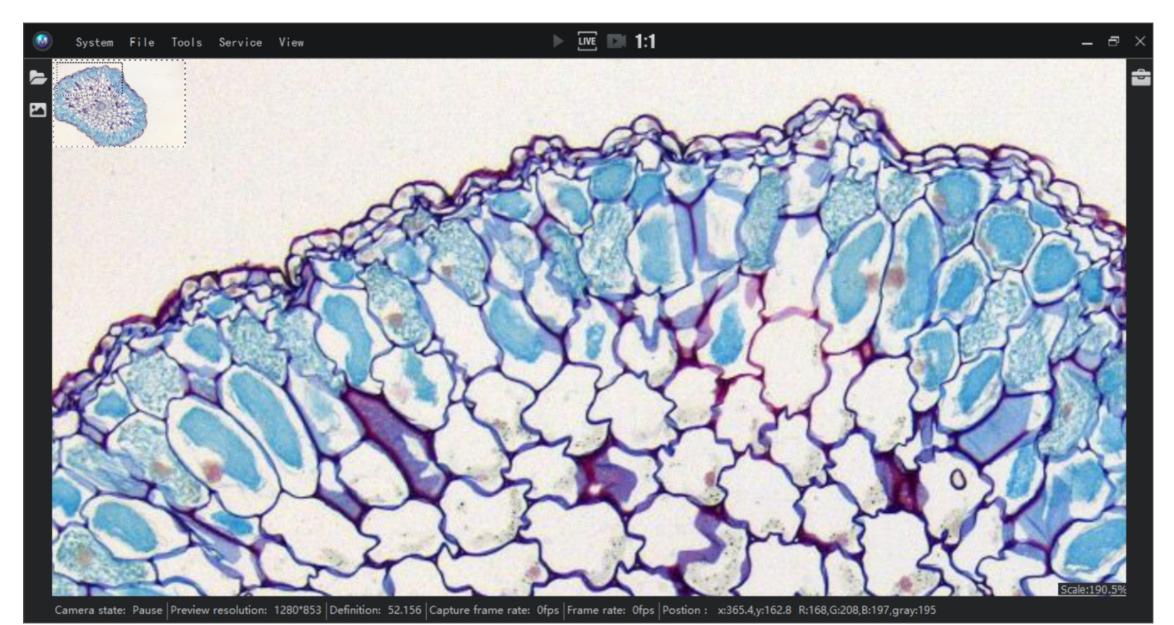
## Simplified UI



## Live view and capture image in PC files



## Zoom in and zoom out image freely in full screen



## All-in-one Toolbox panel



In-time connect and move to different cameras in one software no waiting



Camera item and resolution

Objective times

Image setting: capture/view resolution, ROI, etc.

Exposure control: gain, exposure time, etc.

Image processing: contrast, sharpness, gama, etc.

Color control: RGB, saturation.

Measurement: captured and live image measure.

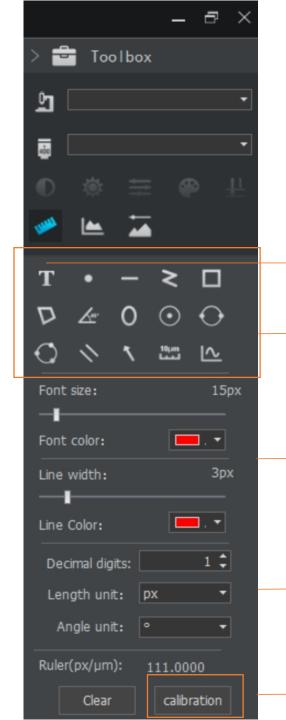
Static image processing: image crop, multichannel synthesis, etc.

Fluorescence processing: in time fluorescence combination,

fluorescence color adjustment, shifting correction, ect.

