ezcap Link User Guide

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Welcome to ezcap Link

Overview

ezcap Link is an all-in-one video recording and live streaming application software. It supports all ezcap's UVC video capture devices, and can achieve video recording up to 4K@30fps, 10bit video, HDR video …. In addition, it features schedule recording and image/animation capture. As a live streaming program, you can add various overlay elements, such as video sources, audio sources, pictures, video files, texts, etc., to achieve different PIP effects and broadcast live to multiple servers at the same time, and make the background of your camera transparent. Video Broadcast Share (VBS) allows you to view the recorded MP4 files through mobile phones and PC browsers, and you can also view real-time camera screen through VLC. Moreover, this versatile software also allows you to broadcast the current preview screen to multiple 3rd party programs as a virtual camera.

Features

Video Recording

- Supports all UVC video capture devices (4K input supported), and audio recording devices compatible with Windows WASAPI.
- Video special effects plug-ins included, such as: Flip, Mirror, Contrast, Brightness, Color adjustment and more.
- Schedule recording. Record once, every day, every week, or every month.
- Supports up to 4K@30fps, H.264@18M bitrate, MP4 recording. Audio can be encoded in AAC, AC3, MP3 formats, and the sampling rate is 48KHz.
- Supports GPU encoding acceleration. Compatible with AMD, Intel, NVIDIA video cards.
- Supports seamless split storage, and MP4 files can be split and stored automatically according to the setting.
- Supports image capture and animated GIF capture.

Live Streaming

- Supports PIP live streaming. The sources which can be added are video capture device, audio capture device, picture slideshow, video file and text.
- Add various filters such as flip, brightness, etc to the source.
- Save and load scene settings and quickly switch the live stream.
- Supports live broadcasting to multiple servers at the same time.
- Supports live re-connection. Once the disconnection is detected in the background, the live broadcast will restart automatically.

Share and live broadcast via LAN

- Video Broadcast Share allows you to enjoy the recorded MP4 file through the mobile phone and PC browser in the same local area network.

- Supports live broadcast, so that you can view real-time camera screen through VLC.

Virtual camera

- Supports broadcasting the current preview screen to multiple 3rd party programs as a virtual camera.
- Various filters available used for video adjustment.
- Work with multiple third-party programs at the same time, to meet your needs of multiple applications using the same camera.
- Supports live scene virtualization, to meet the needs of virtualizing a loop video file as a camera.

System Requirements

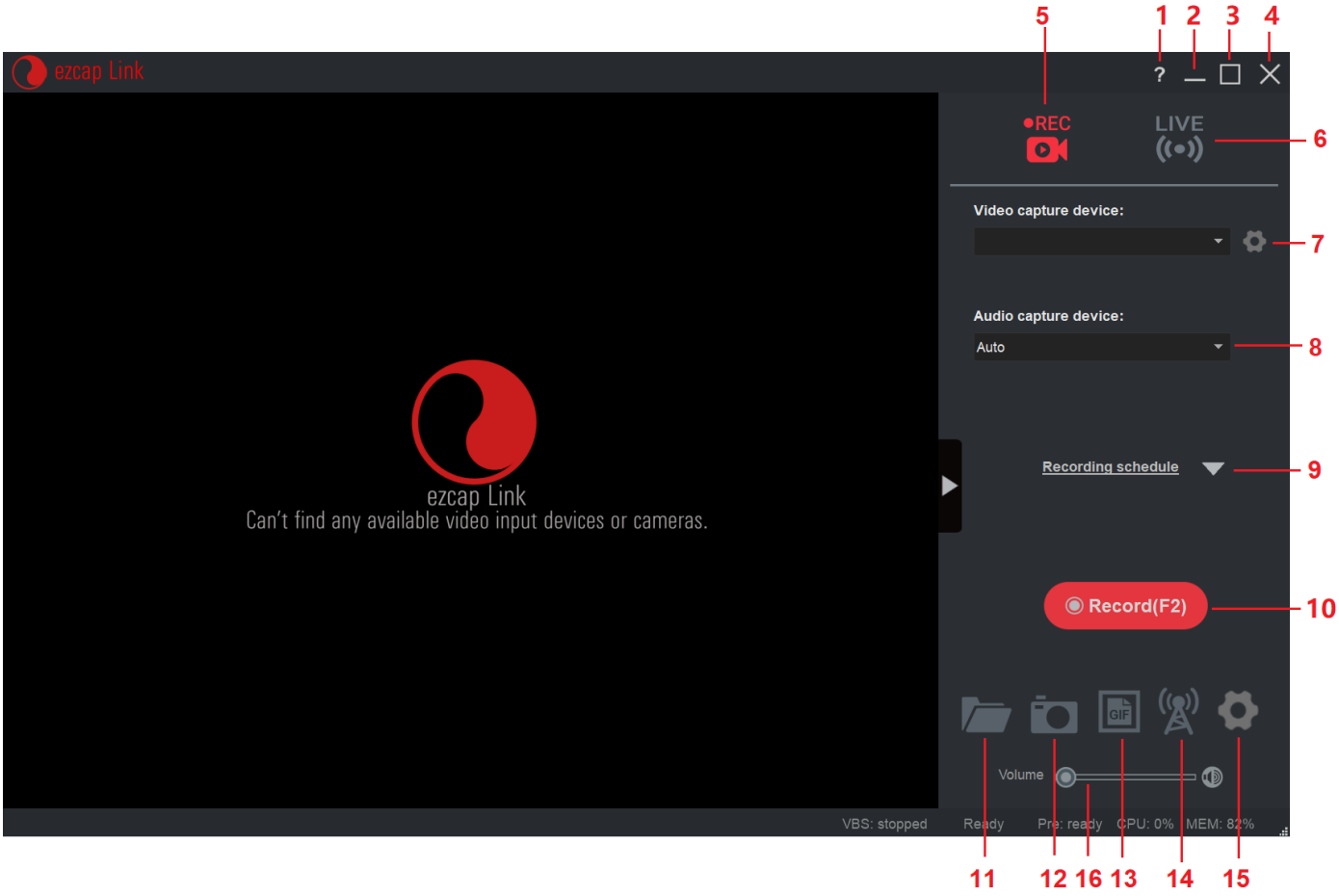
Minimum configuration - Laptop: Windows 7 64bit or above, Intel Core-i7-4810MQ or above, 8GB RAM, NVIDIA GeForce GTX 870M or above. **Laptop:** Windows 7 64bit or above, Intel Core-i7-3770 or above, 4GB RAM, NVIDIA GeForce GTX 650 / AMD Radeon R7 250X or above.

Recommended configuration (Recording 4Kp30 or 2Kp120) - Laptop: Windows 10 64bit, Intel Core-i7-7700HQ or above, 8GB RAM, NVIDIA GeForce GTX 1050 Ti or above. **Laptop:** Windows 10 64bit, Intel Core-i5-6XXX / AMD Ryzen 3XXX or above, 8GB RAM, NVIDIA GeForce GTX 1060 / AMD Rx 5700 or above.

Disclaimer

Getting Started

Main Interface



1. Main Menu: Click to open the "ezcap Link User Guide" pdf file.

2. Minimize: Click to minimize ezcap Link to the task bar.

3. Maximum: Click to maximum ezcap Link.

4. Close: Click to exit ezcap Link Helper.

5. REC: Click to display recording settings.

6. LIVE: Click to display streaming settings.

7. Video capture device: Click to select Video capture device.

8. Audio capture device: Click to select Audio capture device.

9. Recording Schedule: Set the start time, duration and recording frequency, and videos will be recorded automatically at the scheduled time.

10. Record: Click to start recording videos.

11. Show the file list: Click to open the “Videos & Images” window to show the captured videos and screenshots.

12. Capture an image: Click to capture a screenshot of the video.

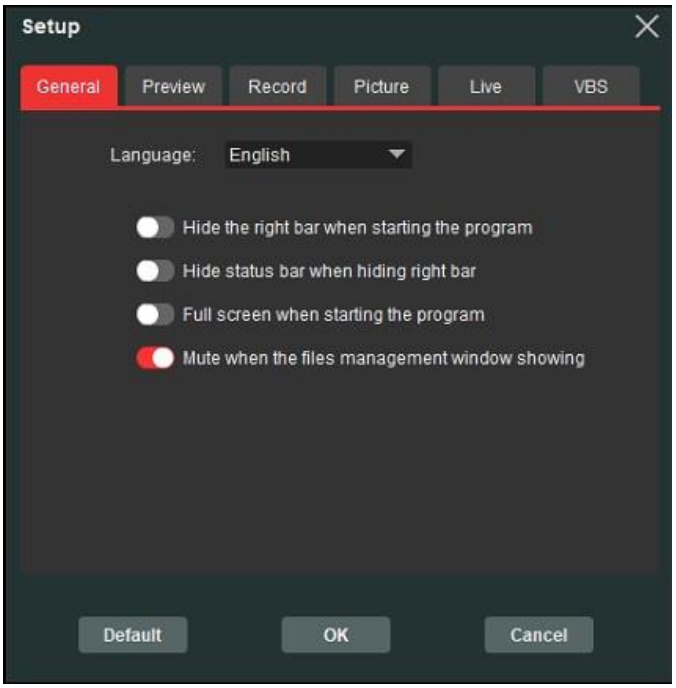
13. Capture a GIF: Click to capture a GIF picture, which lasts 30 seconds at most.

14. VBS: Click to start/stop live stream.

15. Advanced Setup: Click to advanced setup: General, Preview, Record, Picture, Live and VBS.

16. Sound volume: Adjust the sound volume of the video.

Advanced Setup



General

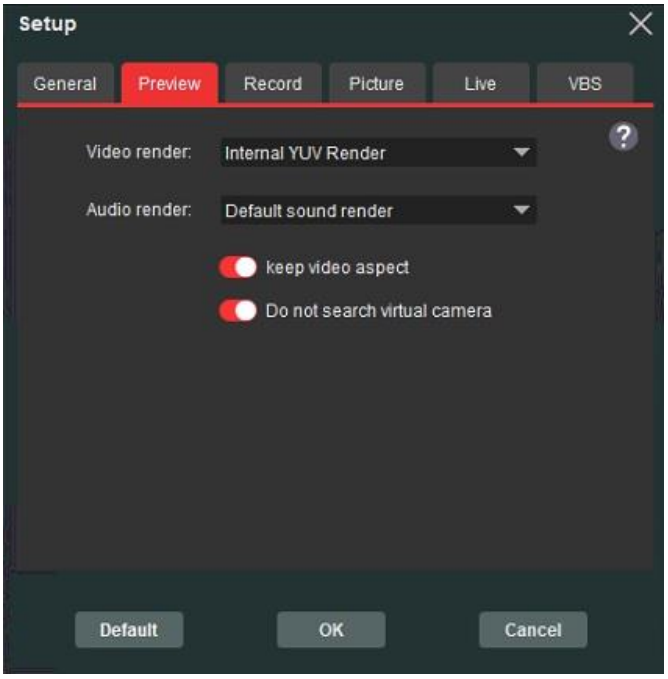
Language: Define the language to be displayed on the user interface.

Hide the right bar when starting the program: Switch on/off “Hide the right bar when starting the program” function.

Hide status bar when hiding right bar: Switch on/off “Hide status bar when hiding right bar” function.

Full screen when starting the program: Switch on/off “Full screen when starting the program” function.

Mute when the files management window showing: Switch on/off “Mute when the files management window showing” function.



Preview

Video render: The engine used to display the screen during preview. VMR9 has high quality, GPU acceleration, and high efficiency, but it will be delayed. YUV has high quality, low latency, and takes up more system resources. It is recommended for high-performance computers. VM7 is an alternative to VM9 and is used when VMR9 encounters problems. D3D9 is an alternative to YUV.

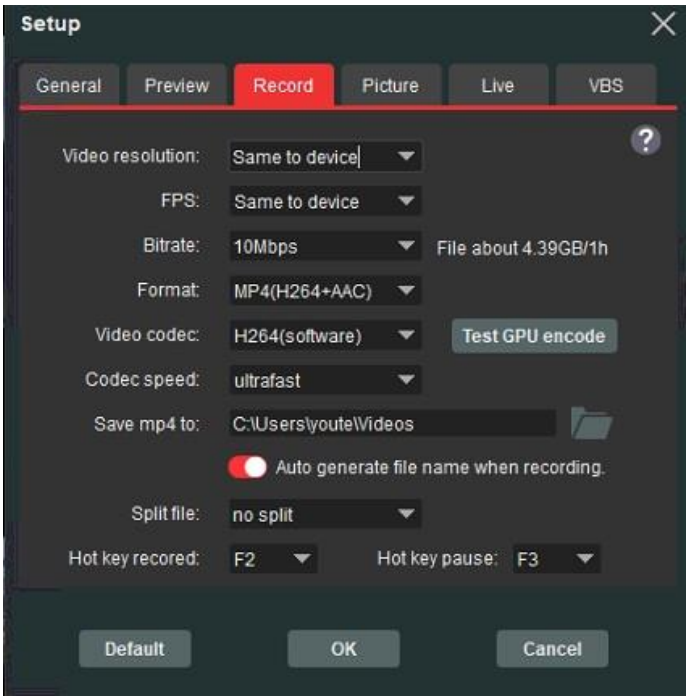
Note: All engines need to use the graphics card driver to ensure that the system has updated the latest graphics card driver.

Audio render: Desktop sound output device. Choose the settings according to your speaker connection. If a desktop stereo speaker is used, it is recommended to use the default setting.

Keep video aspect: Switch on/off “Keep video aspect” function.

Do not search virtual camera: Switch on/off “Do not search virtual camera” function.

NOTE: The settings on this page will change based on the connected device.



Record

Video Resolution: Set the recording resolution.

FPS: Set recording frame rate.

Bitrate: If you set it to a large value, you will get higher image quality, but with larger file size. If you set it to a small value, you will get lower image quality, but with smaller file size. 800Kbps, 1Mbps, 2Mbps, 5Mbps, 10Mbps and 18Mbps are available. If you set 10M, the output file size is about 4.39GB.

Format: Five options are available, which are MP4 format (video codec: H.264, audio codec: AAC) Variable/Constant FPS, MP4 format (video codec: H.264, audio codec: AC3), MP4 format (video codec: H.264, audio codec: MP3) and MPEG-TS format (video codec: H.264, audio codec: AAC). Default file format is H264(H264+AAC) Variable FPS. This format has high compatibility and is suitable for most computers. But if you want to record high-quality Mp4 files (can be edited by third-party software), you need to select H264(H264+AAC) Constant FPS.

Video codec: Select video codec.

Codec speed: Select codec speed.

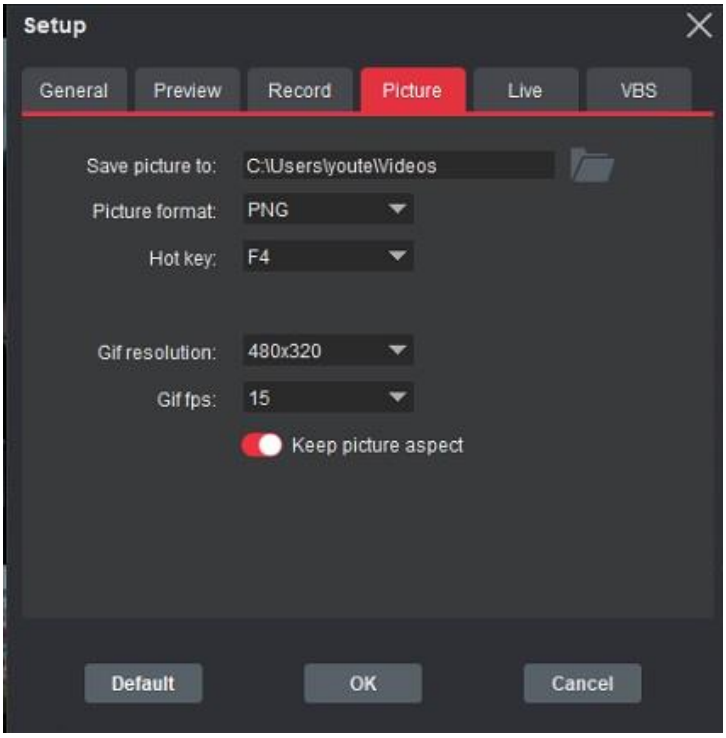
Save mp4 to: Displays the saving path of recorded videos. You can change the saving path by clicking on the folder button.

Automatically generate the file name when recording starts: If this option is selected, the titles of recorded videos will be named automatically.

Split file: Choose to split files or not.

Hot key recorded: Set the hotkey for starting and stopping recording videos. You can choose from F1 to F12.

Hot key pause: Set the hotkey for pausing. You can choose from F1 to F12.



Picture

Save picture to: Displays the saving path of pictures. You can change the saving path by clicking on the folder button.

