

# CameraFTP VSS Software

(Virtual Security System)

## Manual



Use PC as CCTV DVR System

Security Camera Cloud Backup and Screen Recording

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# 1. About CameraFTP VSS

CameraFTP Virtual Security System (VSS) software can turn a PC into a powerful cloud-based CCTV system and Network Video Recorder (NVR). It can replace CCTV DVRs/NVRs, or add cloud recording and surveillance features to regular DVRs/NVRs. VSS supports almost all IP Cameras, DVRs and webcams. In addition, VSS supports screen recording, which is extremely useful.

VSS can be setup as a flexible and advanced CCTV DVR system. Dependent on your PC hardware, you can add many cameras to VSS for home or business monitoring.

VSS can record footage locally and to the cloud. Cloud recording is more secure than local recording in that the recorded footage cannot be deleted by an intruder. VSS is integrated with CameraFTP's cloud recording/surveillance service, offering far more features than regular DVRs. For detailed info about CameraFTP services and features, please visit [www.cameraftp.com](http://www.cameraftp.com) and click Features.

## 1.1 VSS Features

VSS is a Windows program that you can install on your PC. It can connect to your IP cameras, DVRs, webcams and even analog cameras (through video capture cards, a DVR, or screen recording). It displays live camera video while recording the footage to a local drive and the cloud. VSS has the following main features:

- Record webcam footage (incl. microphone);
- Connect to IP cameras or DVRs and record footage;
- Screen recording (incl. microphone and speaker);
- Record video clips, image snapshots or time lapse video/images;
- Local recording and cloud recording;
- Continuous and motion-trigger recording; scheduled recording;
- Multiple camera live views;
- Lock the application or the desktop;
- Play back recorded footage;
- Publish camera on CameraFTP and Live stream on YouTube.
- Very broad features on CameraFTP.com website, e.g.:
  - View / manage hundreds of cameras from a web browser or from CameraFTP mobile viewer apps;
  - Share cameras with other users and set view-only or full-access rights;
  - Publish cameras for anybody to view or embed camera viewer in your own web page.

## 1.2 VSS Advantages

CameraFTP VSS is a PC-based application. If you have an old PC or laptop, you can turn it into a CCTV DVR system by installing VSS. Compared with regular DVRs (NVRs), CameraFTP VSS has the following advantages:

- Cloud recording

VSS supports cloud recording. It is more secure than local recording as intruders cannot delete footage in the cloud, and it is much easier to view or play back footage remotely.

- Better software and features

A DVR system usually has very limited features. VSS is software based, offering far more features than a DVR.

- Low cost

If you have a spare PC/laptop, then there is no hardware cost; or you can order a low-end laptop for about \$200, which is about the same price as a typical DVR. Clearly, the laptop is better since it includes a display and a speaker.

- Flexibility and expandability

DVRs can only connect to certain number of cameras, e.g. a 4-channel DVR can only connect to 4 cameras. VSS can connect to any number of cameras. It is only limited by your PC's processing power.

- No vendor lock-in

Most DVRs can only work with cameras/services from the same vendor. This allows them to overprice their cameras/services. VSS supports most IP cameras, DVRs, and all webcams and video capture cards. You are not locked in with a camera vendor.

- Easy wiring and installation

VSS supports IP cameras and analog cameras. If you use Wi-Fi IP cameras or PoE IP cameras, you only need to wire power cable or Ethernet cable. (You don't need to wire 2 cables: power cable and BNC video cable). If you use Wi-Fi cameras, you don't have to mount your PC or cameras.

## 1.3 VSS Hardware Requirements

VSS software needs to be installed on a Windows PC. The latest version VSS software can only support Windows 10 and Windows 8. If you use Windows 7 or XP, you might have to install an older version.

VSS is very efficient. Most PCs can run VSS, incl. many old PCs. For Windows 10, it requires 2GB of RAM (4GB recommended), 32GB of HDD (64GB recommended).

The hardware requirement is dependent on your number of cameras and the video quality (resolution and frame rate). More cameras and higher video quality require faster CPU, more RAM and more HDD space. For 2 to 5 cameras, you can use an old PC/laptop running any version of Windows, or buy a low-end laptop for about \$200.