White blance

Histogram



## Measurement, Clibration, Text

Text label

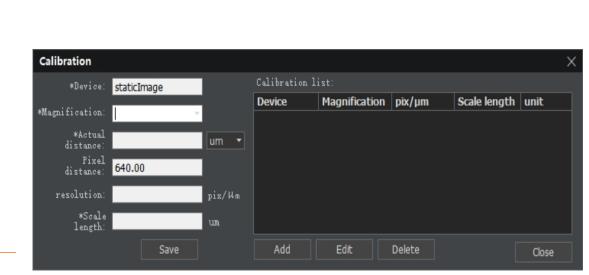
Text

Variety of measurment tools for captured image and live view image

Free set line size and color

Support different units

Calibration

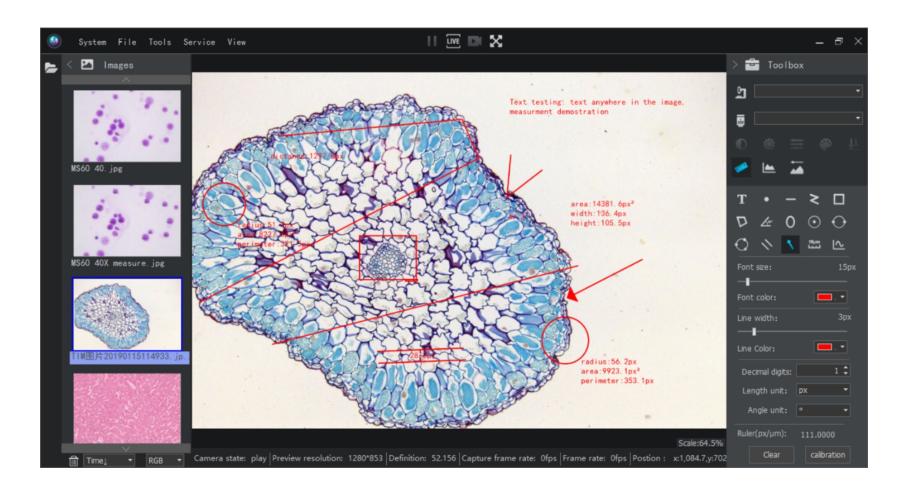


Cancel

## Measurement demostration

Text anywhere on the image

Measurement record moveable



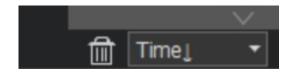
## Remove measurement data



Step 1: Cancel choose measure tool till panel gray

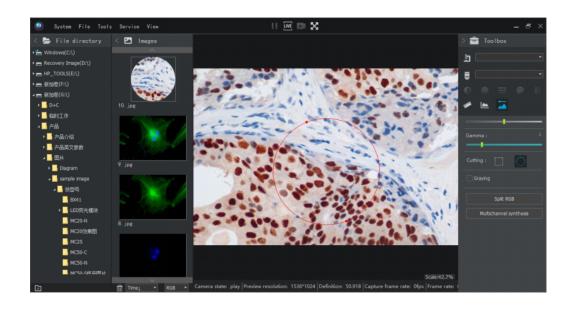
Step 2: Choose measure data, press PC keyboard Delete button