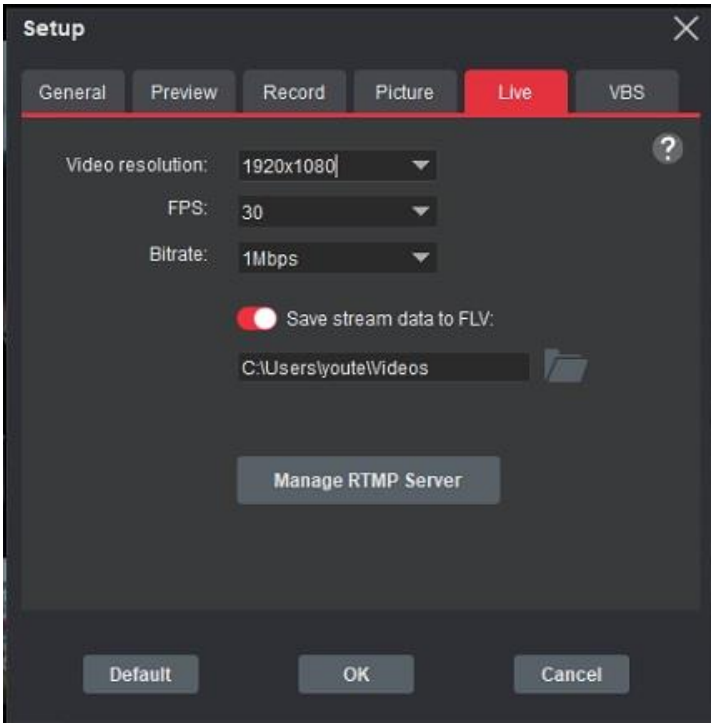
Picture format: Select the captured picture format. PNG, JPG and BMP are available.

Hotkey: Set the hotkey for capturing picture.

Gif Resolution: Set the resolution for the captured GIF picture.

Gif fps: Set the frame rate for the captured GIF picture.

Keep picture aspect: Switch on/off “Keep picture aspect” function.



Live

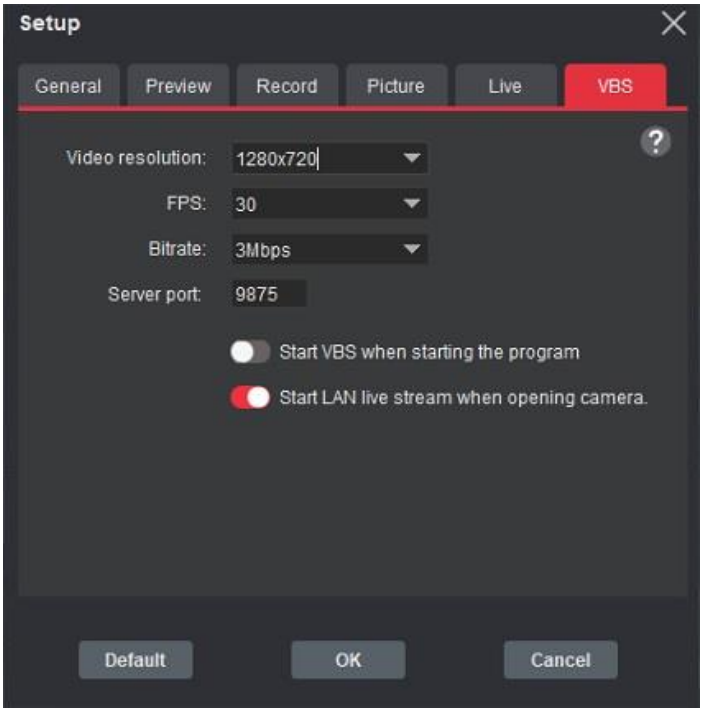
Video resolution: Set the streaming resolution.

FPS: Set recording frame rate.

Bitrate: Bitrate for live stream, please modify this value according to your network bandwidth.

Save stream data to FLV: If enabled this option, a flv file will create when live stream started.

Manage RTMP Server: Manage RTMP servers.



VBS

Video resolution: Set the VBS resolution.

FPS: Set VBS frame rate.

Bitrate: Set VBS bitrate value.

Server port: Port for http server.

Start VBS when starting the program: Select this option and the function of Video Broadcast Share will be enabled when starting the program.

Start LAN live stream when opening camera: Enable this option and it will start LAN live streaming when opening camera.

Default: Set default value.

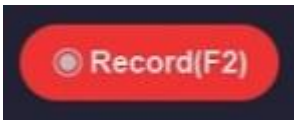
OK: Click to save the settings.

Cancel: Click to exit the “Setup” window without saving the settings.

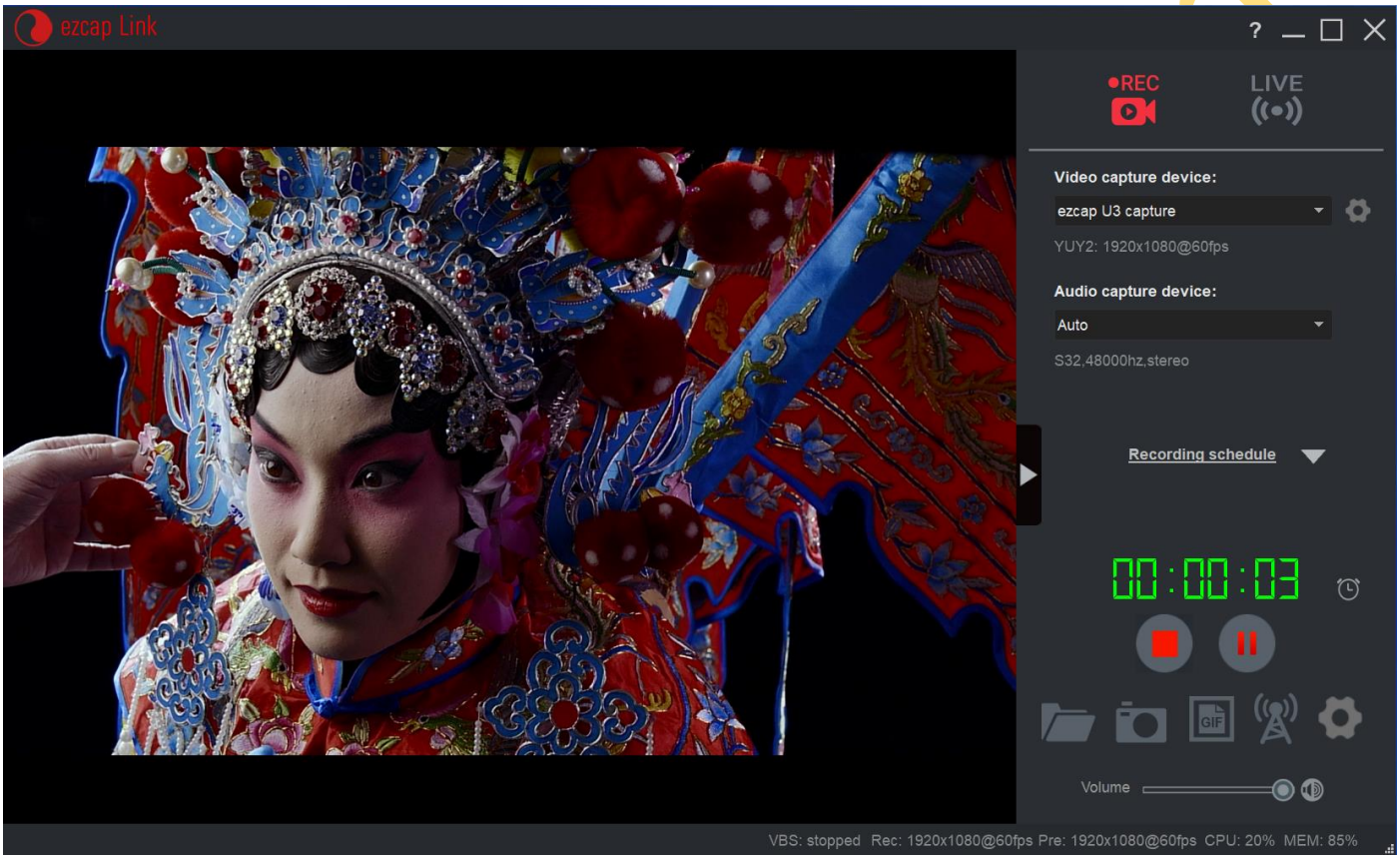
Note: The parameter options may change as the software upgrades. Please refer to the “Setup” window of the latest version of the software.

Record Video

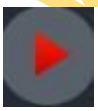
Record video

1. Run ezcap Link on your PC and play the video.
2. Click 

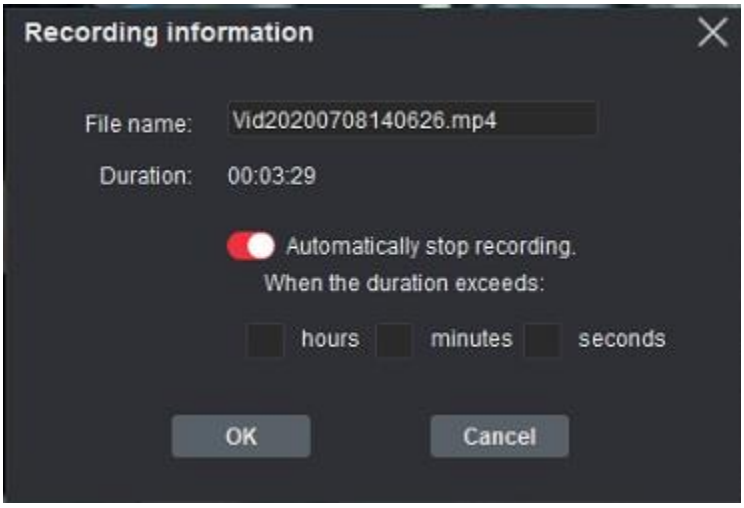
to start recording. (ezcap Link will detective hardware automatically)



3. Click  to stop recording.

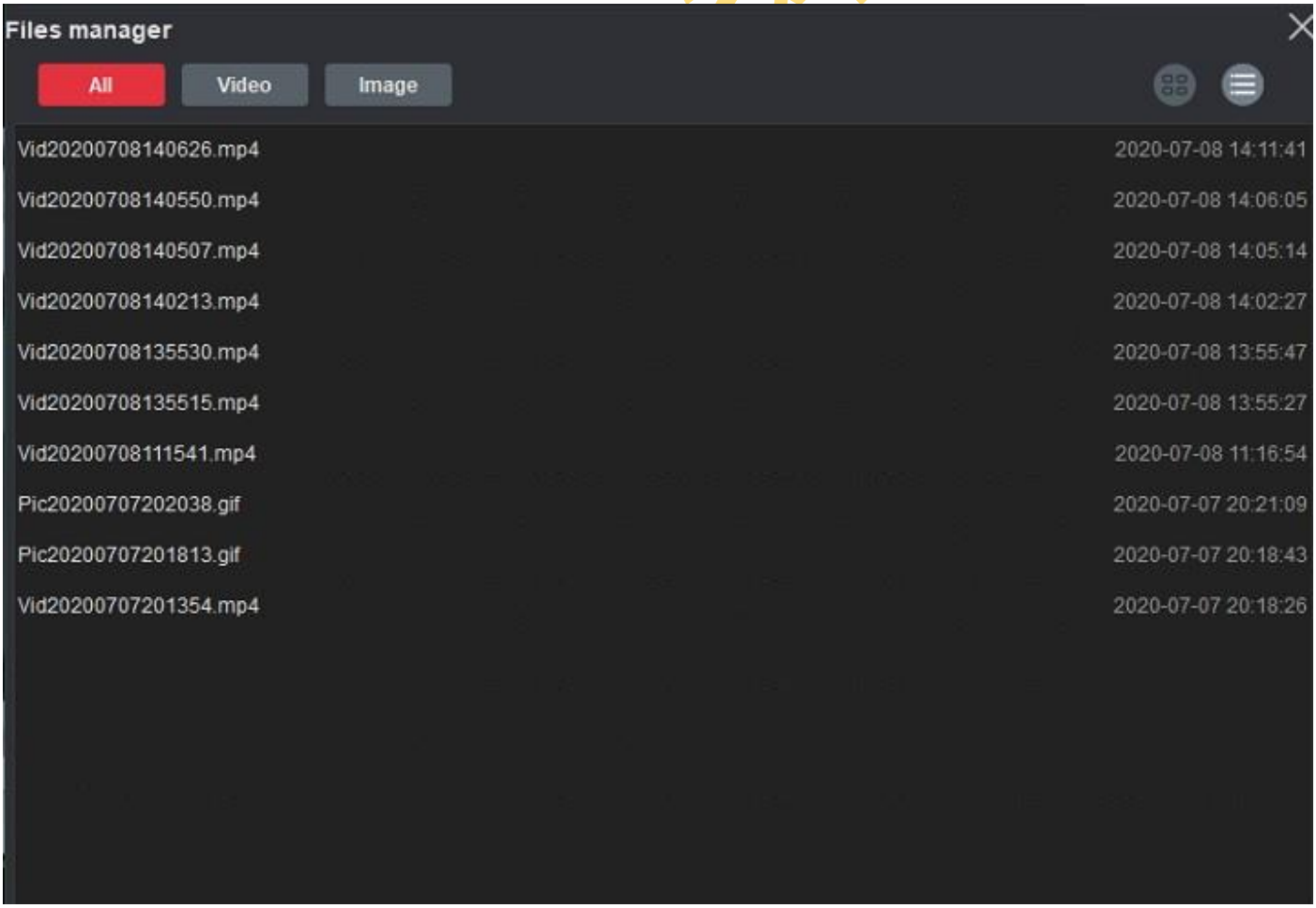
During recording, you can click  to pause at any time. When you want to resume, please click  to continue recording. Besides, you can click  to take screenshots or click  to capture a GIF picture.

You can click  to set up the duration of recording.



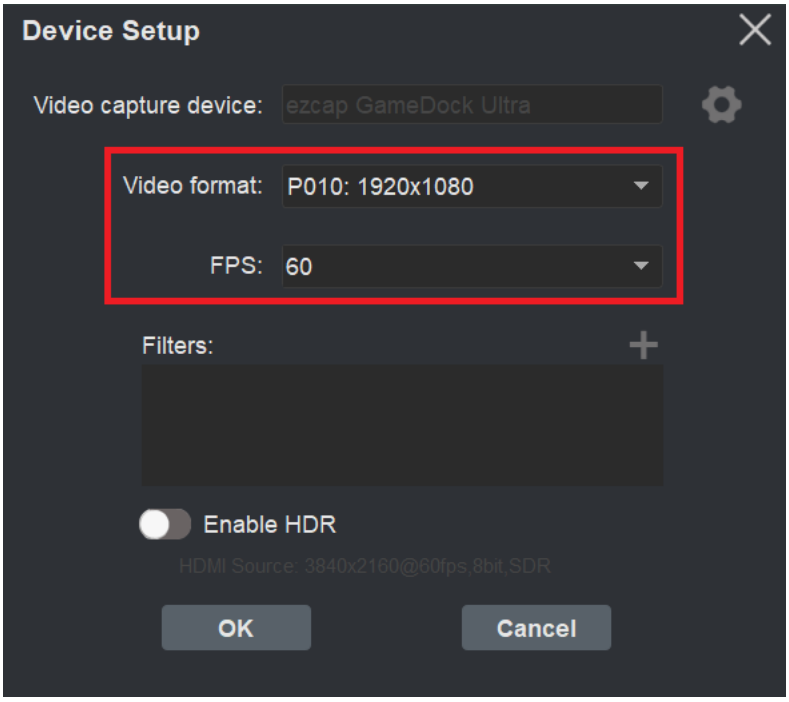
In this window, you can set the duration of this recording, and the file name.

4. After recording, click  to view the recorded video. Then you can double click the file to play back the recorded video directly.

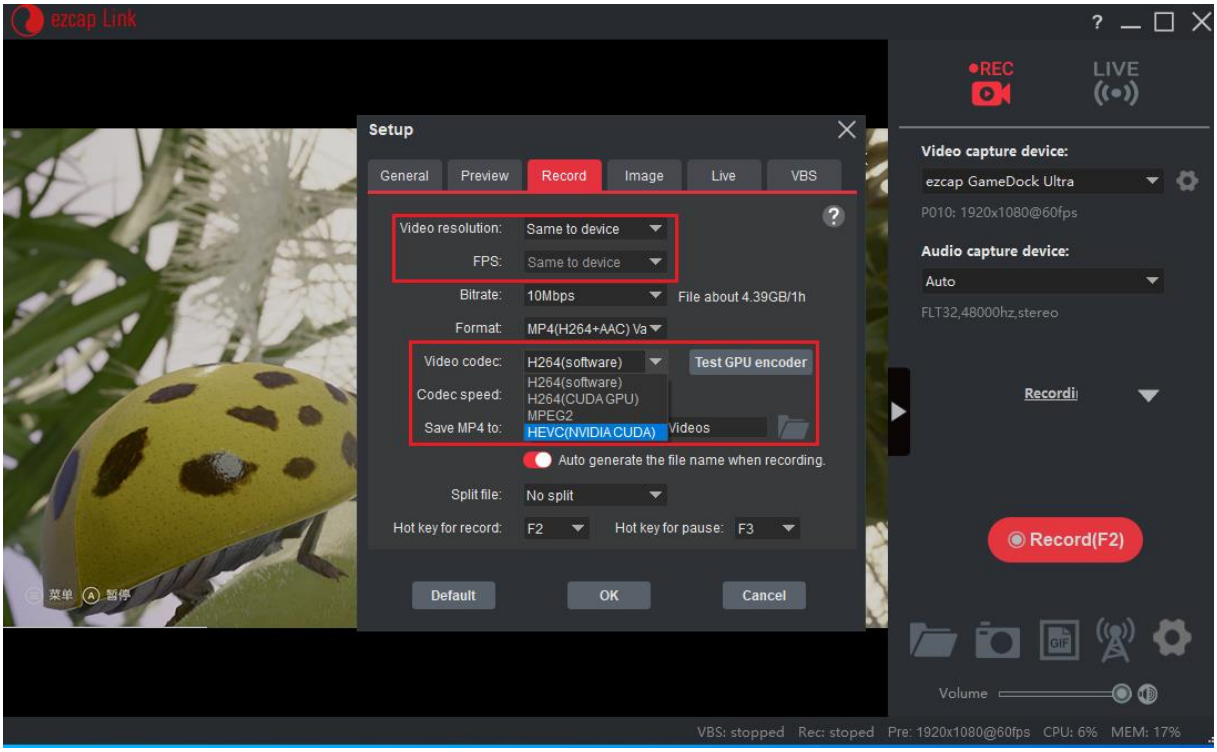


Record 10bit mp4

1. Please confirm whether your video capture device supports 10bit video format output. If not, you cannot get this function.
2. Run ezcap Link on your PC.
3. Click  next to “Video Capture Device” to open Device Setup interface, and set up device video format to P010.