**Comparison with a regular DVR / NVR:**

Features	VSS	Regular DVR/NVR
DVR cost	\$200 or \$0 (if use an old PC/laptop)	\$200 DVR + camera cost + hard drive cost
HDD cost	Included	Usually not included
System Setup	Easy	Easy
CCTV Monitor Included	Yes (with laptop)	No (must be connected to a TV or monitor!)
Wi-Fi support	Yes	No (mostly)
Installation/Wiring	No wiring required, DIY	Professional installation required
Local Recording	Yes	Yes
Cloud Recording	Yes	No
Cloud based live view	Yes	No (mostly)
Cloud based playback	Yes	No (mostly)

## 1.4 VSS for Multi-site Monitoring and Remote Management

If you need to monitor multiple business locations, regular DVRs are hard to manage:

- Accessing a DVR remotely is difficult;
- Accessing the recorded data remotely is difficult;
- Assigning camera access rights to different users is difficult.

The VSS NVR solution has a big advantage over regular DVRs because of its integration with CameraFTP’s cloud surveillance service. You can configure all cameras within the same account, or multiple sub-accounts. A system administrator can assign different users with access to different cameras.

If you need full access to VSS remotely, you can easily use a remote desktop tool to access the PC from any location.

## 2. Setup VSS and Add Cameras

### 2.1 Setup VSS

Installing VSS is very easy and straight-forward. If you have not already installed CameraFTP VSS software on your PC, you can visit [www.cameraftp.com](http://www.cameraftp.com) and click the Software tab to download CameraFTP VSS. You can then run the software installer and follow the wizard to finish installation.

You also need a CameraFTP account. You can sign up a free (trial) account from [www.CameraFTP.com](http://www.CameraFTP.com), or with VSS. To sign up with VSS, just launch the program, in the login dialog, click “No account? Sign up free”.

After signup, you can launch VSS and log on with your CameraFTP username and password. The next step is to add a camera(s). VSS can then display the live video and record it to the cloud.

To add a camera, click the Add button. It will display “Select Camera Type” dialog as shown below:



You can add the following camera types:

- **IP Camera:** A regular IP camera or a network DVR
- **Webcam:** A regular webcam or a video capture card connected with an analog CCTV camera or other video source.

- **Screen-recording Camera:** A virtual camera that records your computer screen with microphone and speaker audio.

## 2.2 Add an IP camera / Network DVR

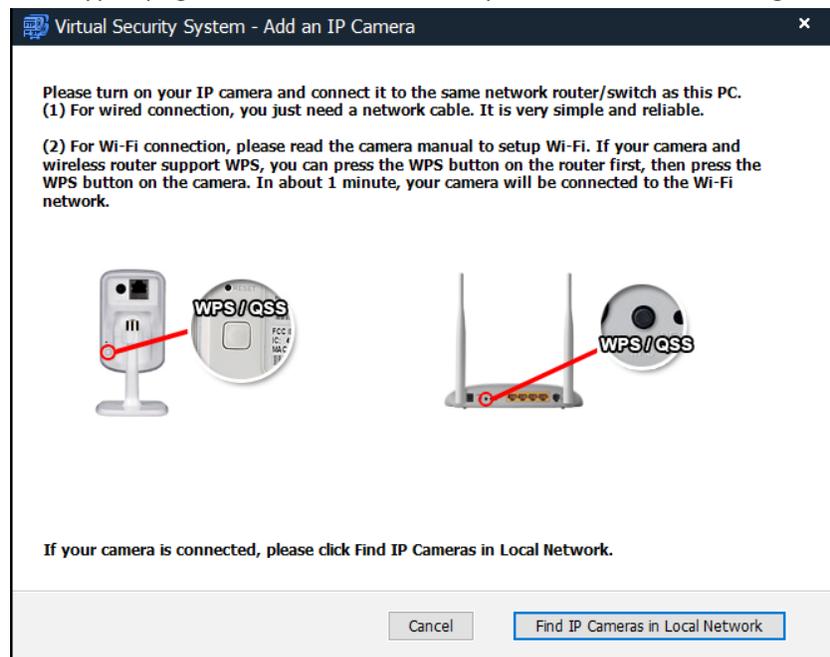
Many IP cameras can directly upload footage to CameraFTP cloud via FTP/SFTP. For information about how to do so, please visit [www.CameraFTP.com](http://www.CameraFTP.com), then click the Cameras tab.