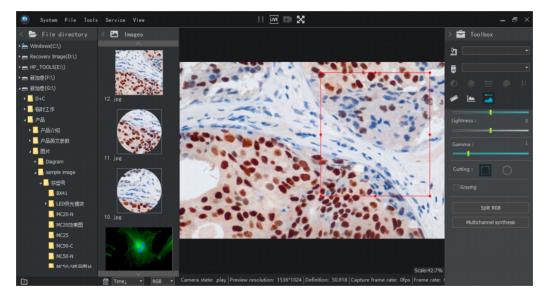
Can draw measure data to it remove





# Cut Image

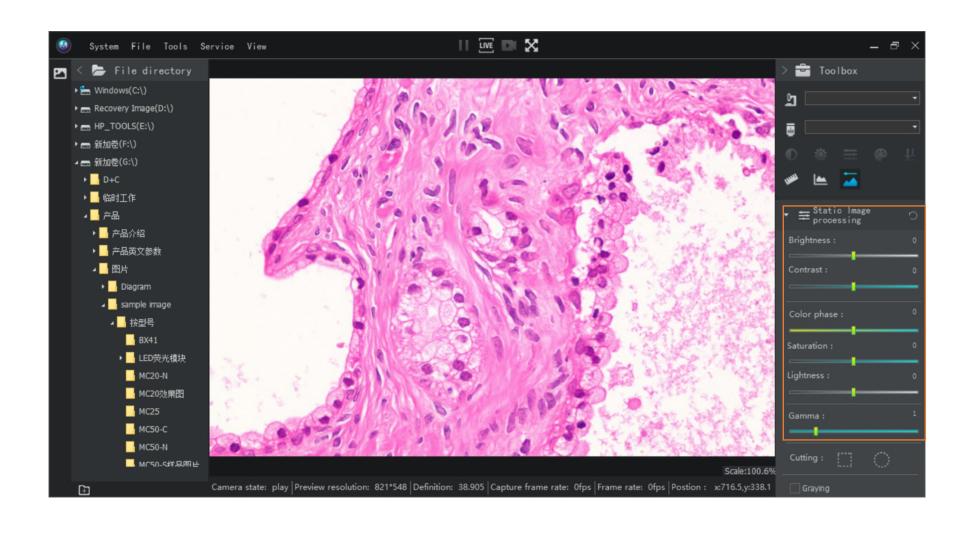




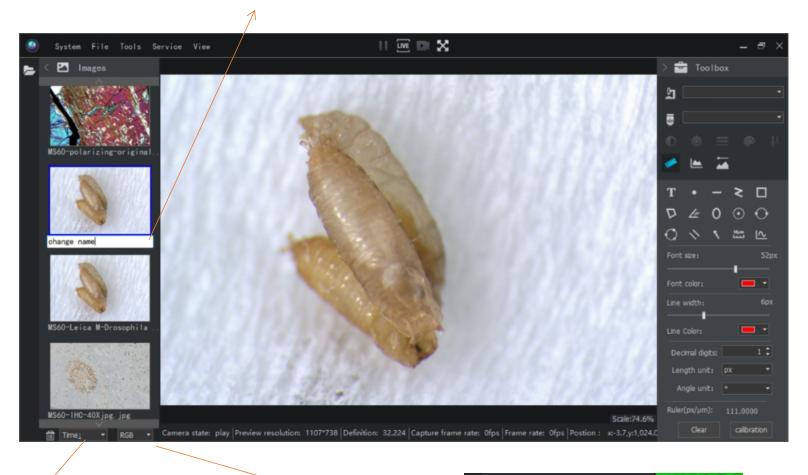
## Simple manual count

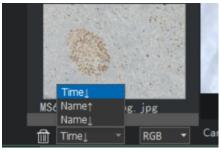


## Static image processing tools



### Double click to eidt image name



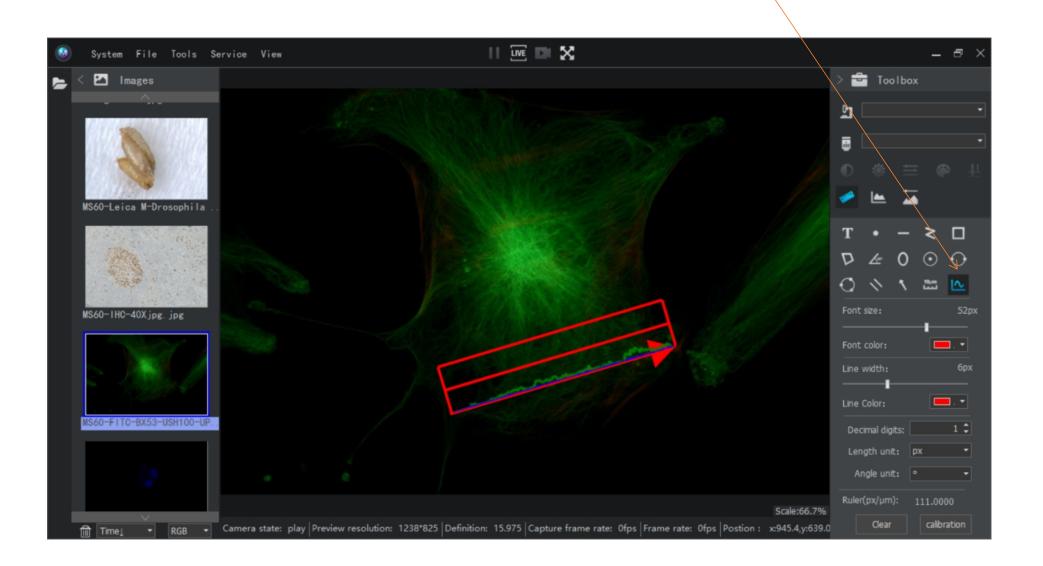


Make image in order by capture time or name