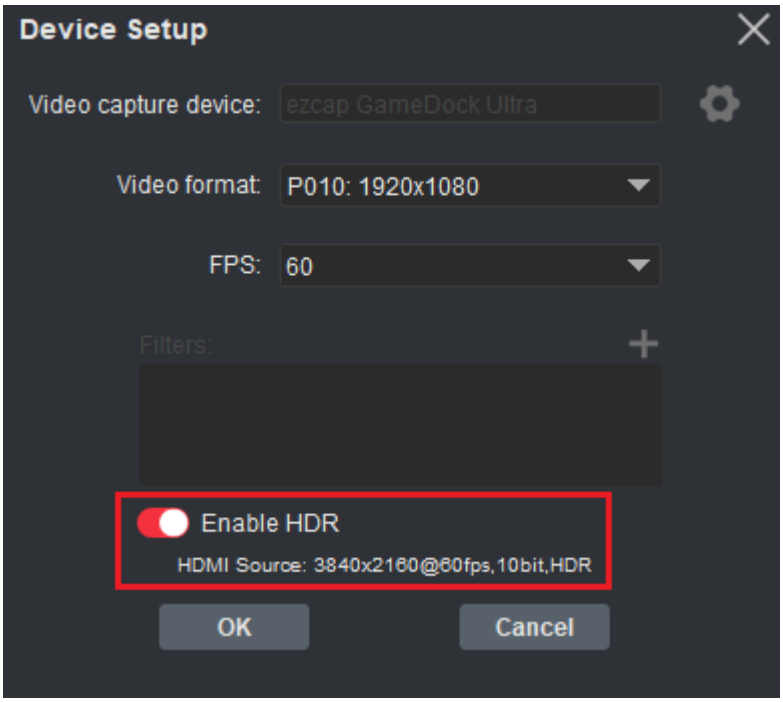
4. Click  general setup to set up recording encoder to h264(software) or HEVC (NVIDIA CUDA). Please make sure the video resolution and fps setting are “Same to device”.
   NOTE:
   click test GPU encoder to show GPU encoders in list.
   The video player of ezcap Link inside cannot play the recorded video of HEVC video codec right now. Please use other application software to open it.



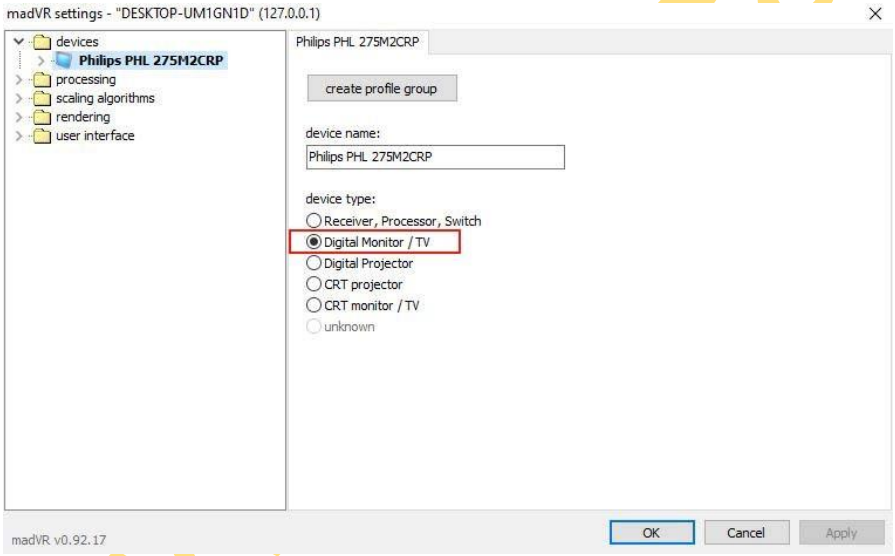
5. Click the “Record (F2)” button to record H264/H265 10bit MP4 file.

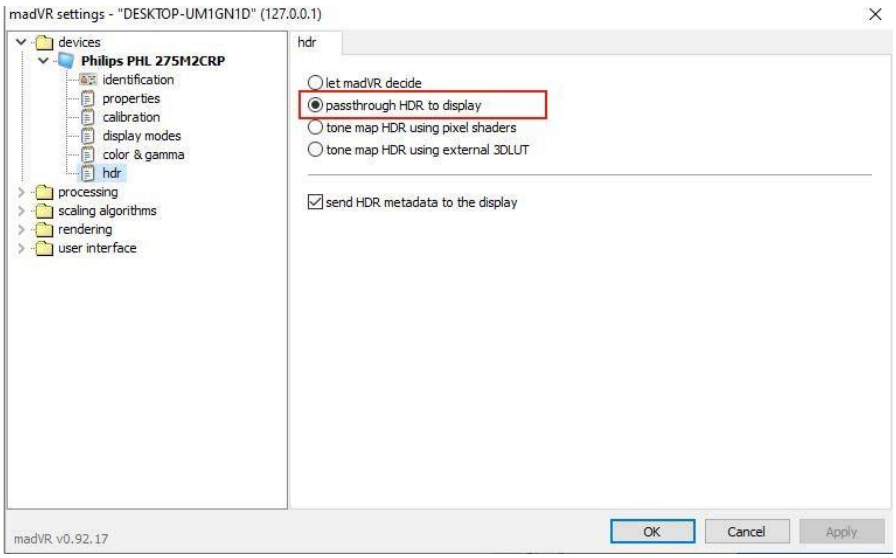
Record HDR video

1. Please confirm whether your video capture device supports 10bit video format output, and computer with NVIDIA graphics card. If not, you cannot get this function.
   Please refer: https://developer.nvidia.com/video-encode-and-decode-gpu-support-matrix-new
2. Make sure your video source supports HDR mode, you can monitor the source video format through ezcap Link software. Please connect the device first and enable the HDR function of the source video device. Then open ezcap Link and open the device settings window in the software.
   When the source video is in HDR format, the button "Enable HDR" will become available. (Please reopen the setting window and refresh the information). Click the "Enable HDR" button, and then click the OK button to enable the HDR function of the device.

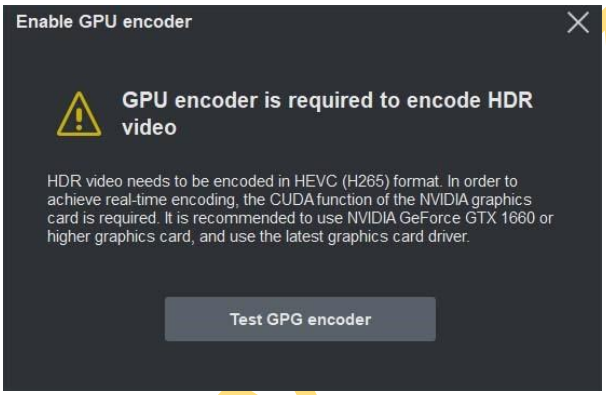


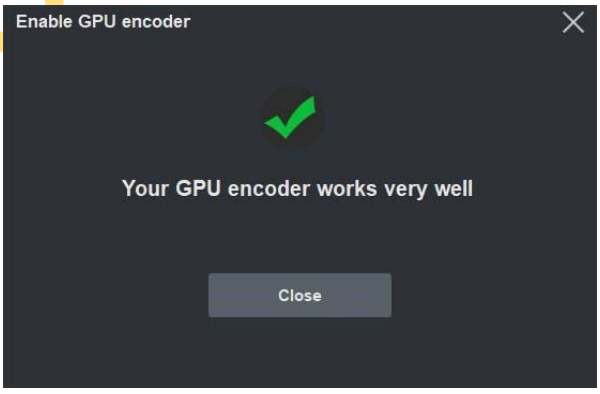
3. If your PC monitor supports HDR, you need to set up for madVR.
   Note: madVR renderer has been installed to your computer when you installed ezcap Link installer.

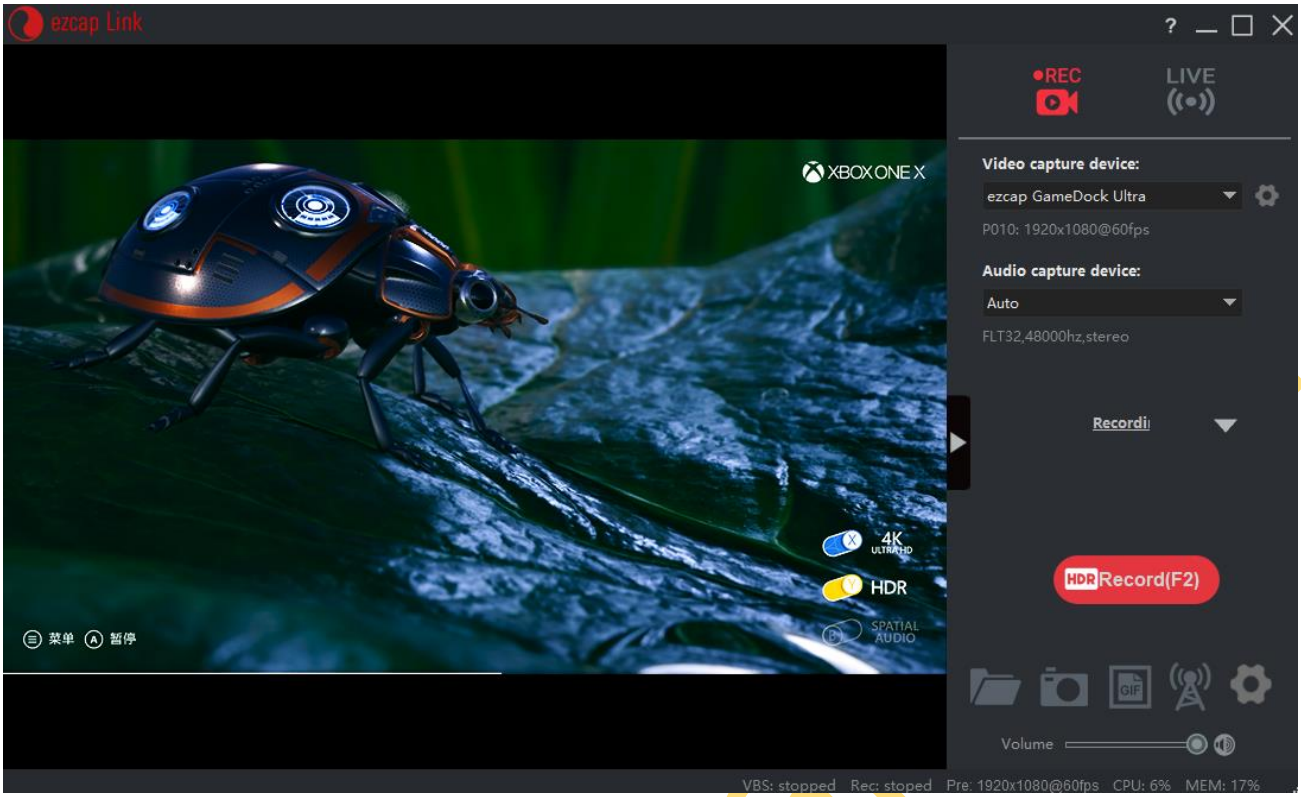




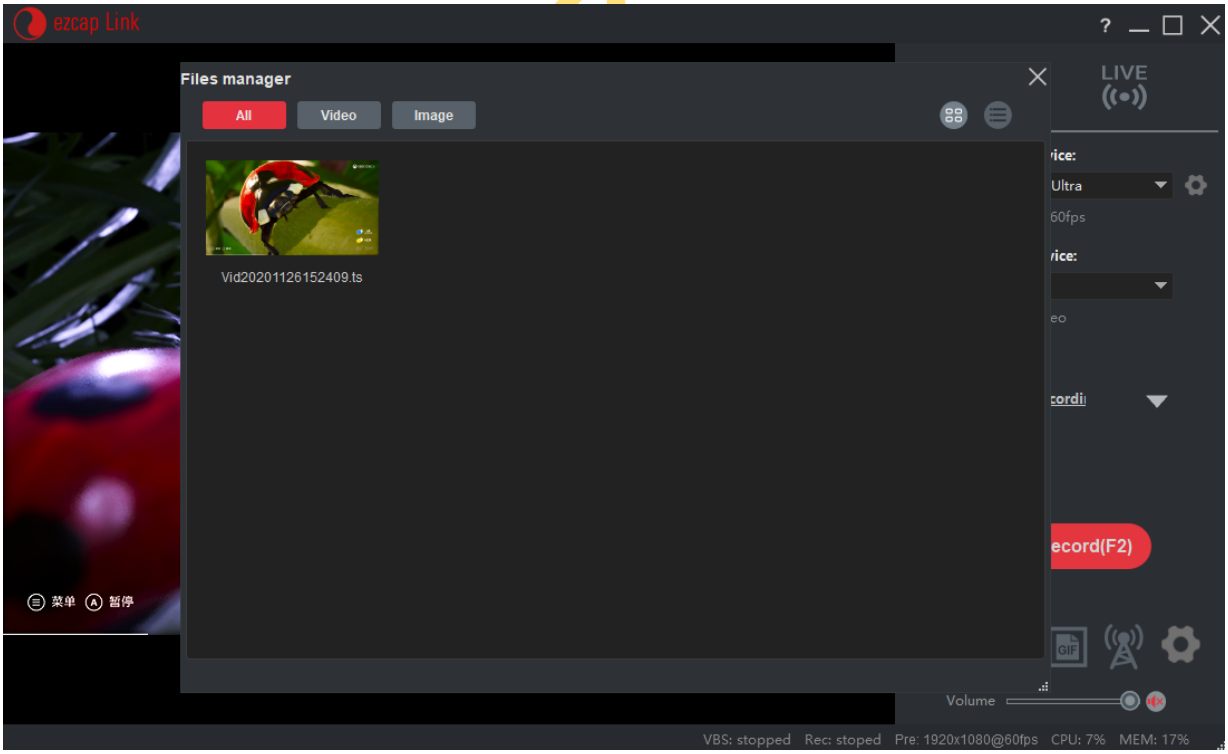
4. When successfully turned on HDR mode, the icon HDR will be displayed on the record button. click the "Record" button to start recording.
   When HDR video recording is performed for the first time, a window to test the GPU encoder will pop up. Since encoding HDR video requires HEVC encoding, only GPU encoders can complete real-time encoding. Currently only supports HEVC encoder of NVIDIA graphics card.
   When the test is completed, it will automatically start recording video.







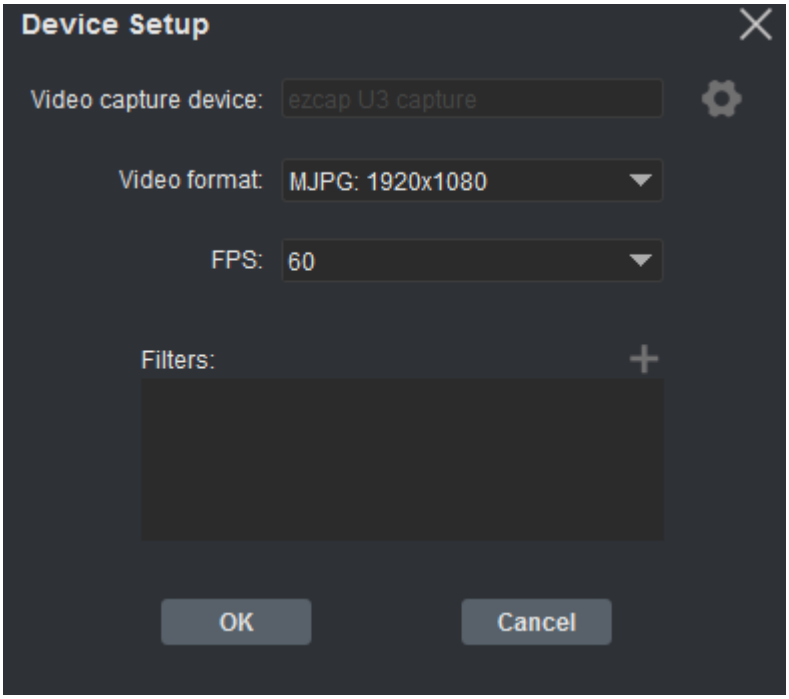
5. Please click  and double click the recorded HDR video file to playback directly. The video format is TS format.