You can also add an IP camera to VSS and use VSS to upload footage to the cloud. It has a few advantages:

- VSS can display your camera live views on the PC screen, making it a CCTV system.
- Some cameras cannot upload footage to the cloud (e.g. many mini-WiFi IP cameras), or can only upload images (e.g. most Trendnet and Hikvision IP cameras and D-Link 932L). VSS can connect to these cameras and upload images and videos.
- Some cameras can only upload very high resolution videos, requiring a lot of bandwidth. VSS can support many video parameters. It can reduce bandwidth usage and lower the service cost.
- Adding an IP camera to VSS is often easier than configuring an IP camera to upload directly.

To add an IP camera, first, connect your camera to the network. For information about how to connect your IP camera to the network, please read your camera manufacturer's manual or contact your camera's manufacturer.

In the "Select Camera Type" page, click "IP Camera", and you will see the following window:



If your camera is not connected to the network, please check the camera's manual about how to connect it to the network.

If you have already connected your camera to the network, click "Find IP Cameras in Local Network". VSS will automatically start scanning your local network for IP cameras. If your camera is not found, please make sure it is powered on and connected to the same network as the PC. You may need to retry for a few times. You can also try the manufacturer's software to find the camera's IP address.

After VSS finishes scanning the network, it will display a list of IP cameras it found:

Virtual Security System - Add an IP Camera

**13 Cameras found. Note: The device names may not be accurate; other devices could be incorrectly detected as cameras.**  
**Please select your camera from the list and click Next. If it is not there, please verify that your camera is connected to the same network. Try to connect to it with a web browser or other camera app. You can click "Scan Local Network" again. If you know the camera streaming URL, you can add it directly.**

IP Range: 192 . 168 . 1 . 1 -- 255 Ports (split by ", "): 80,88,8080,554,8 Scan Local Network

IP Address	Port	Device Name	Protocol Type	Status
192.168.1.200	5051	IPCH3516D	onvif	
192.168.1.22	80	NVSIP NVSIP-IPC	onvif	
192.168.1.23	80	TV-IP310PI	onvif	
192.168.1.24	2020	NC250	onvif	
192.168.1.25	80	Jo 01_0	onvif	
192.168.1.26	80	TV-IP762IC	onvif	
192.168.1.29	81	IPCamera HI3518E	onvif	
192.168.1.31	888	C1	onvif	
192.168.1.32	80	DCS-932LB1	http	
192.168.1.35	554	Unknown	http	

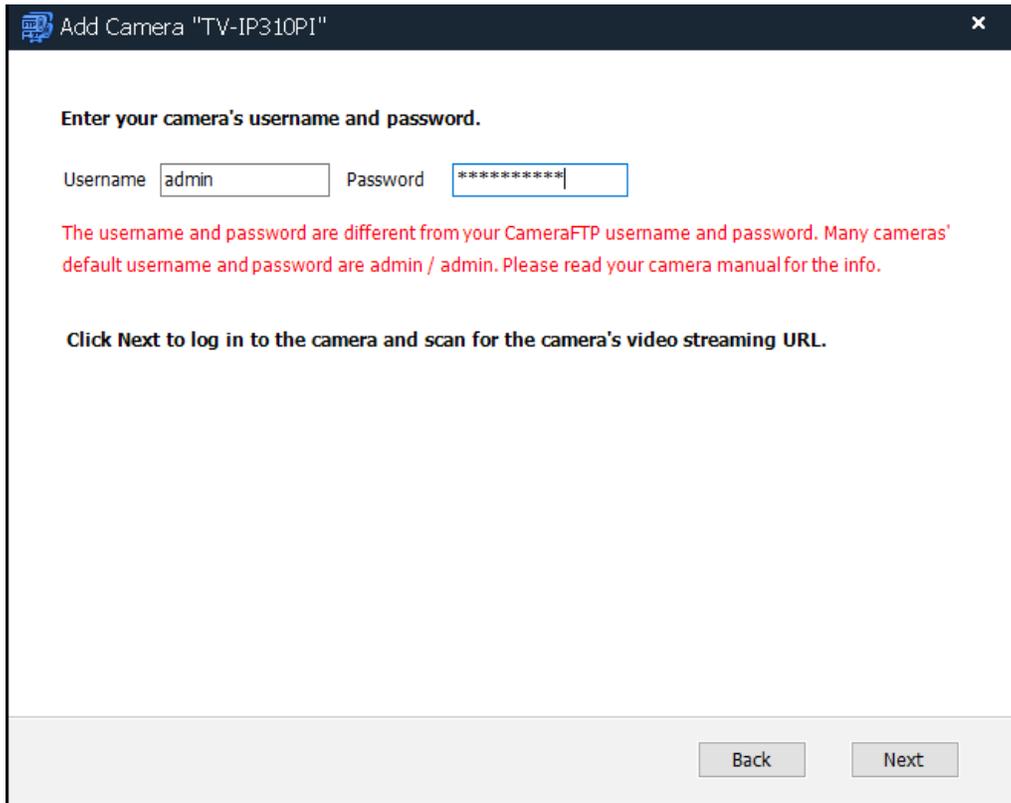
[Add Camera Streaming URL Directly](#) Back Next