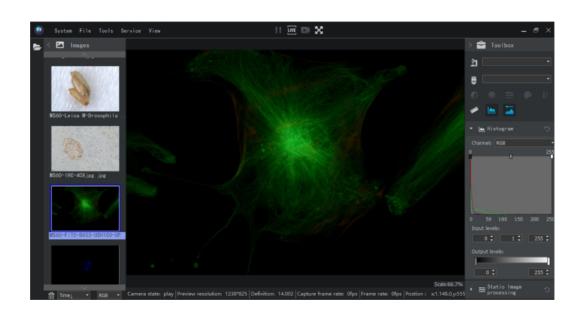


Quick auto dye image in RGB

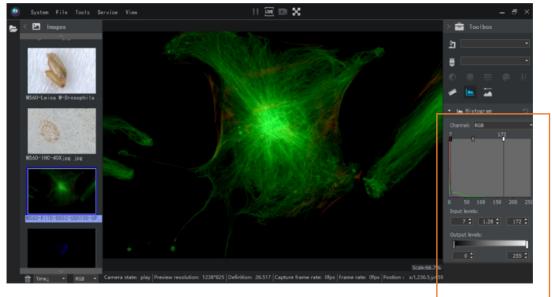
## Show light intensity



Histogram easy to get better fluorescence and reduce image noise

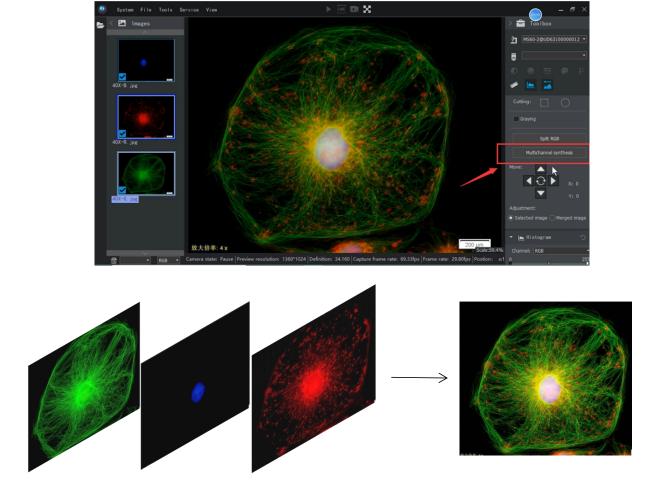


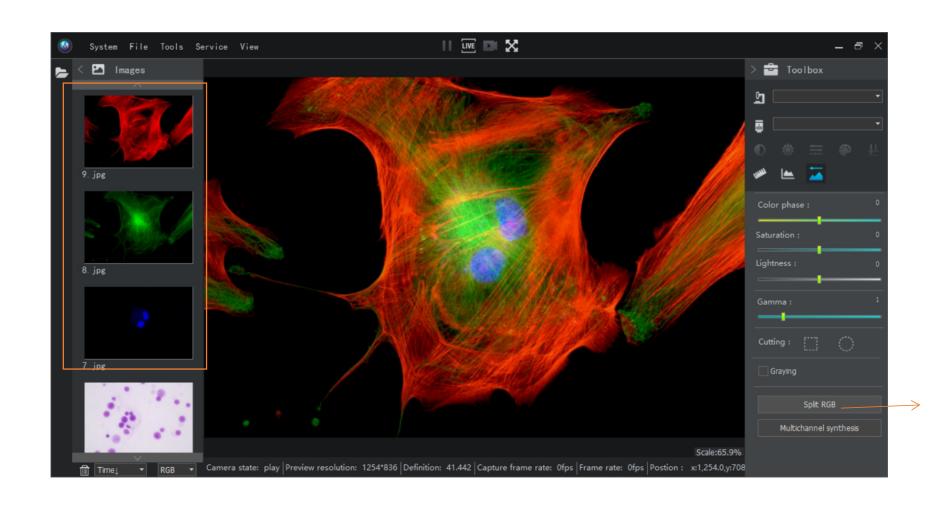




### Merge Channels

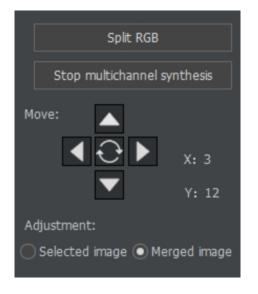
• Merge different color fluorescence images into a multi-color fluorescence image.