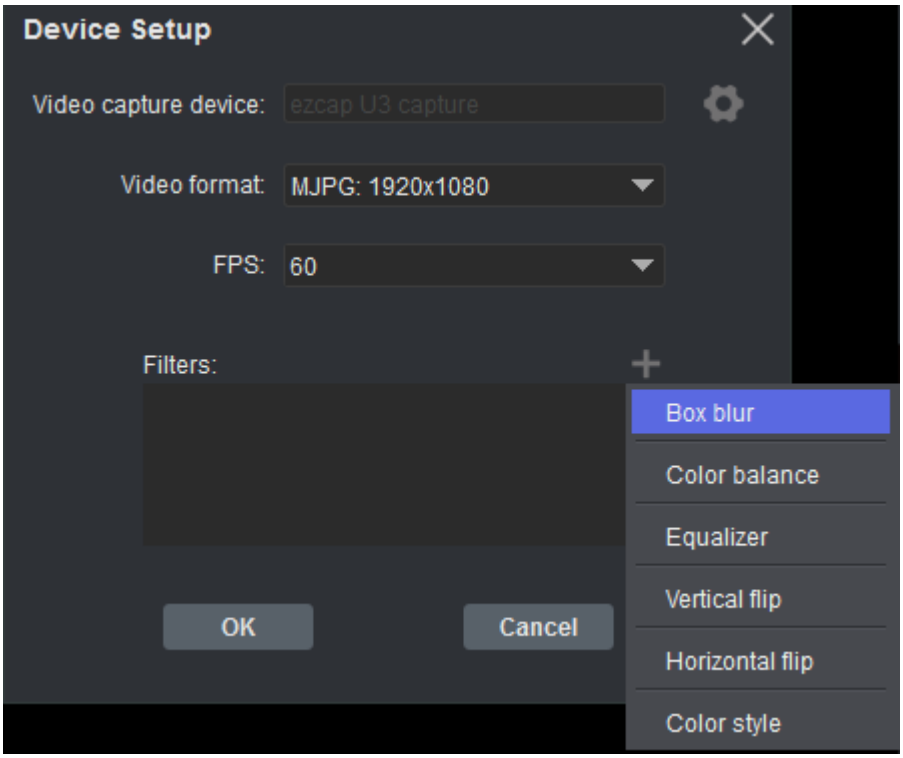
6. **Note:** After entering HDR mode, the Record setting in the setting window will be invalid. Currently only HDR10 is supported. Other formats such as HLG, HDR10+ are not currently supported.

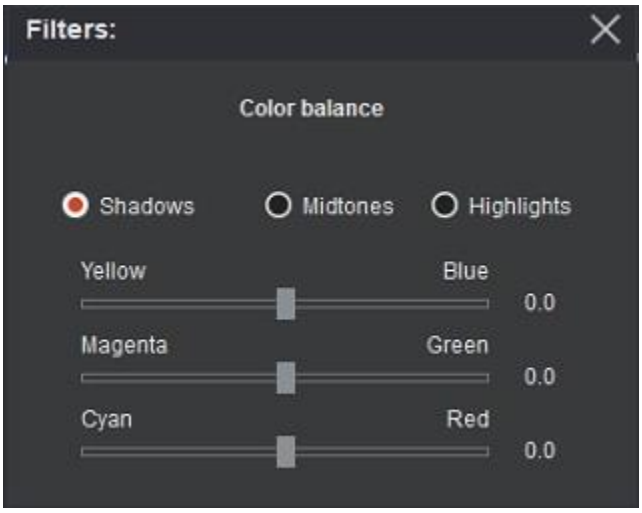
Use video filters

1. Click  to open Device Setup interface.

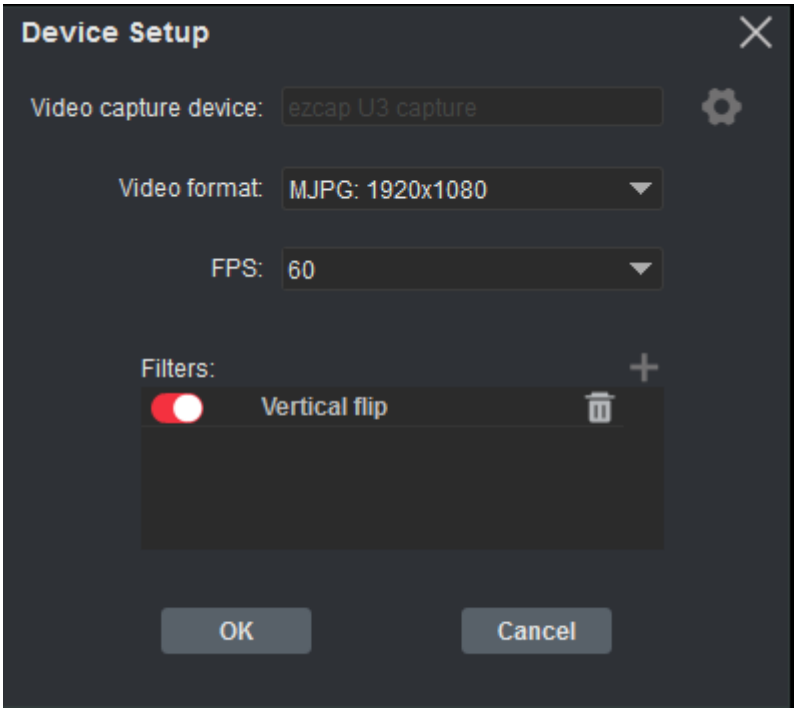


2. Click  to add a filter.
3. Example：add a balance filter.



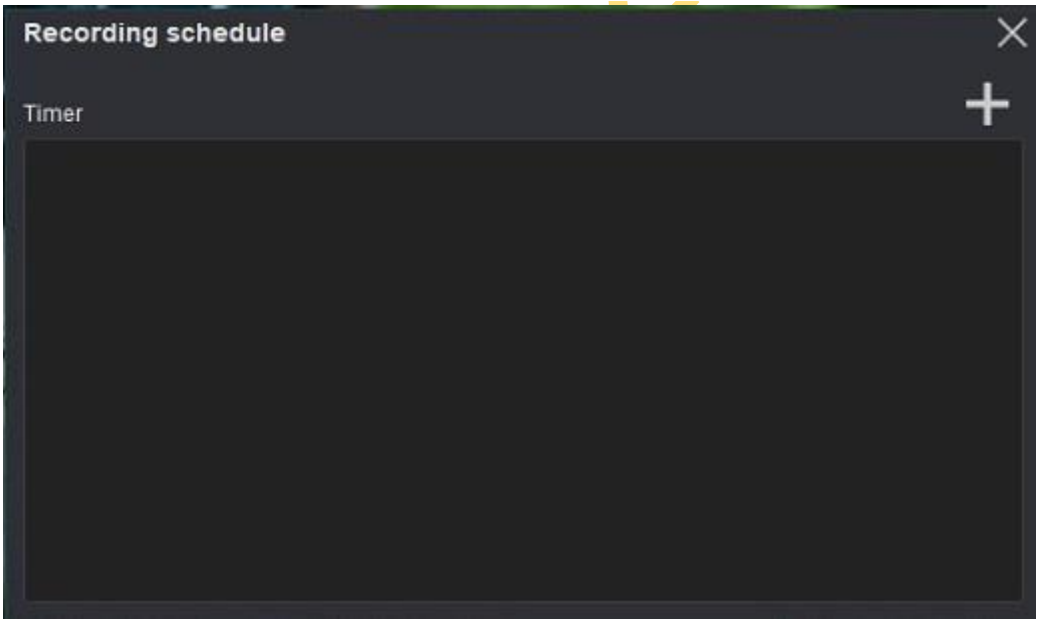


4. Example: add a filter “Vertical flip”.

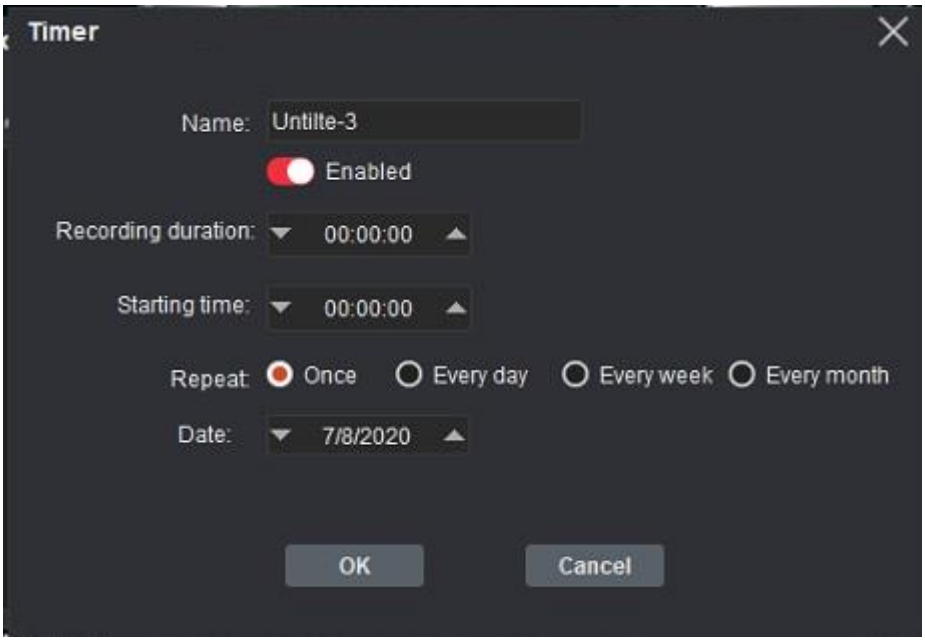


Record schedule

7. Run ezcap Link on your PC.
8. Click Recording schedule to set up recording schedule.

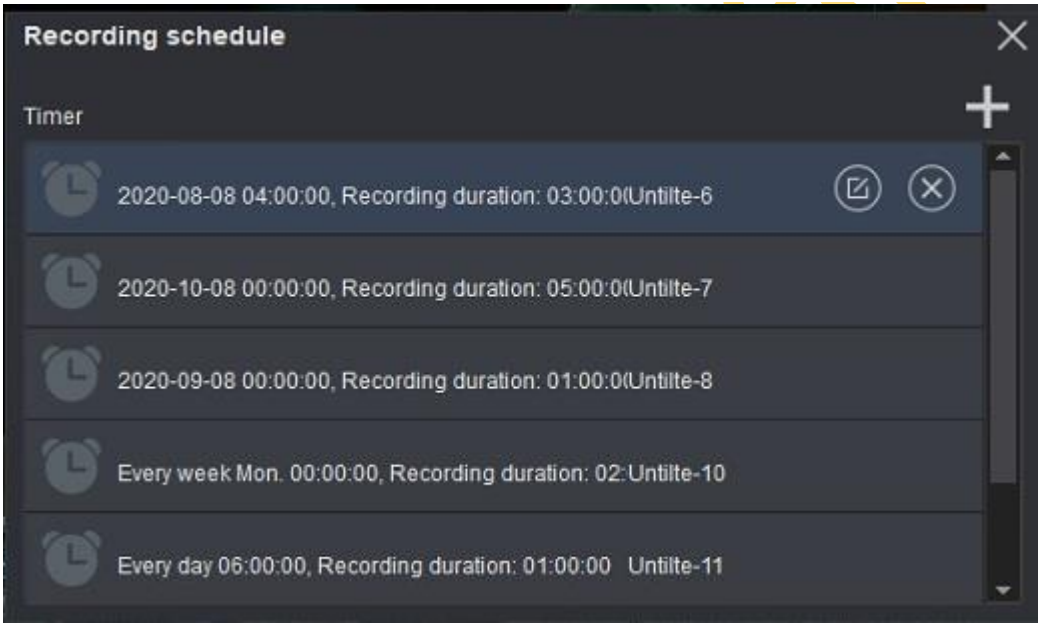


3. Click + to add a recording schedule.
4. You can set the name, duration, starting time of the scheduled task, frequency and also the date of execution as following.



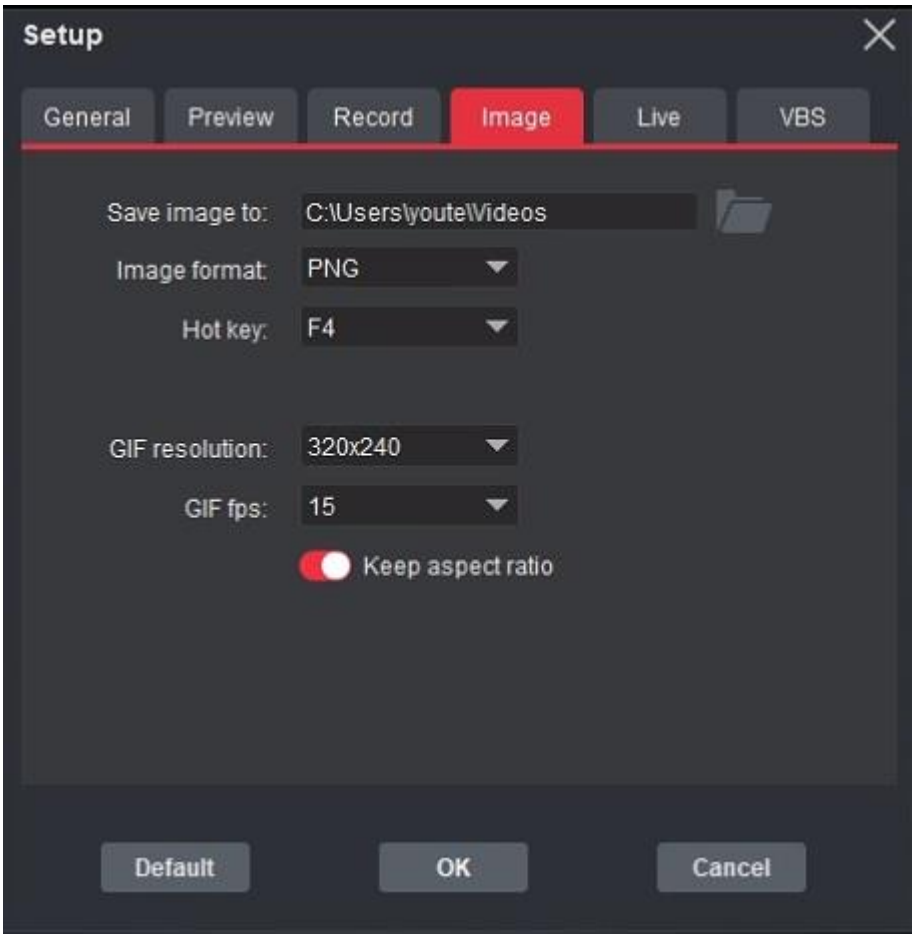
Please be noticed, the starting time has to be at least 1 minute later than the current system time.