Please note VSS relies on standard protocols such as HTTP and ONVIF to find your camera(s). Sometimes it may not be able to find your camera or determine its device name (brand name and model number). It may also incorrectly detect some other network devices as cameras.

If you cannot determine which IP address belongs to your camera, you can:

- Turn off the camera, then scan the network. Record the camera list;
- Turn on the camera, wait for one minute, and then scan the network again. Compare the list with the previous list, the new IP address in the list is your camera's IP address.

Select a camera and click “Next”; you will be asked to enter the camera's username and password (note it is not your CameraFTP username/password).



The screenshot shows a dialog box titled "Add Camera 'TV-IP310PI'". Inside the dialog, there is a heading "Enter your camera's username and password." Below this, there are two input fields: "Username" with the text "admin" and "Password" with a masked password "\*\*\*\*\*". A red warning message reads: "The username and password are different from your CameraFTP username and password. Many cameras' default username and password are admin / admin. Please read your camera manual for the info." Below the warning, there is a bold instruction: "Click Next to log in to the camera and scan for the camera's video streaming URL." At the bottom right of the dialog, there are two buttons: "Back" and "Next".

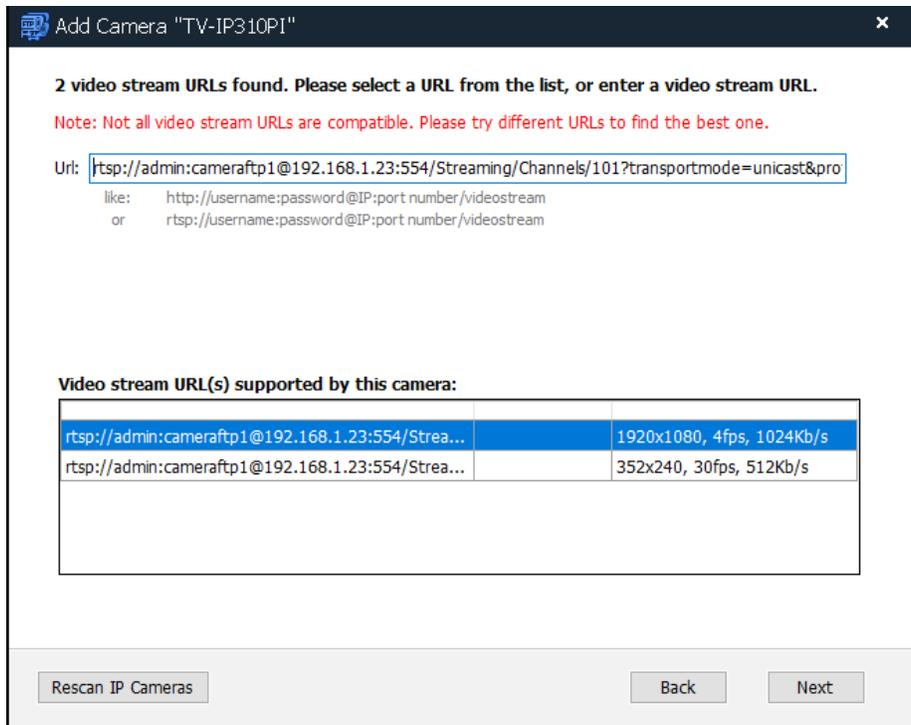
If you have not changed your camera's password before, then usually you can enter the camera's default username and password.