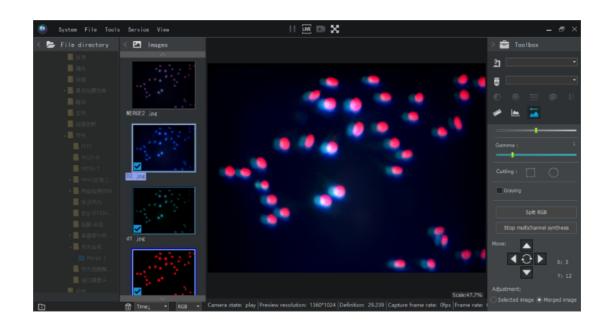


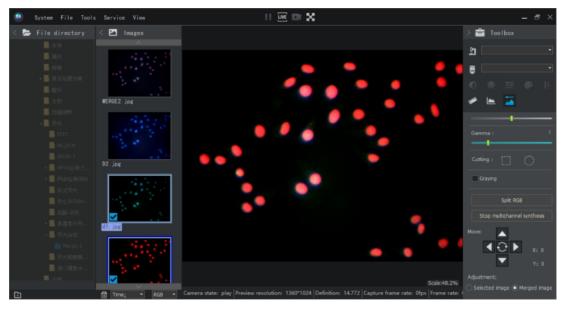


Split RGB

## Shifting and color correction Merged fluorescence image

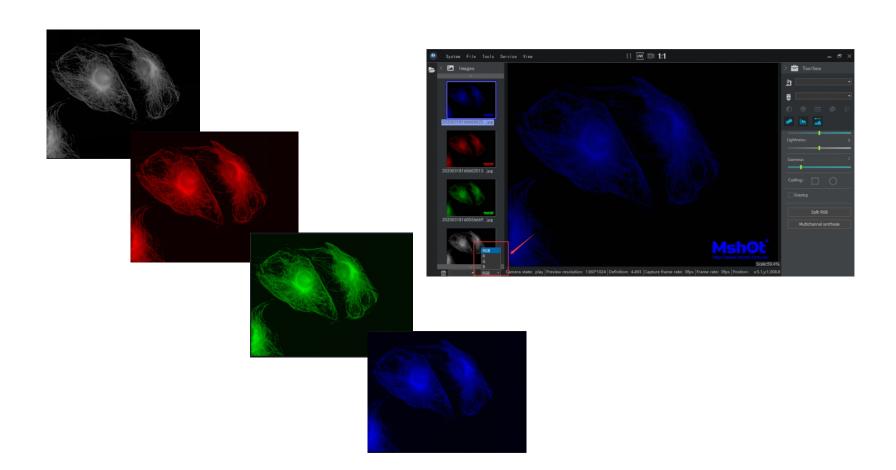


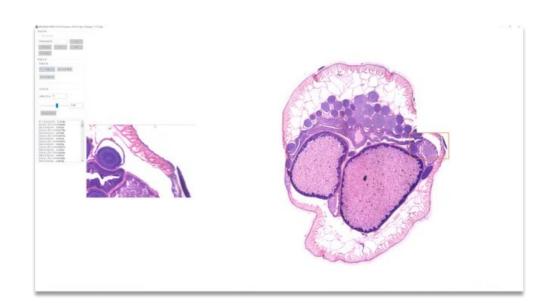




### Quickly dye

• Just choose R/G/B channel to dye the monochrome fluorescence image for quilkly observation.