5. You can add multiple scheduled recording tasks:

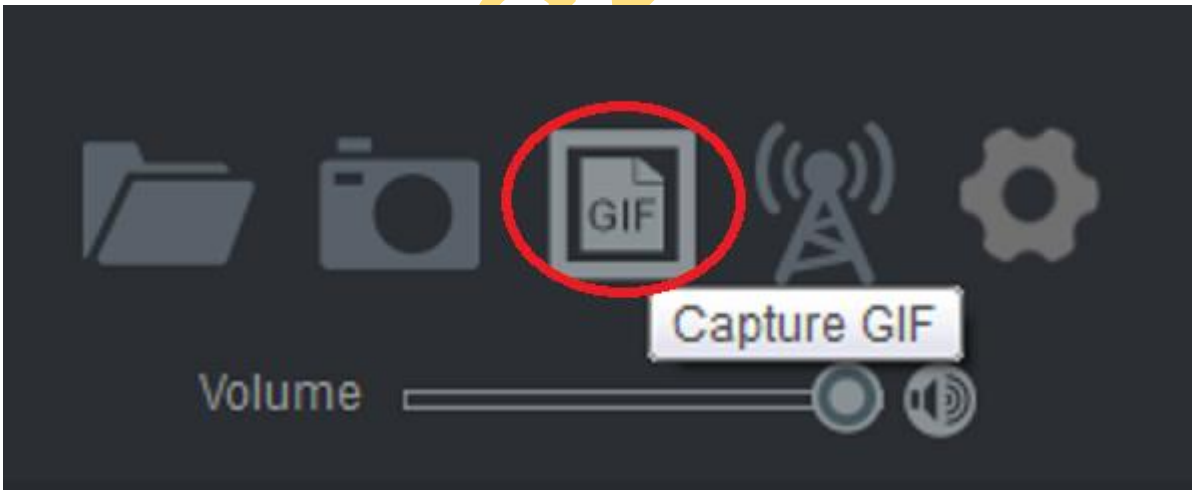


Capture a gif image

1. Please set the Gif resolution and frame rate as following, click “OK” to confirm the modification.



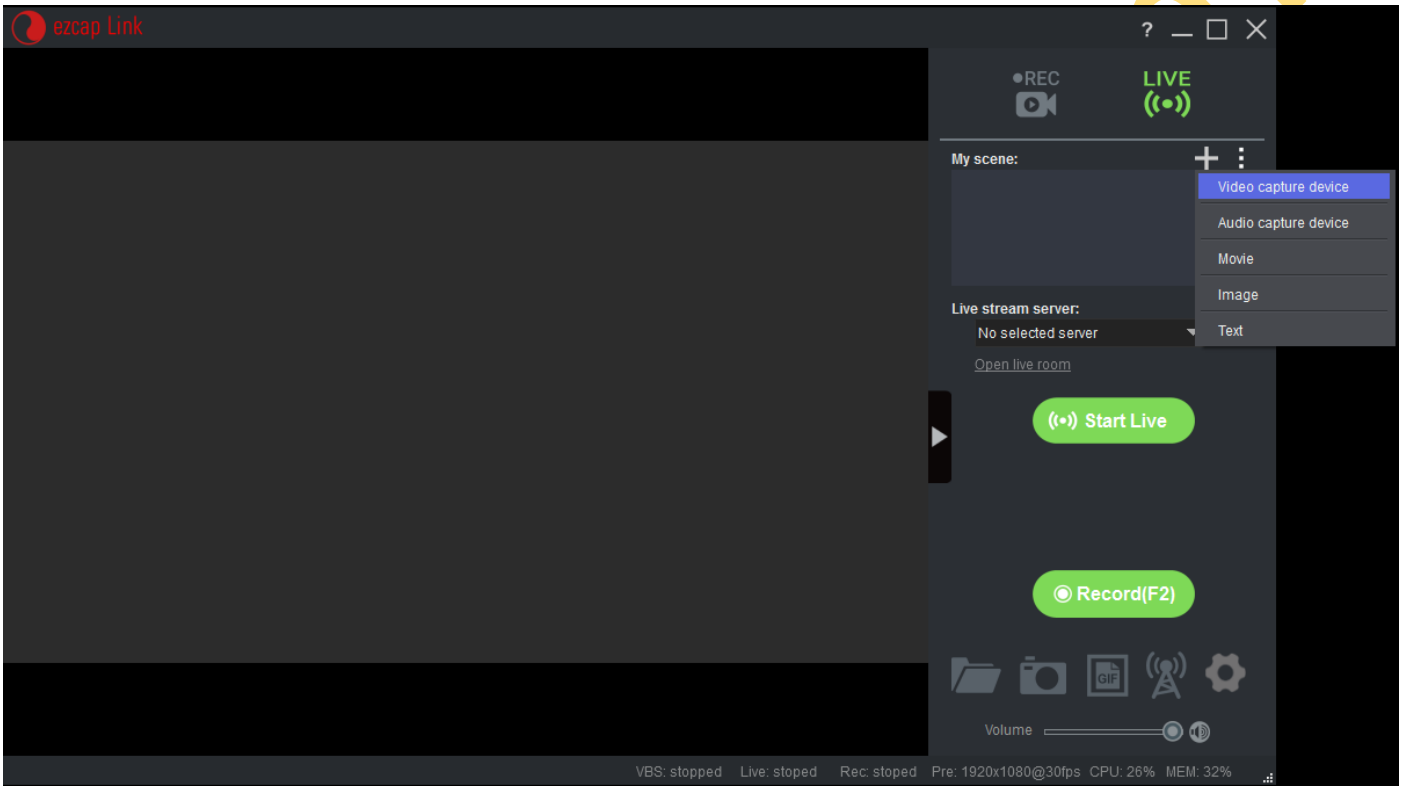
2. On the main screen, please click GIF to capture a gif image



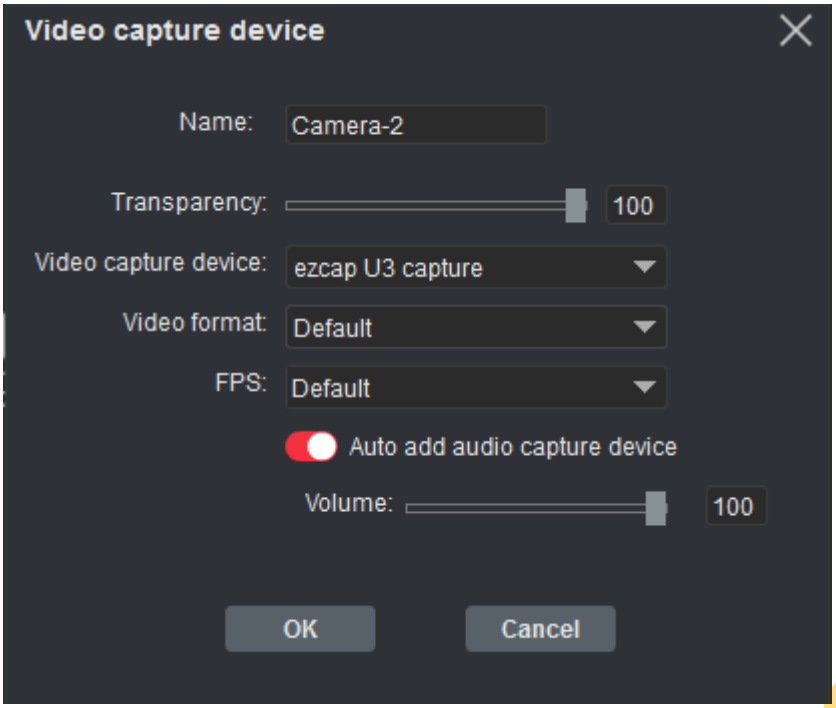
Live Streaming

Add a video capture device

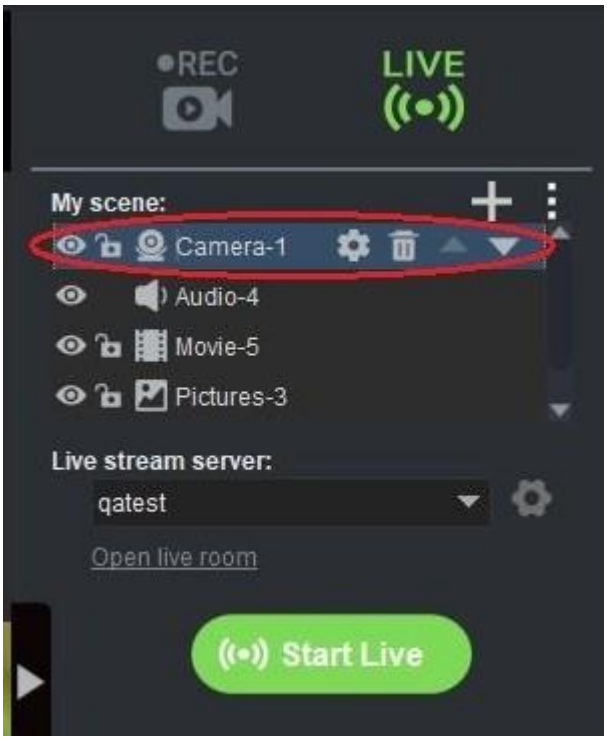
1. Please connect your video capture device to your PC
2. Go to “Live”
3. Click  under “My scene” to add a video capture device. (ezcap Link will detective hardware automatically)



4. You can select video capture device and also set up name, transparency, video format, fps and volume in this window



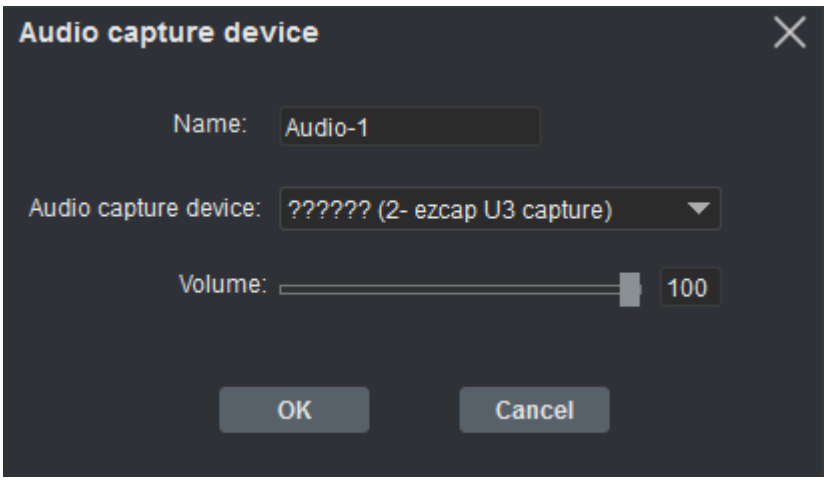
5. Click “OK” to save changes.
6. You can edit video capture device settings here



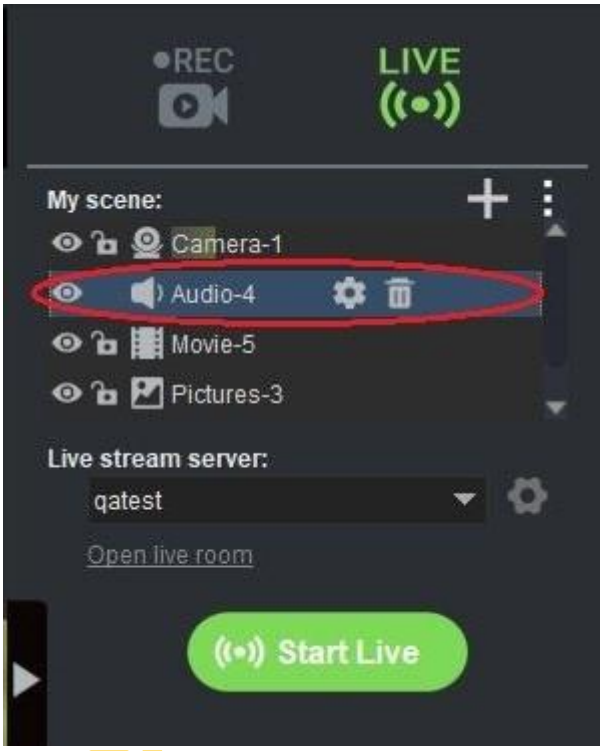
Add an audio capture device

1. Please connect your audio capture device to your PC.
2. Go to “Live”

3. Click  under “My scene” to add an audio capture device.
4. You can select audio capture device and also set up name and audio volume in this window.

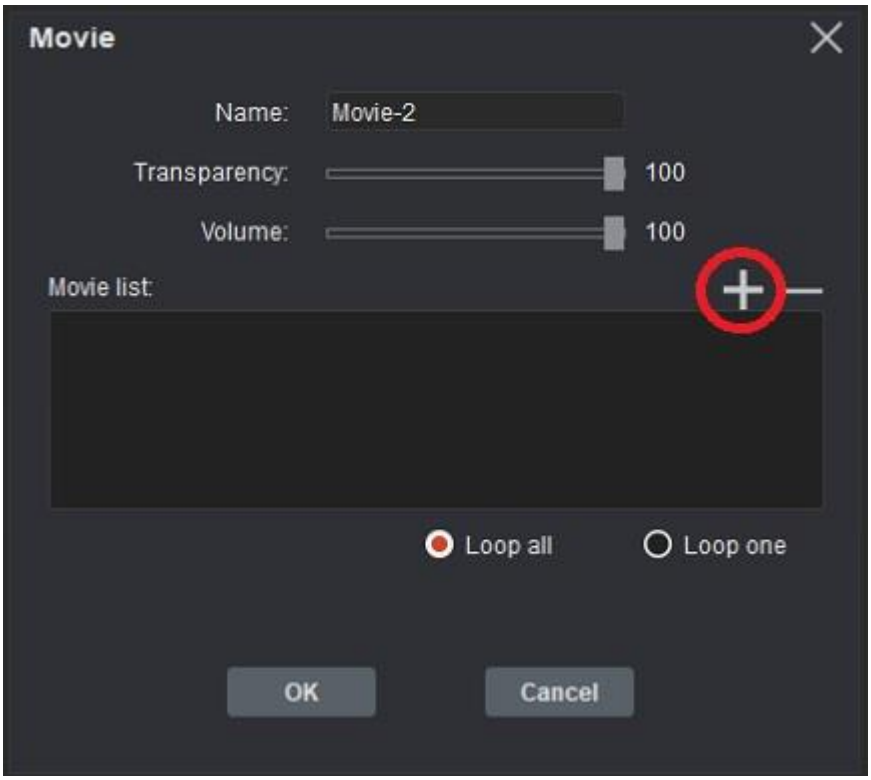


5. Click “OK” to save changes.
6. You can edit audio capture device settings here.

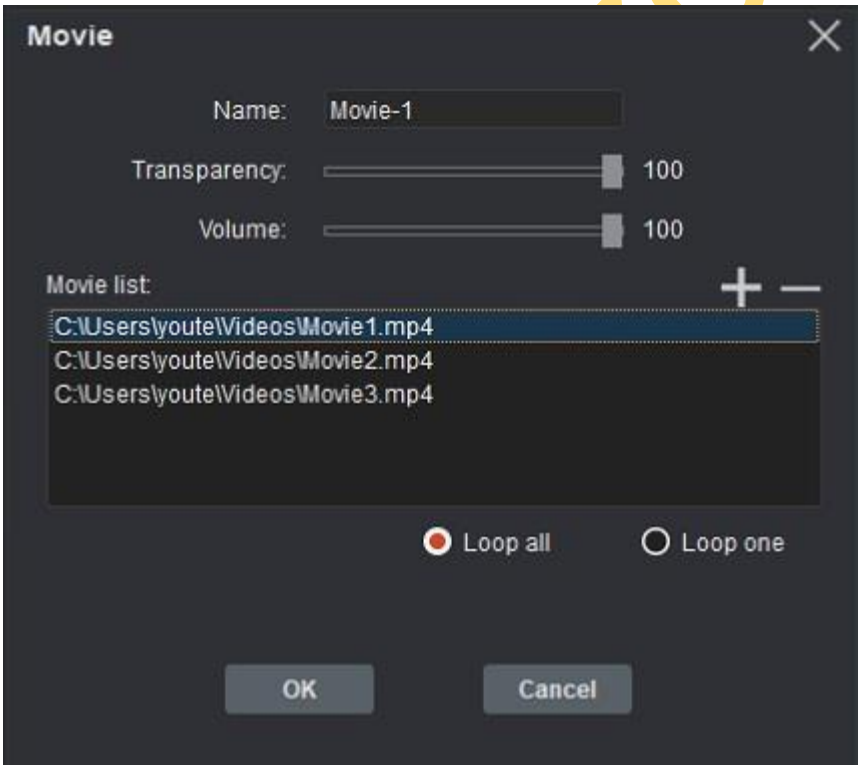


Add a movie

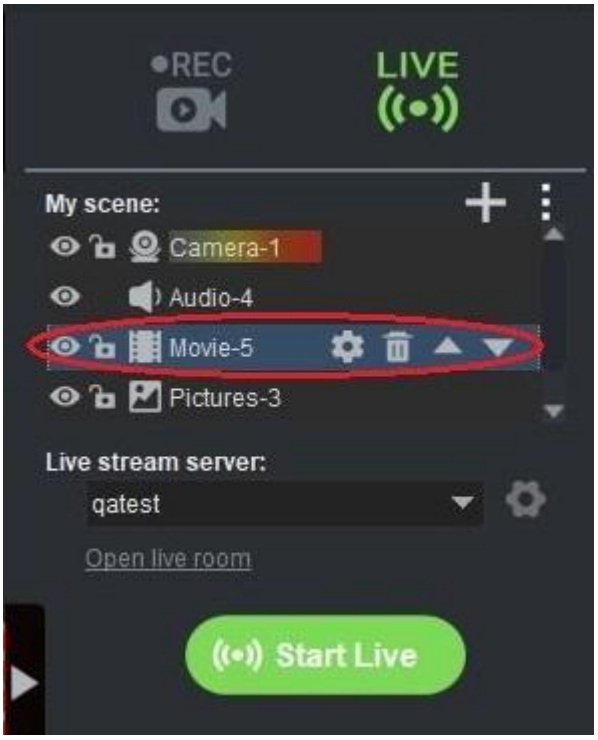
1. Please go to “Live”
2. Click  under “My scene” and select “Movie”
3. Click  under “Movie list” to add a movie



4. It will show all the movies you added and you can set up name, transparency, volume and also choose “loop all” or “loop one”