**Note:** Some IP cameras may require you to change your password before you can access the camera. If the default username and password don't work, you will need to access the camera's configuration page by entering the following URL in a web browser:

`http://IP_ADDRESS:PORT_NUMBER/`

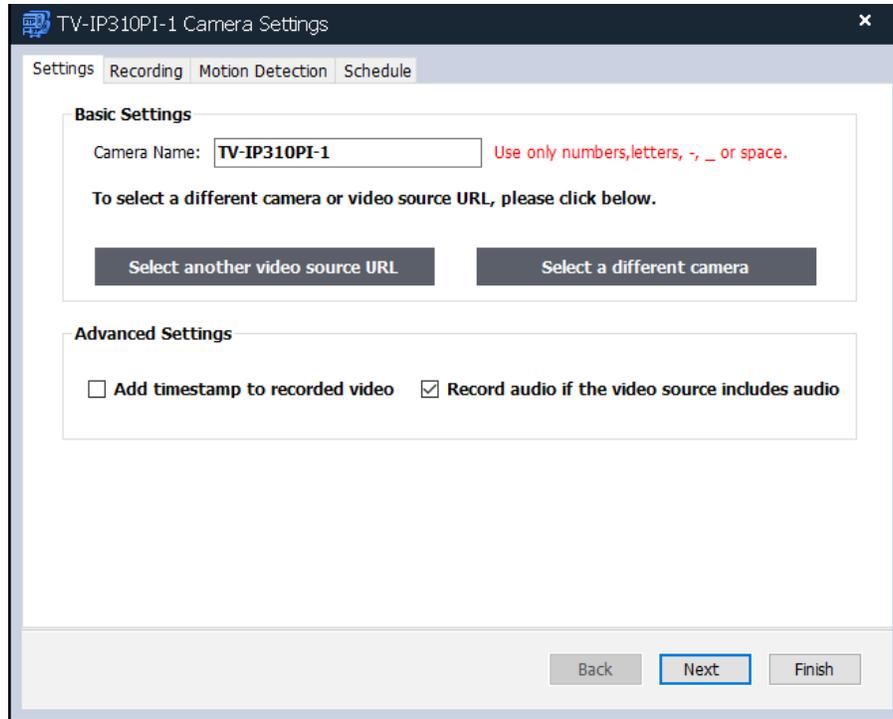
Or use the manufacturer's software to change the default username/password. For security, we recommend that you change your default username and password.

If the camera is compatible, then VSS will be able to find a list of supported video streams as shown below:



Different IP cameras may have very different video streams. Some cameras may support multiple video streams. You can select a suitable video stream by looking at the URL. The URL contains information about the type of video stream your camera supports. If you are not sure, you may have to try different video streams and pick the one that works best for you.

Click Next, VSS will verify the video stream URL. If it works, then it will display the settings dialog:



You can enter the camera name. Here the camera name is different from your local camera name. It is a folder name for storing the recorded camera footage. Each camera must have a different folder (i.e. camera name).

You can add timestamp to the recorded video. If the camera video stream includes audio, VSS can record the audio, but you can exclude the audio if you don't want it.

## 2.3 Add an NVR (Network Video Recorder)

Some DVRs/NVRs are IP based. They can directly record to the cloud. If so, you can configure them to record directly. You can also add them to VSS and use VSS to record to the cloud. Adding a DVR/NVR is similar to adding an IP camera. So please refer to Section 2.1. The main difference is:

- A DVR/NVR is usually connected with multiple security cameras. So it is like multiple IP cameras sharing one IP address.

To add a DVR/NVR, you need to find the DVR (camera) in the network first. VSS probably will find the DVR/NVR as an IP camera. You can then select the "camera" and click Next. VSS will try to find the video URLs of all cameras. If it succeeds, then it will display all URLs. Select a video URL corresponding to one camera, then finish adding it as a camera.

After you've added one camera, you can repeat the above steps to add a second camera. VSS will display "the camera has been added", but you can ignore the message and add it again. Just make sure to select a different video URL corresponding to a different camera.

Sometimes VSS cannot find your DVR/NVR's video URLs. If you know the video URLs, you can manually enter them. You can use a different camera software to find the video URLs, or contact the manufacturer to find the URLs.

## 2.4 Add a webcam

### 2.4.1 Advantages and disadvantages of using Webcam as IP camera

You don't have to buy IP cameras. You can use webcams as IP cameras. VSS supports all webcams, incl. built-in webcams and USB-based webcams. You can add multiple webcams to VSS.