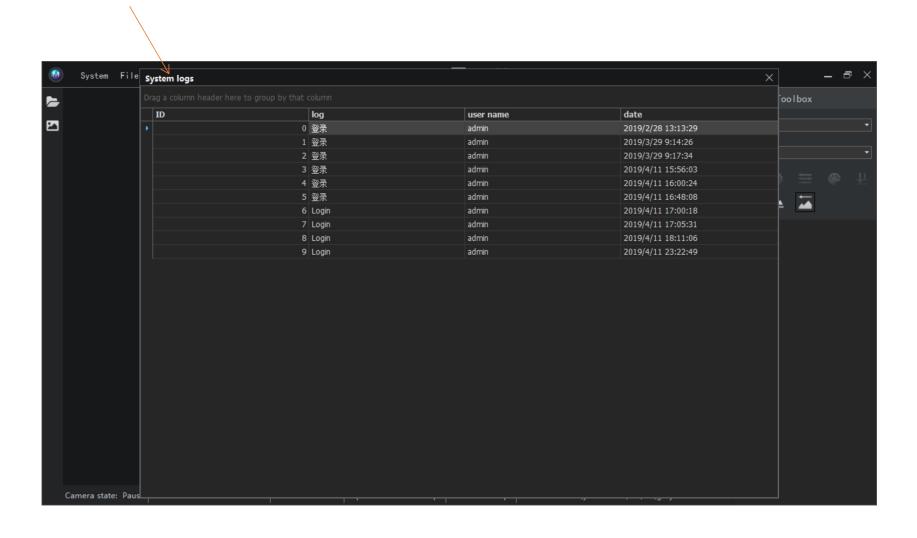


### **Auto image splicing**

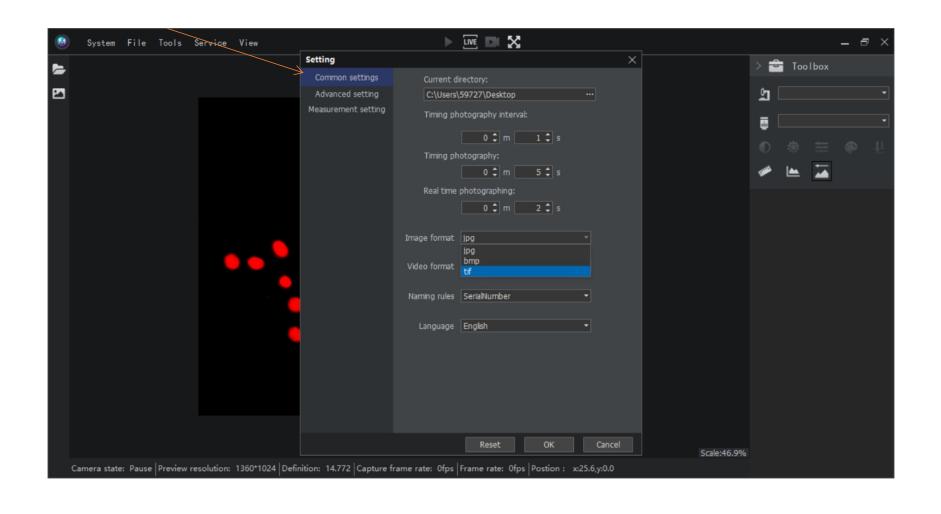


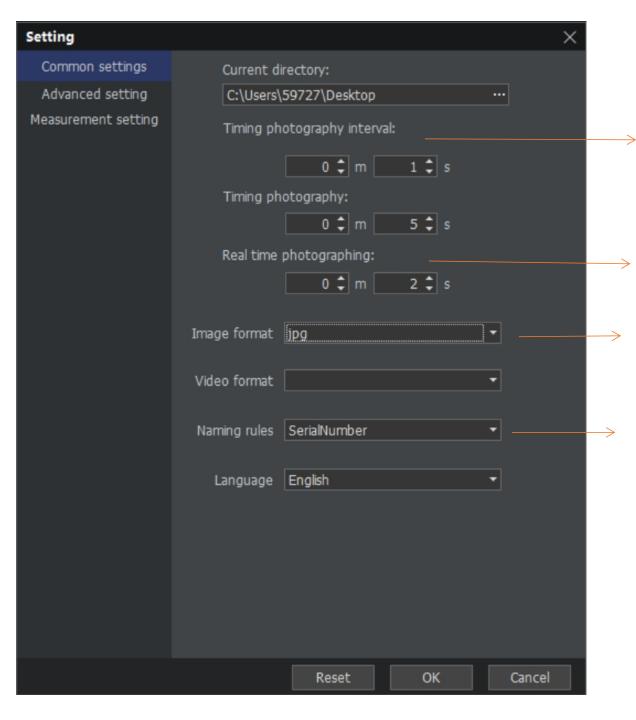
Auto extend depth of field

# Record user login time



## Set file, format, timing, language, etc



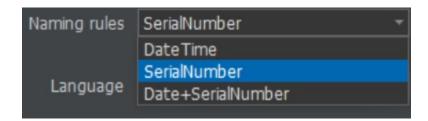


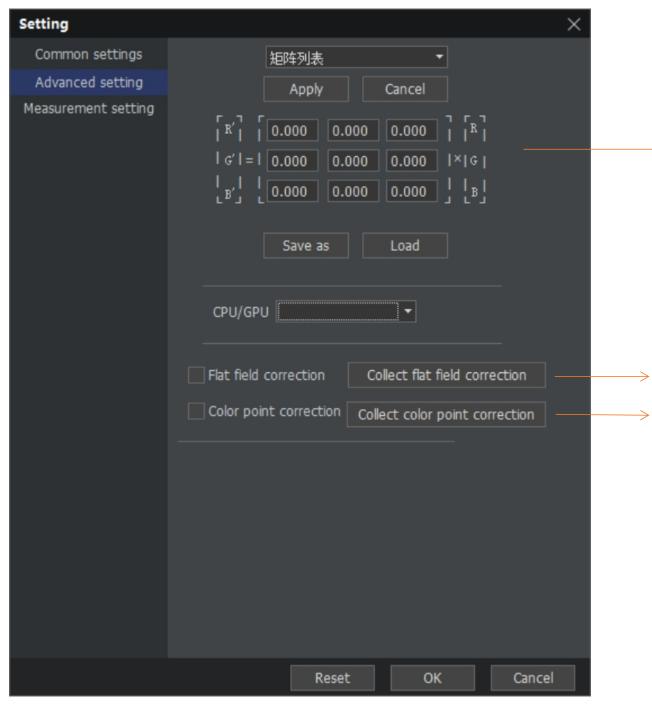
Capture image in interval time

Capture image of every frame rate in set time, such as 5s has 20fps, it will takes 20 images of every fps

Image format: jpg, tif, bmp support 16bit color depth

Set capture image auto name rules





Correct RGB calculating value to revise color balance

Correct image brightness and color uniform when connecting camera

Eliminate image dead pixels when connecting camera