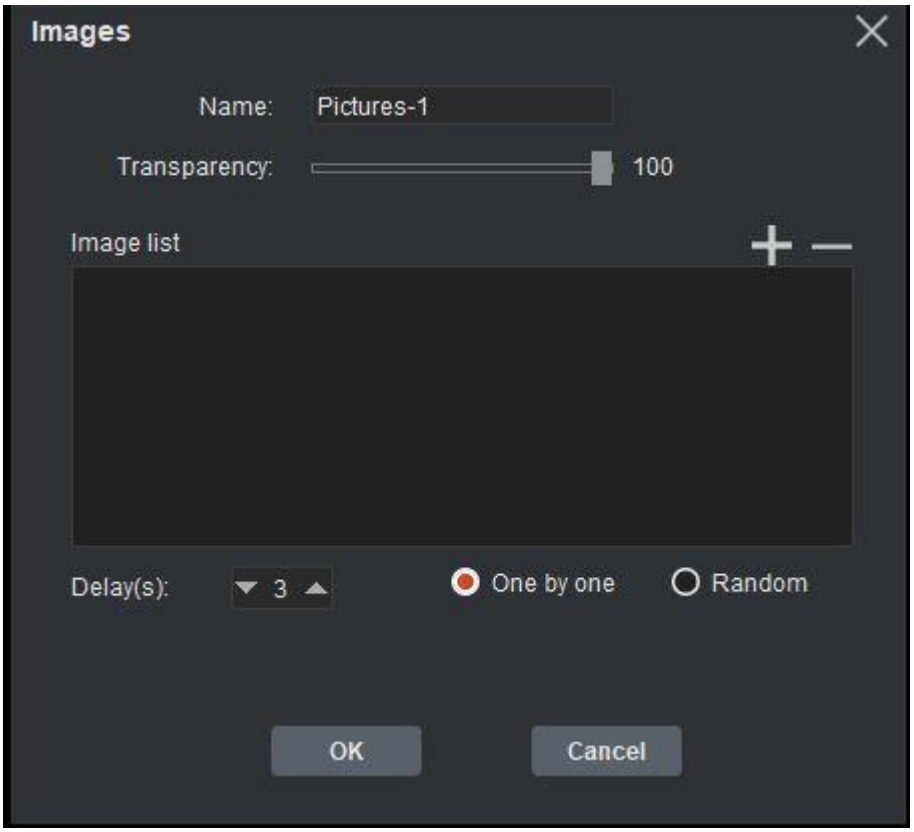


5. Click “OK” to save changes.
6. You can edit movie settings here

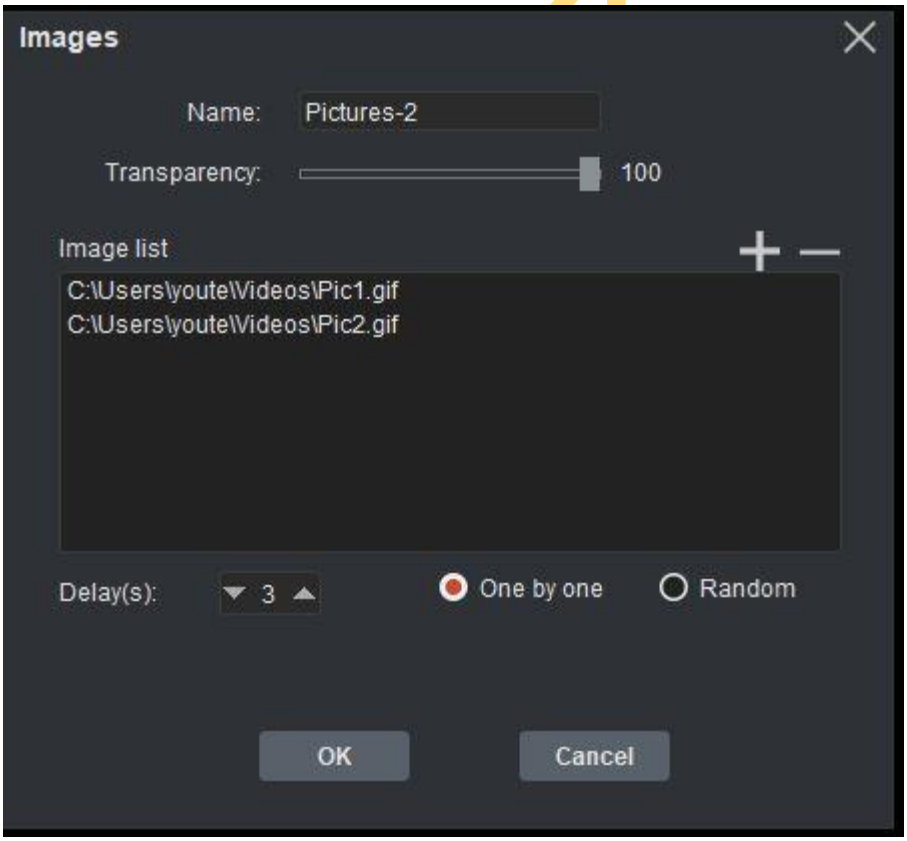


Add a picture

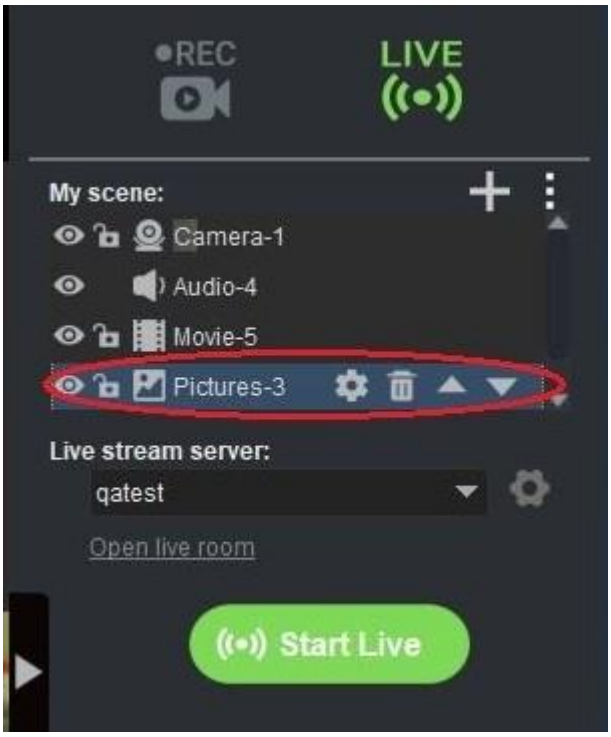
1. Please go to “Live”
2. Click + under “My scene” and select “Image”
3. Click + under “Image list” to add an image



4. It will show all the images you added and you can set up name, transparency, delay numbers and also choose display methods as “One by one” or “random”

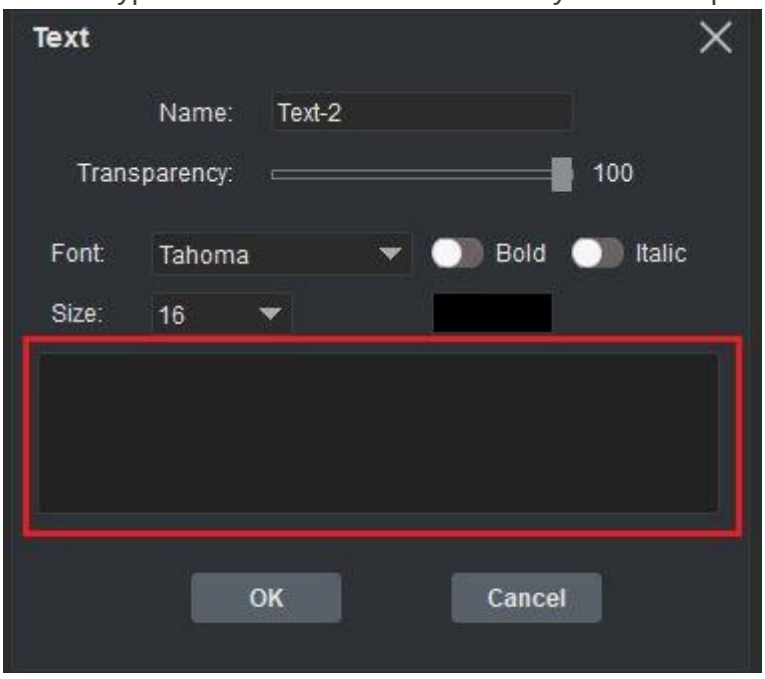


5. Click “OK” to save changes.
6. You can edit image settings here

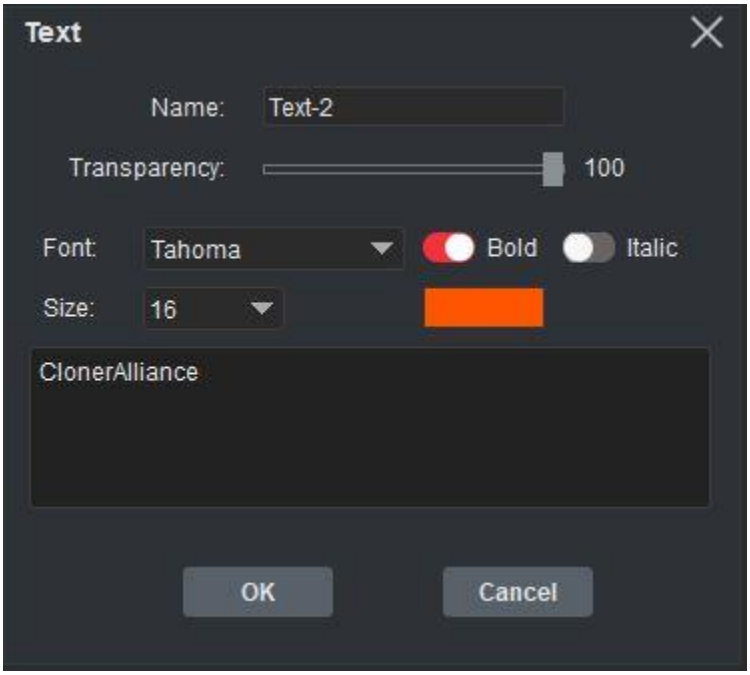


Add a text

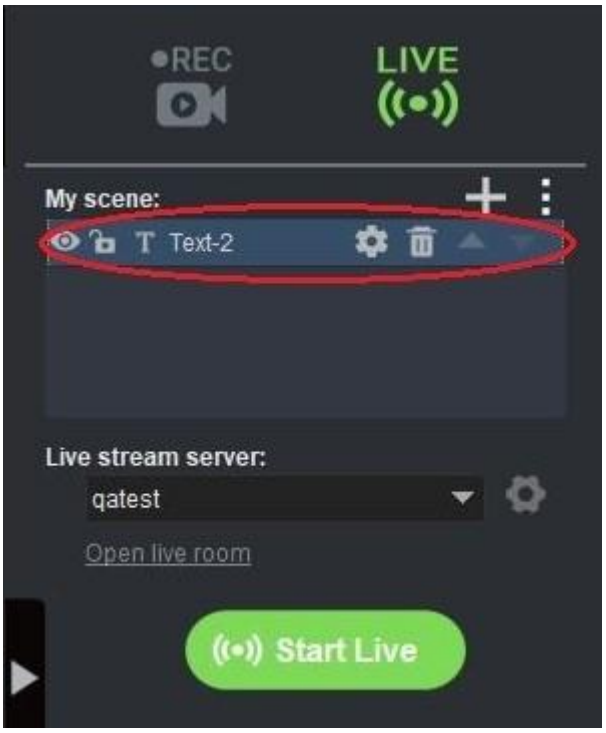
1. Please go to “Live”.
2. Click  under “My scene” and select “Text”.
3. Type characters in this area which you want to present.



4. You can modify the name, transparency, font, size, bold, Italic and color as you prefer.

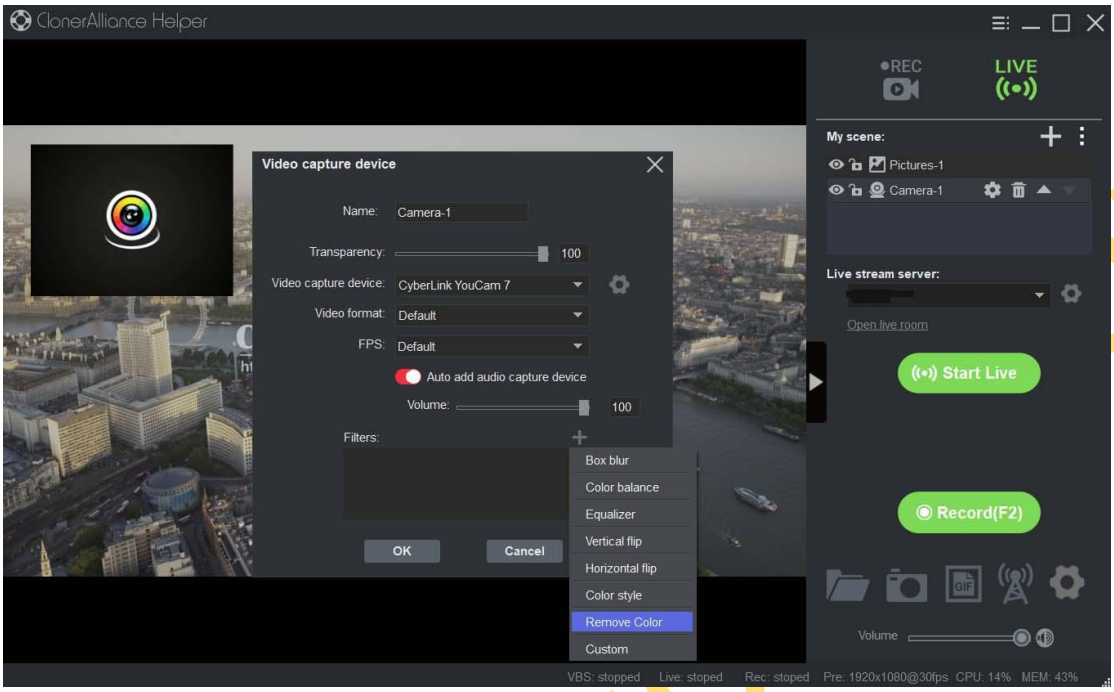


5. Click “OK” to save changes.
6. You can edit text settings here.

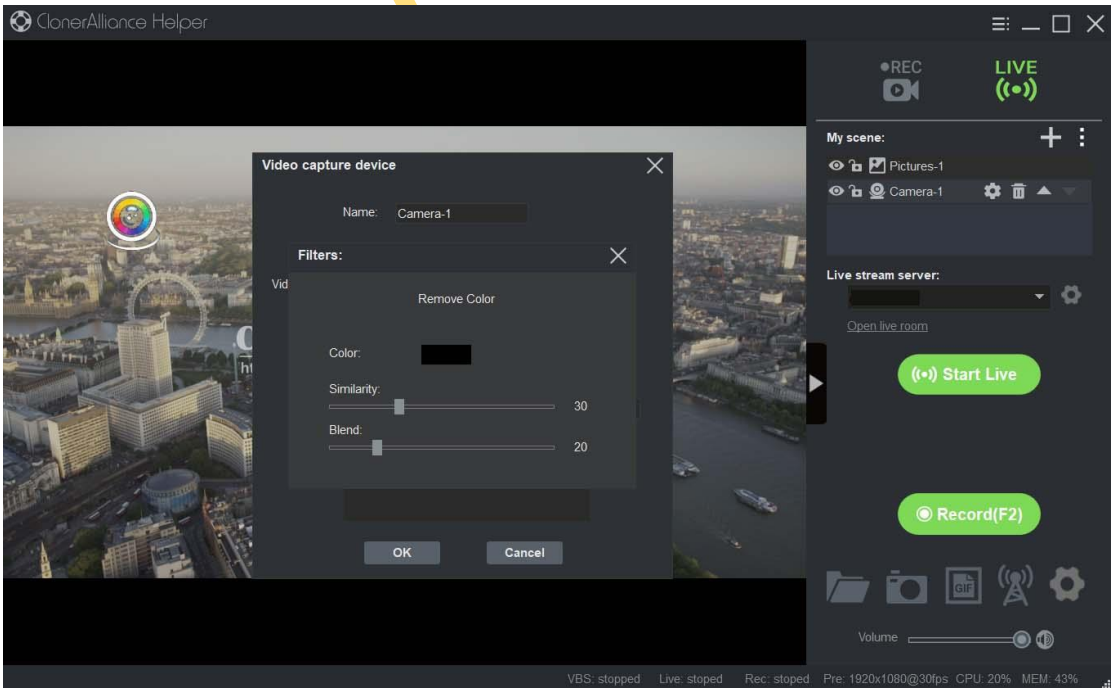


Set background of camera transparent

1. Please go to “LIVE”, add a camera device in your living sense. Please click  next to the camera, and add a filter – “Remove Color”.