Using Webcam as IP camera has a few advantages and disadvantages. The advantages are:

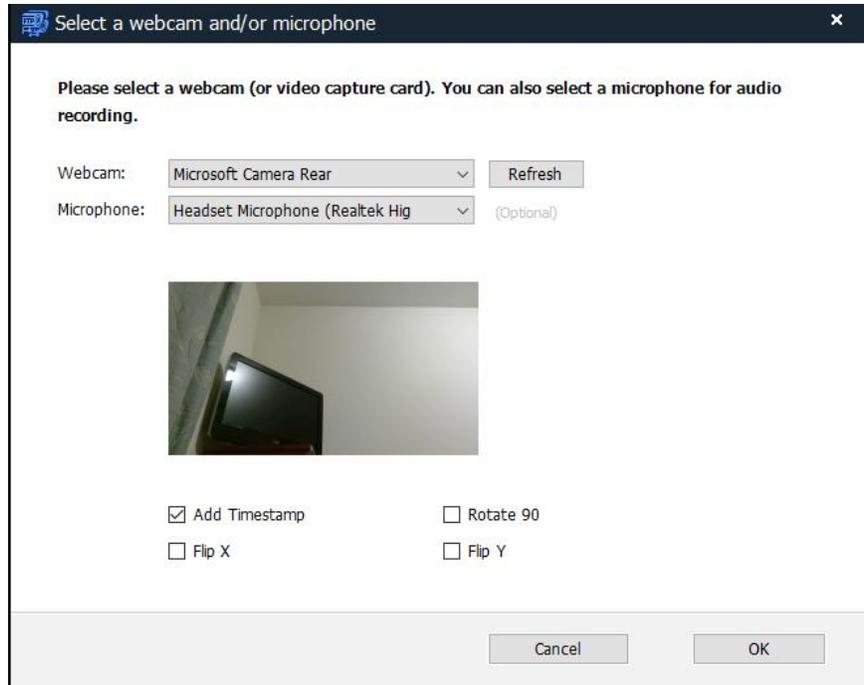
- Almost all laptop PCs have one or two built-in webcams. You can save a camera.
- It is far easier to add a webcam.
- A webcam is usually more reliable than an IP camera as it does not require network connection between the PC and the camera.
- A USB webcam does not require power adaptor/power cable. It only requires a USB cable, which is usually short. The longest USB extension cable is about 50 to 100-ft.

The disadvantages are:

- It usually does not support night-vision.
- It does not support Wi-Fi and the max USB cable length is about 50-100 ft.
- The max number of USB cameras are limited by your PC's available USB ports. (but you can increase it with a USB hub)
- It is usually for in-door monitoring only.

