

CamFi Matrix

User Guide

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Overview

CamFi Matrix is a multi-camera control system that can simultaneously connect multiple cameras with multiple CamFi' s to take pictures and transmit the photographs to the computer. It can also operate a single camera to live view, adjust camera parameters, and so on.

CamFi Matrix also includes a tool named CamFi Matrix Time to build Bullet Time effect videos. When multiple cameras are triggered, the photos will be transmitted to a server automatically and built to a video.

Supported Network

Ethernet network

It is highly recommended to use the Ethernet network if there are more than 20 cameras.



Wifi network



Hardware preparation

- CamFi (same count as cameras)
- DSLR cameras
- PC or laptop (Windows 7 X64 above, high performance PC is better)
- Gigabyte Ethernet switch or a wireless router
- Wired Shutter Release (Optional)

Network Setup

Ethernet network

1. Download and install the CamFi windows app and CamFi Matrix on a Windows PC via <http://cam-fi.com/en/download.html>
2. Connect CamFi to the PC with an Ethernet cable, then run the CamFi windows app to upgrade the firmware.
3. After the reboot, set up the static IP of CamFi by Settings > Network Settings. Reboot again.
4. Run CamFi Matrix. Click the "Add" button. Input the IP configured by step 3.
5. Repeat steps 2, 3, 4 for each CamFi.
6. Right click the CamFi entry. Select Order ID. Input the order ID for each CamFi. The order ID will apply to auto rename the photo file name if the auto rename option is checked. For example, the photos will be saved as 1_n.jpg, 2_n.jpg,3_n.jpg. "N" is the shooting count.

Wifi network

1. Download and install the CamFi windows app and CamFi Matrix on a Windows

PC via <http://cam-fi.com/en/download.html>

2. Connect CamFi to the PC with an Ethernet cable, then run the CamFi Windows app to upgrade the firmware.
3. After the rebooting, set the connection mode to Bridge Mode by Settings > Connection Mode. Select the Wifi network you want to join. Reboot again.
4. Repeat steps 2 and 3 for each CamFi.
5. Connect the PC to the Wifi network (the same network which the CamFi device joined). Run CamFi Matrix. Click the "Scan" button to scan all CamFi devices that are joined to the network.

Using CamFi Matrix

Change the folder for receiving the photos

1. Click the "Settings" button to open the setting window.
2. Click the "Browse" button near the Default folder. Select the folder, then click "OK" to save the settings.

All photos captured will be saved to the default folder. The file names in the folder and in the camera will be the same by default. If "Settings > Auto rename and save to default folder" is checked, all the photos will be renamed as "Order ID_Photo number" .

Auto rename and save to default folder option is very important for bullet time effect build. Please make sure it is checked when using CamFi Matrix Time Tool.

You may set a different folder for each CamFi by right clicking the CamFi list. Select "Download" folder. This option will be ignored if "Settings > Auto rename and save to default folder" is checked.

Trigger the capture

There are two ways to trigger the capture remotely.

One is using CamFi Matrix by clicking the "Capture" button via network. To trigger all the cameras to capture simultaneously, **please stop monitor before the capture**. Then restart the monitor after the capture to transfer the photos. From our test of 20 cameras, the delay between cameras in most of the shots was less than 1/200 seconds.

Another one is using wireless shutter release. Please change all the channels of the devices to the same one before the capture. In our test, the latency between the 20 cameras was less than 1/400s. CamFi Matrix will monitor the capture and transmit the photos automatically to the PC.

Reset all the photo numbers

The capture may fail when a camera is out of battery. The photo numbers need to be reset to keep the photo names consistent. Please right click the CamFi list. Select "Reset all photo numbers" . This will reset all the photo numbers to the max value.

Build bullet time video

Start CamFi Matrix Time

Open the app by clicking Start > CamFi Matrix > CamFi Matrix Time. It should run while CamFi Matrix is running.

Set the watch folder and build folder

Please set the watch folder to be same as the default folder setting in CamFi Matrix by Settings > Watch folder.

Note: It is important to make sure that the “Matrix settings > Auto rename and save to default folder” option checked.

Build folder is the folder where the app will output video. It should be different to the watch folder.

Start Auto watch

Press the “Auto watch” button. Now the folder receiving photos will be watched.

When there are photos moving into the watch folder, the photos will be copied into the build folder and be grouped by the date and shooting number. It will start to build video automatically when the photos count reaches Camera count set in the Settings. The building process will depend on the order of file names. Photos will be inserted as frames one by one. A failure may occur if there are illegal file names.

Manual Building

Please click the “Build” button on the task entry to start manually building. It will build the video even the photos are less than the camera count.

Play the video

Please click the “Play” button on the task entry to play the video. It will use the default video player to play the video.