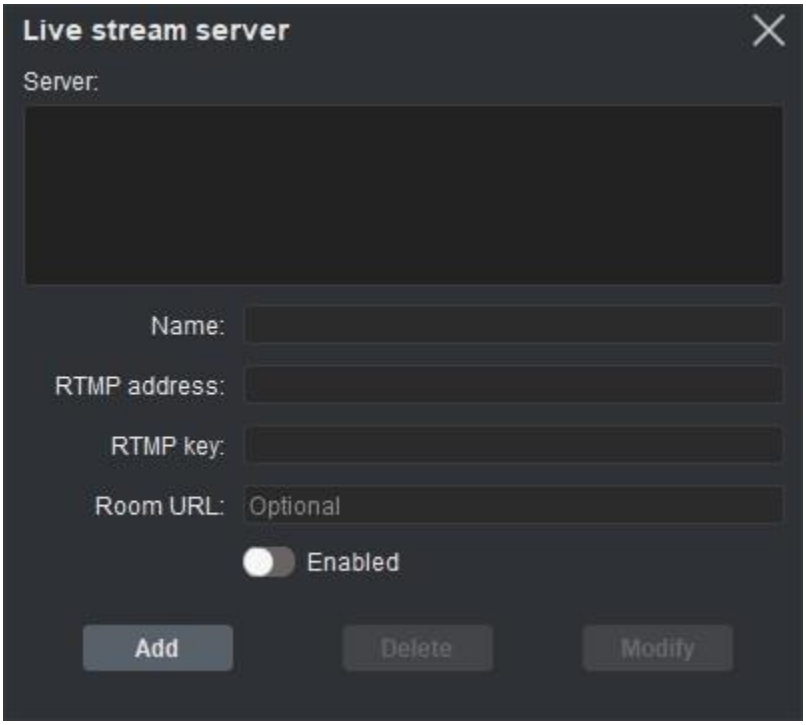


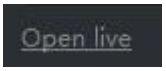
2. Then select the color that you want set to transparent, eg: black color. It should be same or similar as your camera background. And you will make the background of camera transparent.
Note: You cannot get the best effect if the background is white or black. The best background is green or blue, they will make you get the best effect.

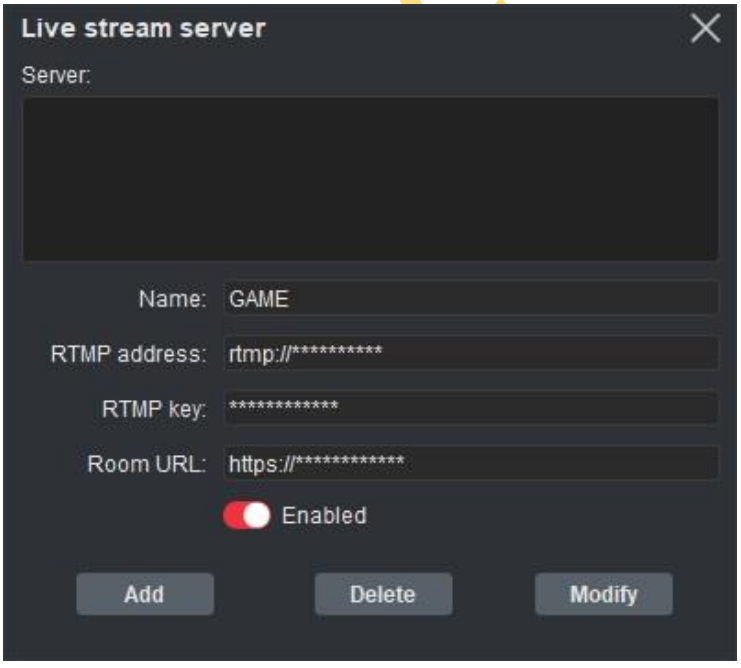


Manage RTMP servers

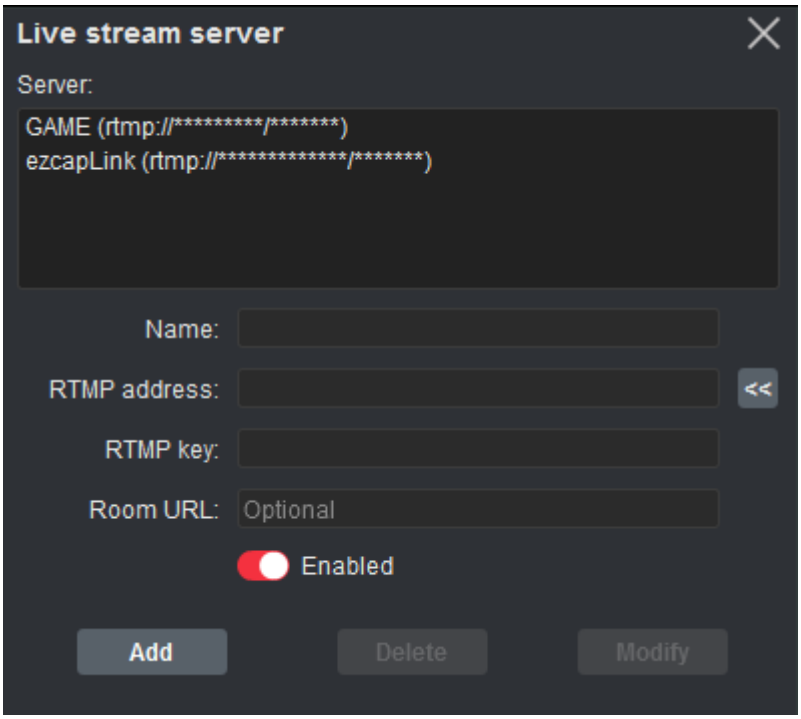
1. Please go to “Live”
2. Click  to set up RTMP server



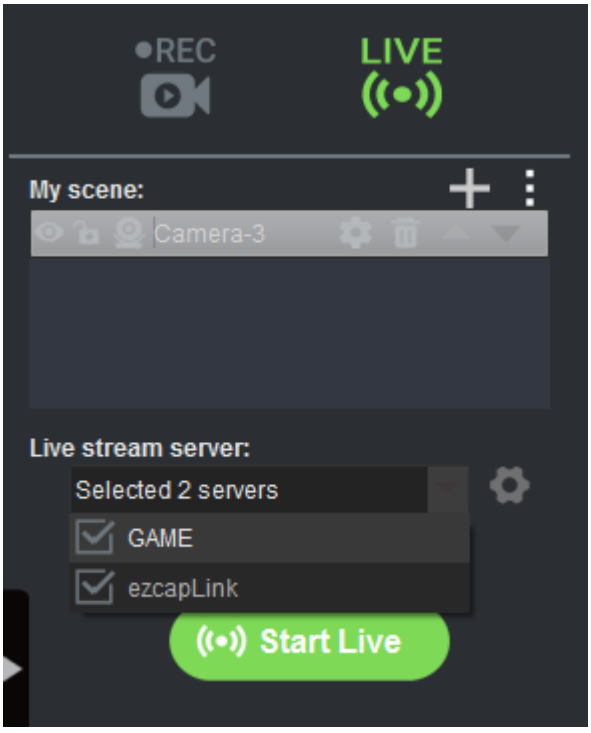
3. Please fill in Name, RTMP address and RTMP key which are necessary. Room URL is optional, if you want to open live room directly by clicking  in the side bar, it is recommended to fill in the Room URL



4. You can add multiple live stream servers as you need



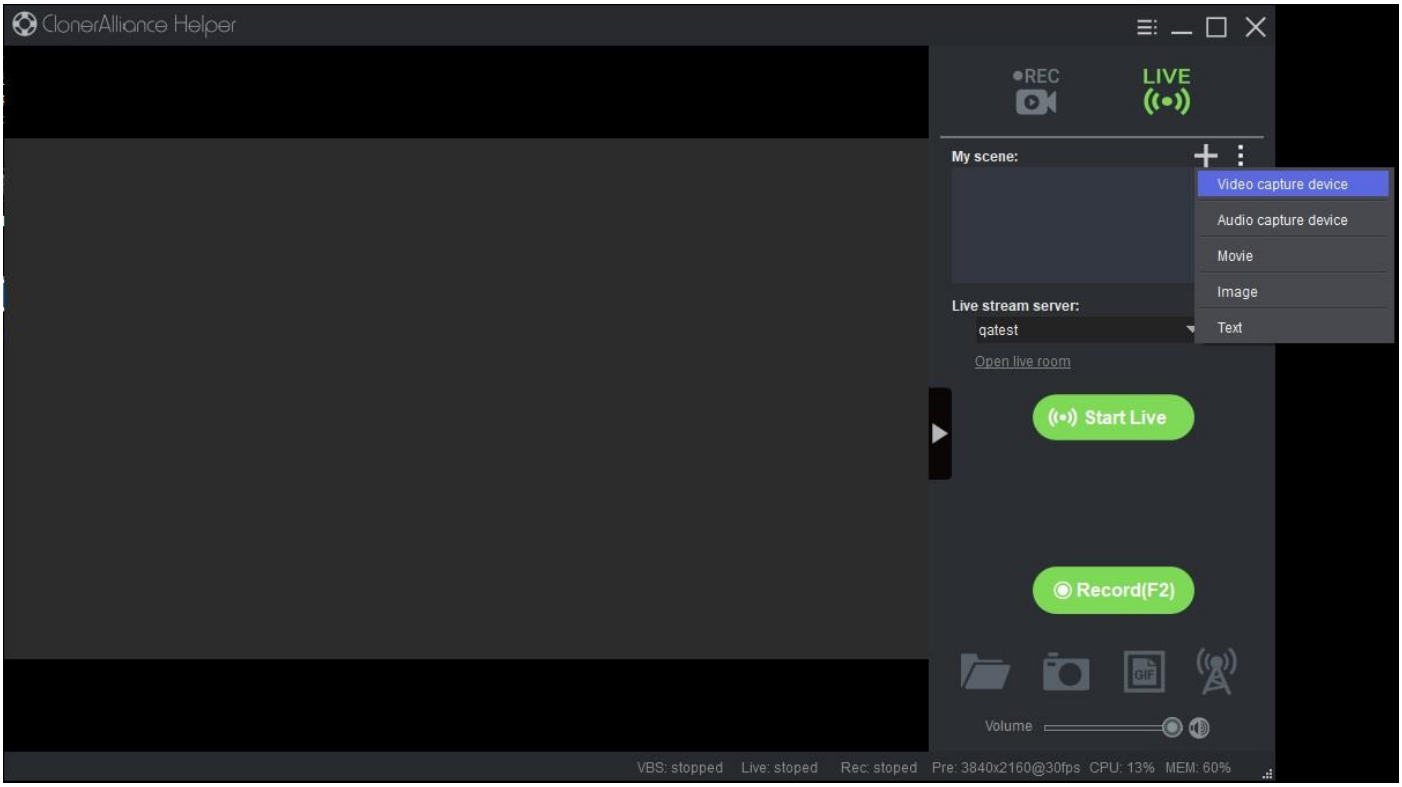
5. All the live stream servers you added will be displayed in “Live stream server” in side bar, you can choose from here



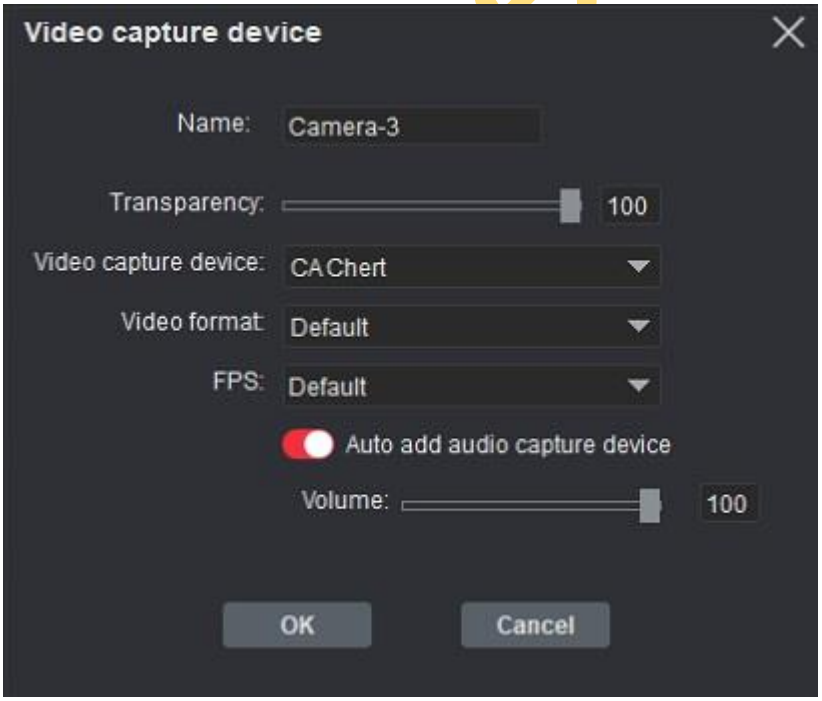
Start live streaming

1. Please connect your video capture device to your PC

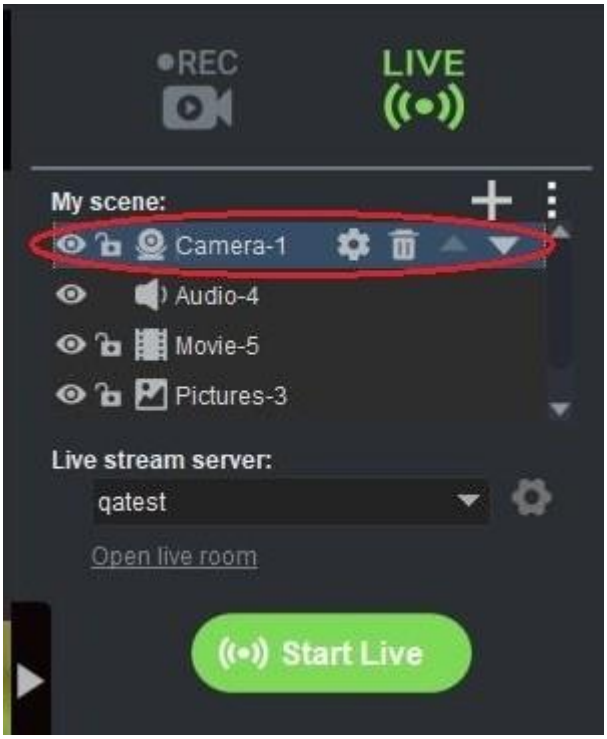
2. Go to “Live”
3. Click  under “My scene” to add a video capture device. (ezcap Link will detective hardware automatically)



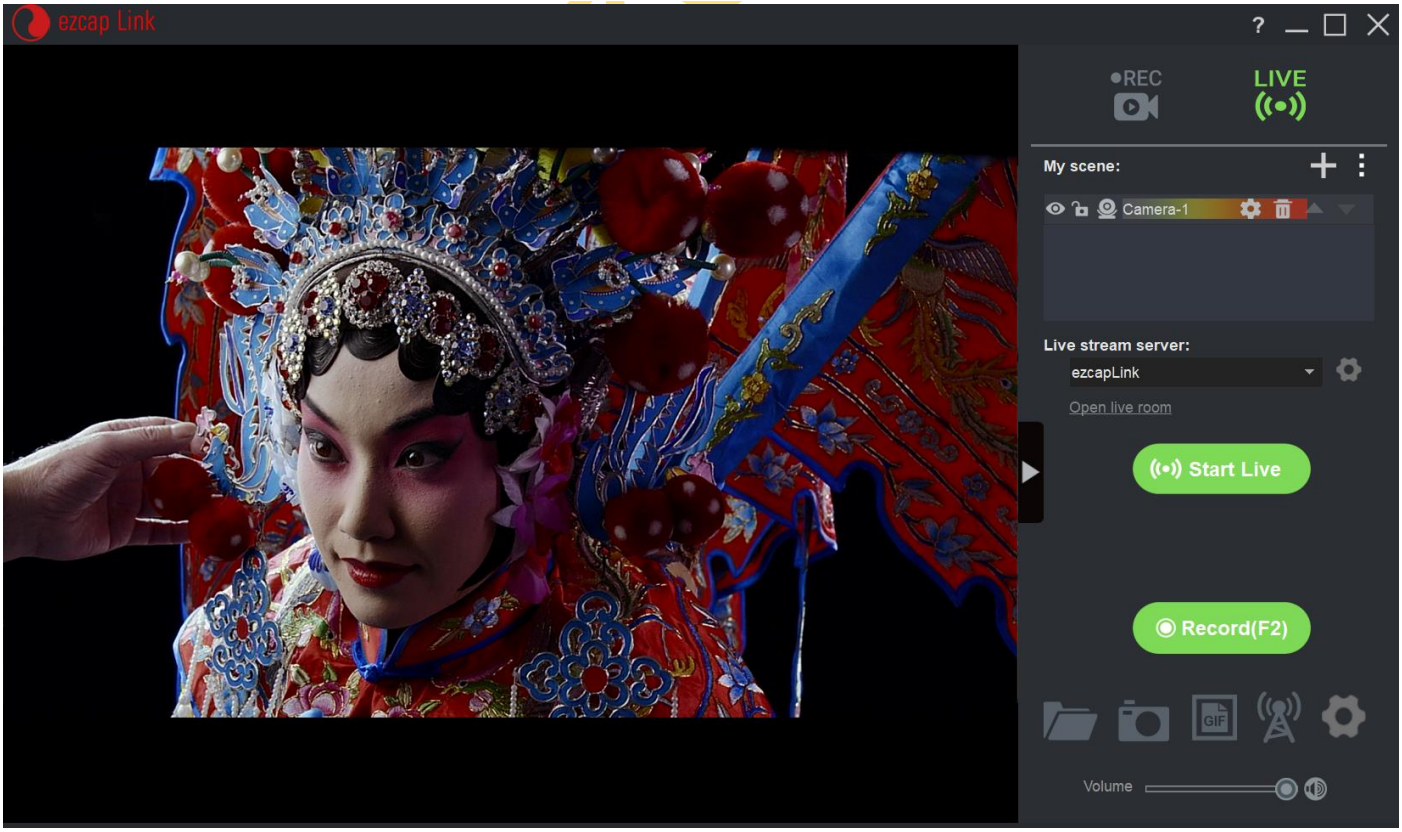
4. You can select video capture device and also set up name, transparency, video format, fps and volume in this window