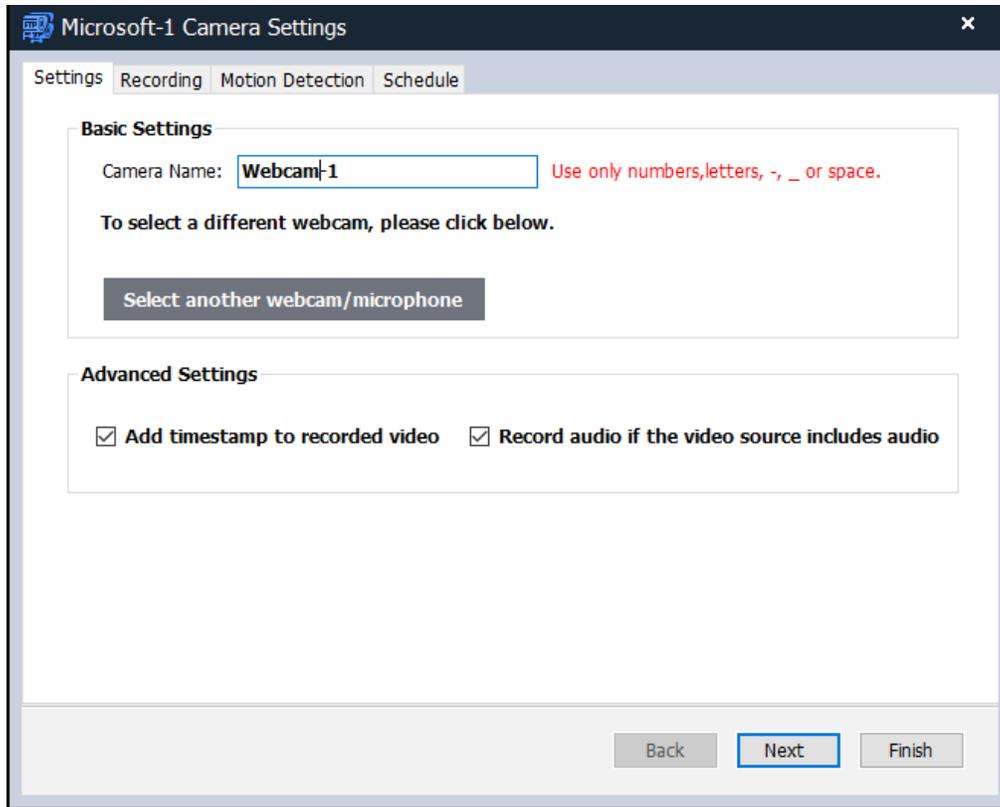
### 2.4.2 Add a Webcam to VSS

Log in to CameraFTP VSS Software, click Add, then click Webcam/Video Capture Card, you will see the following window.



If the computer is connected with multiple webcams (or video capture cards), you can select a webcam and optionally a microphone for video and audio recording.

After you select a webcam, it will display the camera's video. You can optionally select whether to Add Timestamp, Rotate, or Flip the video, then click Ok. You will be directed to the Camera Settings window:



Here, you need to enter the camera name, and check whether you want to add timestamp and record audio (if the video source includes audio). Click “Next, it will display the Record Settings screen:

## 2.5 Add an Analog CCTV Camera/DVR

Analog cameras are (old) CCTV cameras that don’t have any processing power. They cannot connect to the network or upload footage to the cloud. They must be connected to a DVR/NVR via BNC video cable.

Similarly, an analog DVR is not IP based. It cannot be connected to the network. But it can connect to analog cameras and record footage to a local storage media (such as a hard drive or tape). It can also connect to a TV or monitor and display camera live views.

An analog DVR or CCTV camera cannot be directly added to VSS. However, you just need to order a USB based video capture card (for only about \$10).



Connect the video capture card to your computer's USB port, and then connect the it with the analog DVR/camera via HDMI. If the DVR/camera does not support HDMI, e.g. if it supports S-video or VGA, then you can order a video capture card that supports S-video/VGA, or an S-video/VGA-to-HDMI converter.

With a video capture card, your analog DVR / camera will appear as a webcam. Please refer Section 2.3 for more info about how to add a webcam to VSS.

## 2.6 Add a Screen-Recording Camera

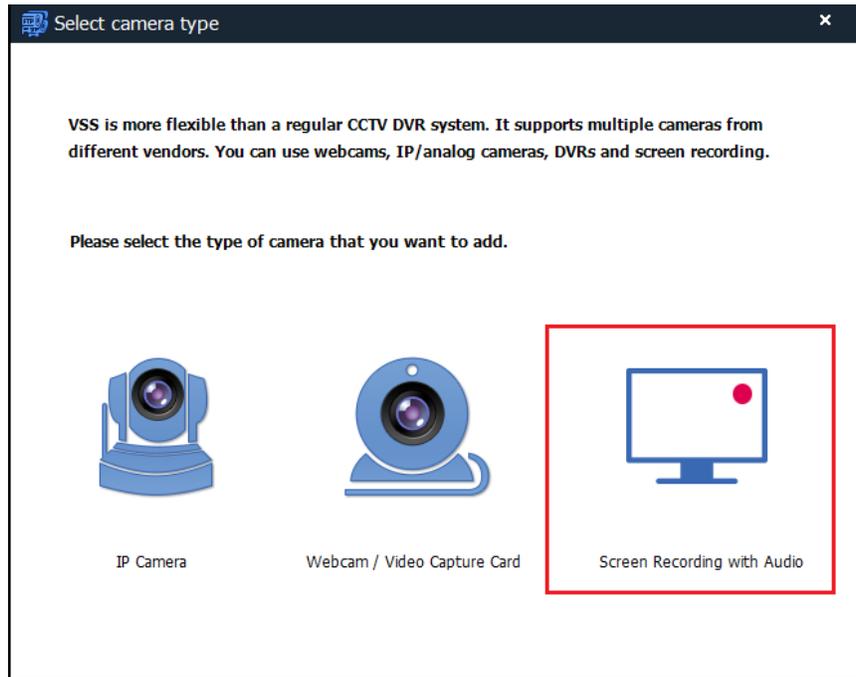
VSS can record your PC screens along with speakers and microphones. It can be used to:

- Monitor a computer (e.g. monitor your kid's PC usage, or if it is legally allowed, monitor a work PC or server)
- Record online video meetings/classes.
- Cloud recording/backup for a proprietary IP camera/DVR that does not support FTP/SMTP based uploading. If the camera/DVR can be viewed on a PC screen, then VSS can record it to the cloud.
- Create video instructions;
- Record games and TV shows.