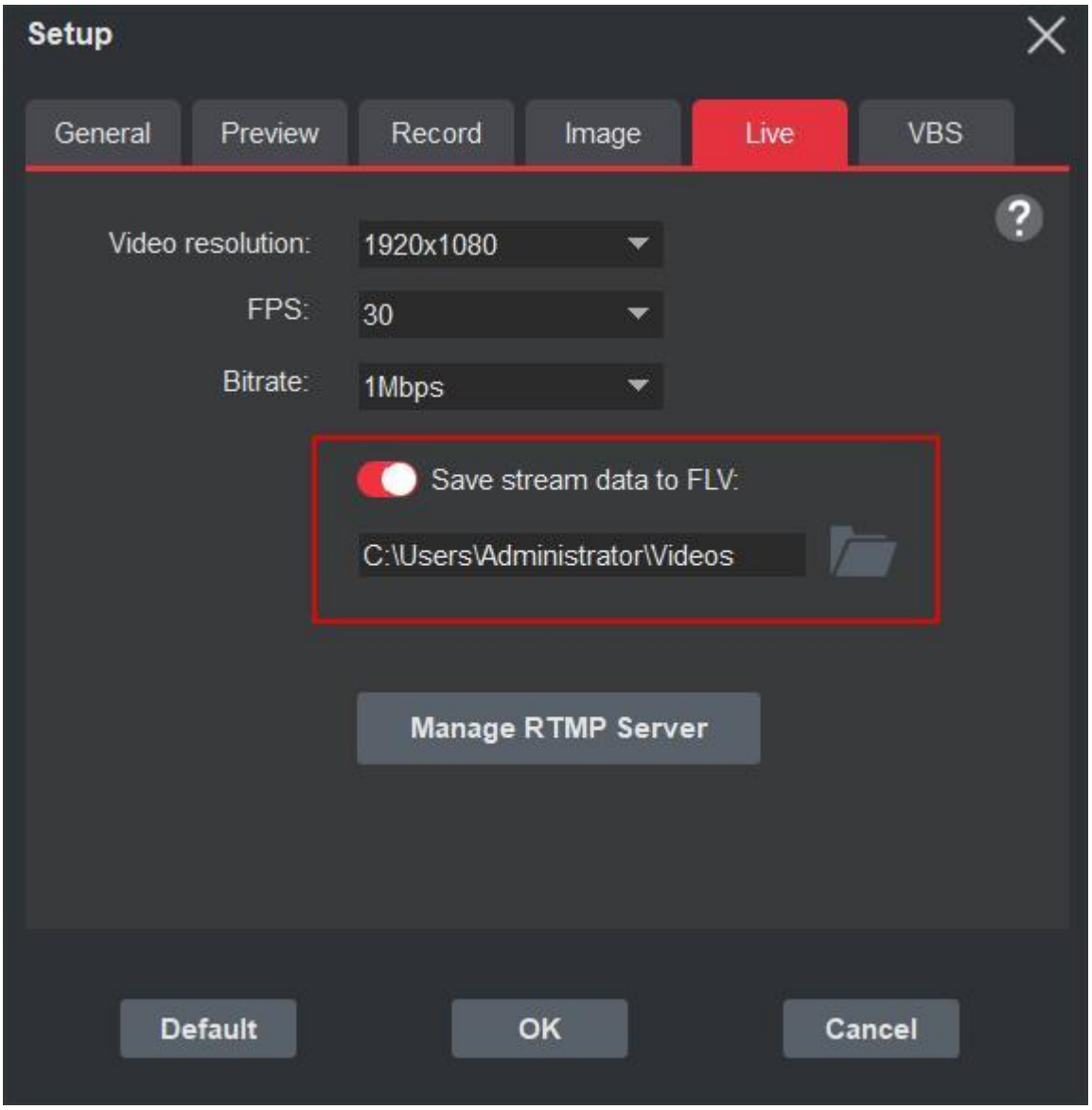
5. Click “OK” to save changes.
6. You can edit video capture device settings here



7. Config the RTMP server and check the check box of the server which you want to live.
8. Please click “Start Live” to start live streaming



Note: When the live broadcast starts, do not click the “Start Record” button to record the live video stream, the FLV format video files will be automatically stored locally during the live broadcast. please make sure FLV item is checked.



VBS

What's VBS?

Video Broadcast Share (VBS) is an http web server. It can help you to play back captured videos on the sm art phone or PC web browser.
It can realize LAN video on demand and camera live broadcast. Users can view recorded MP4 files through the web browser, and can also view the camera content remotely.

Please note that VBS can only work through a local area network.

Please note that turning on the camera to live broadcast will consume a lot of system resources and may re sult in increased CPU usage.

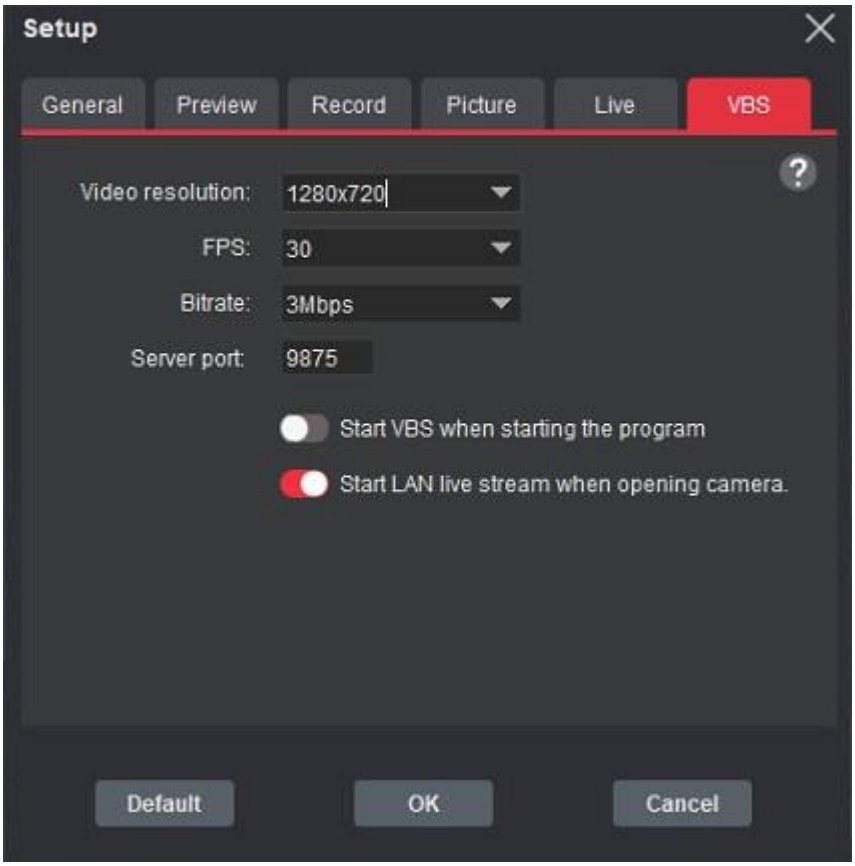
How to use VBS?

Start VBS Server

1. Please go to Setup-VBS settings to modify Video resolution, FPS, Bitrate and Server port.

"Start VBS when starting the program" will enable VBS when program is starting.

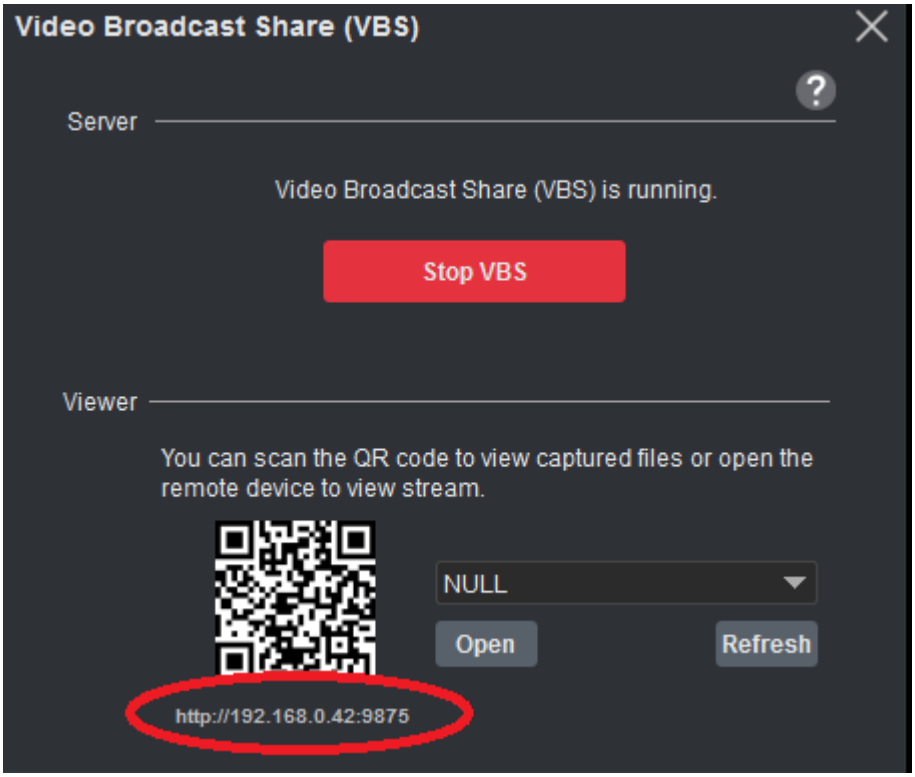
"Start LAN live stream when opening the camera": When the camera is opened, it will automatically start the LAN video live broadcast (requires CPU resources, and keeps off when not in use).



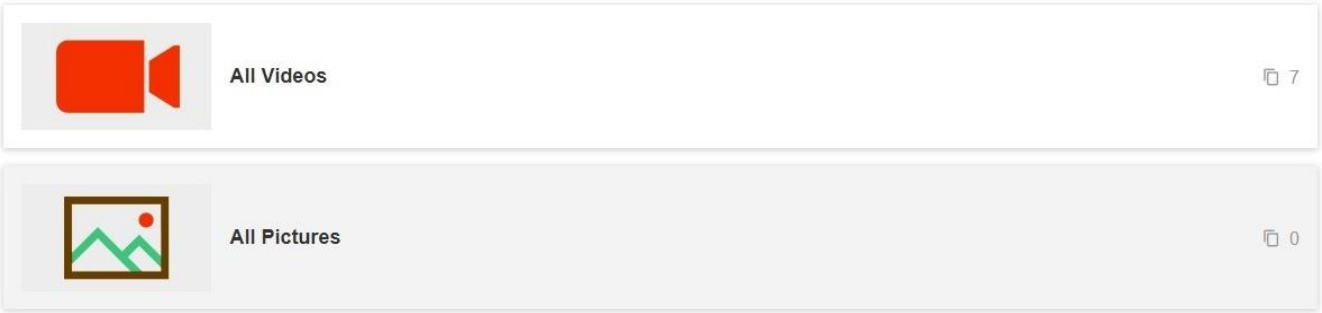
2. Click  to enter VBS window.
3. Click “Start VBS” to start VBS.

Connect to VBS Server

1. Install ezcap Link on another computer or multiple computers in the LAN.
2. Start the software, click  to enter VBS window.
3. The software will automatically find the VBS server, if it prompts “No found any VBS Servers”, you can click Refresh to search again.
4. When the server is found, the QR code of the server address and the video device being broadcast will be displayed.



5. Please scan the QR code or click the website under QR code to playback captured videos



6. Click the “Play” button to watch the live video (you need to install the VLC program first)

ezcap Link Virtual Camera

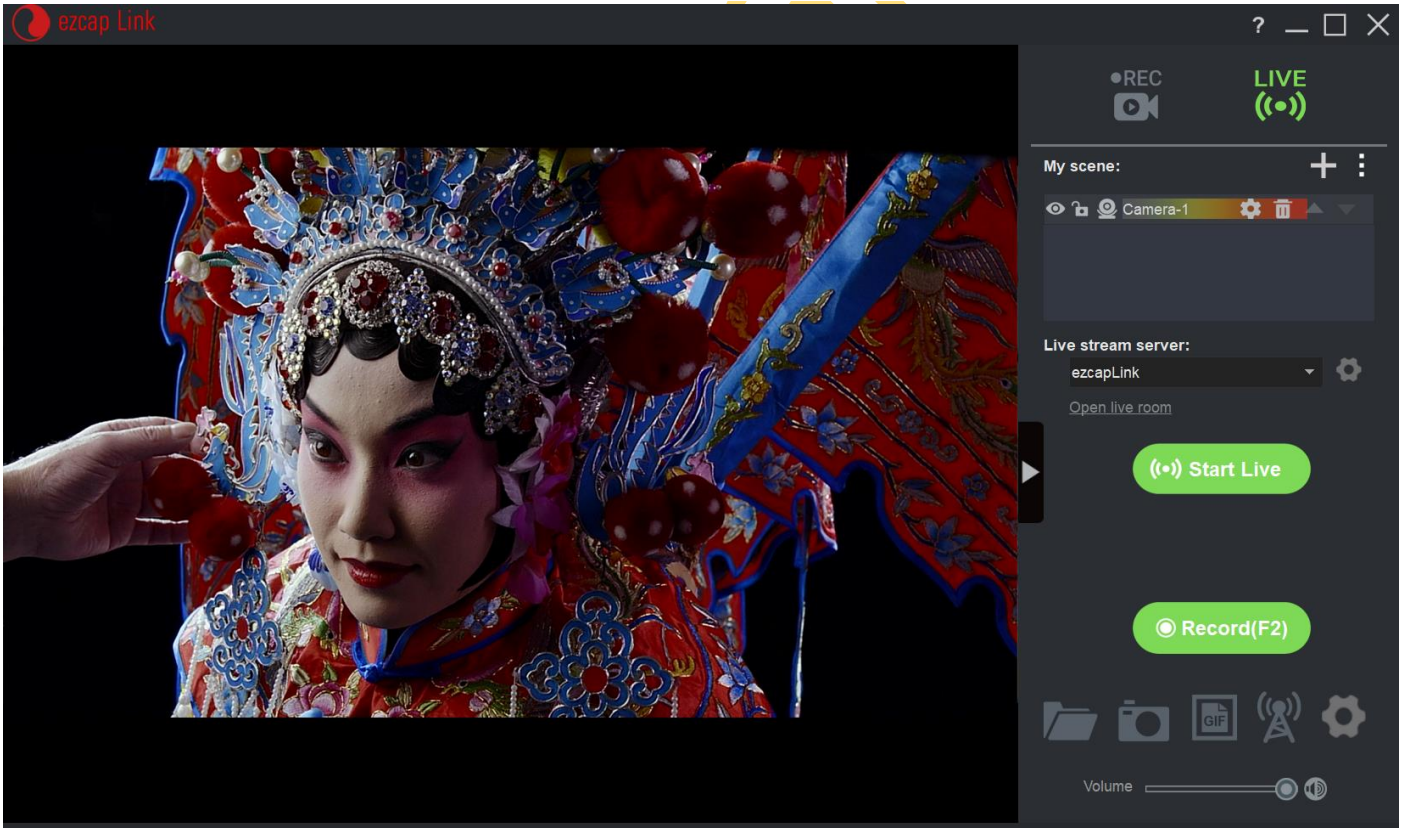
What's ezap Link virtual camera?

ezcap Link virtual camera is a smart virtual camera program, which has the following functions:

- Capable of converting any physical camera into a virtual camera, with fixed 1080p@30fps output.
- Supports two video formats: YUYV and RGB24.
- Supports audio output, and the format is 48KHZ, S16.
- Allows multiple applications to open the camera at the same time.
- The video image can be edited, such as flip, brightness adjustment, etc.
- Supports Windows 7 32-bit, 64-bit and above OS.

How to use ezcap Link virtual camera?

1. Run ezcap Link. Open a physical camera under the "Record" interface and make sure the preview screen is working normally. Or add a video capture device under the "Live" interface and make sure the preview screen is working normally. It is recommended to modify the device settings to the highest resolution so that the virtual camera can achieve the highest image quality.



2. Open the camera in the 3rd party application, which is called "ezcap Link Virtual Camera".

Notes:

1. If appears you about “The server program is not running, please launch the program ezcap Link …” when the camera is launched in the 3rd party program, it indicates that the main program ezcap Link has not been started. Please start it first.
2. The Windows App does not support the virtual camera program. You need to install the corresponding Windows program to use the virtual camera normally.
3. Some software programs will prohibit the use of virtual cameras for security reasons, and virtual cameras cannot be used in these programs.
4. If you’ve installed ezcap Link 32-bit, but the third-party program is 64-bit, then the third-party program will be unable to find the virtual camera. So you need to install the same system version of ezcap Link and third-party program.