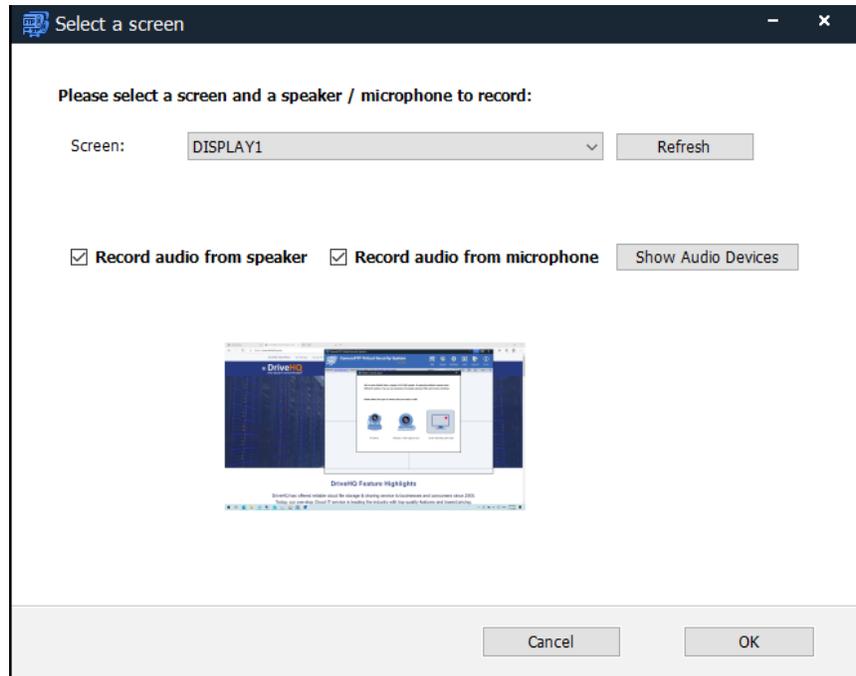
VSS's screen recording has the following advantages over other screen recording solutions:

- It can be configured to use very low storage space and bandwidth.
- It records to the cloud and can be viewed remotely in near real-time.
- It can record continuously for days, weeks or months.
- It can record audio from both speakers and microphones.
- You can add multiple screen-recording cameras to record multiple screens.

To add a screen recording camera, click “Add” in VSS’s main toolbar, then click “Screen recording with audio”.



It will display “select a screen” dialog:



You can select a screen (monitor) to record, and check/uncheck whether to record audio from speaker and microphone.

In some **rare** cases, you can set it to only record audio from a specific audio device(s). To do so, click “Show Audio Devices”. It will display:

**Please select a screen and a speaker / microphone to record:**

Screen:  Refresh

Speaker:

Microphone:

Record audio from speaker  Record audio from microphone

You can then select a specific speaker or microphone to record.

Click OK, it will display the Camera Settings dialog:

**DISPLAY1-1 Camera Settings**

Settings | Recording | Motion Detection | Schedule

**Basic Settings**

Camera Name:  Use only numbers, letters, -, \_ or space.

**Record:**

Screen: DISPLAY1  
Speaker: Headphones (Realtek High Definition Audio(SST))  
Microphone: Headset Microphone (Realtek Hig)

**Advanced Settings**

Add timestamp to recorded video

Here you can change the camera name (the camera folder name on CameraFTP.com), and check whether to add timestamp to recorded video.

If you want to change the selected screen, speaker or microphone, you can click “Change Screen, Speaker or Microphone”. It will display the “Select a screen” dialog so that you can change the selected screen and audio device(s).

Click Next, it will go to the same Recording Settings dialog.

## 2.7 Add a Proprietary IP Camera/DVR

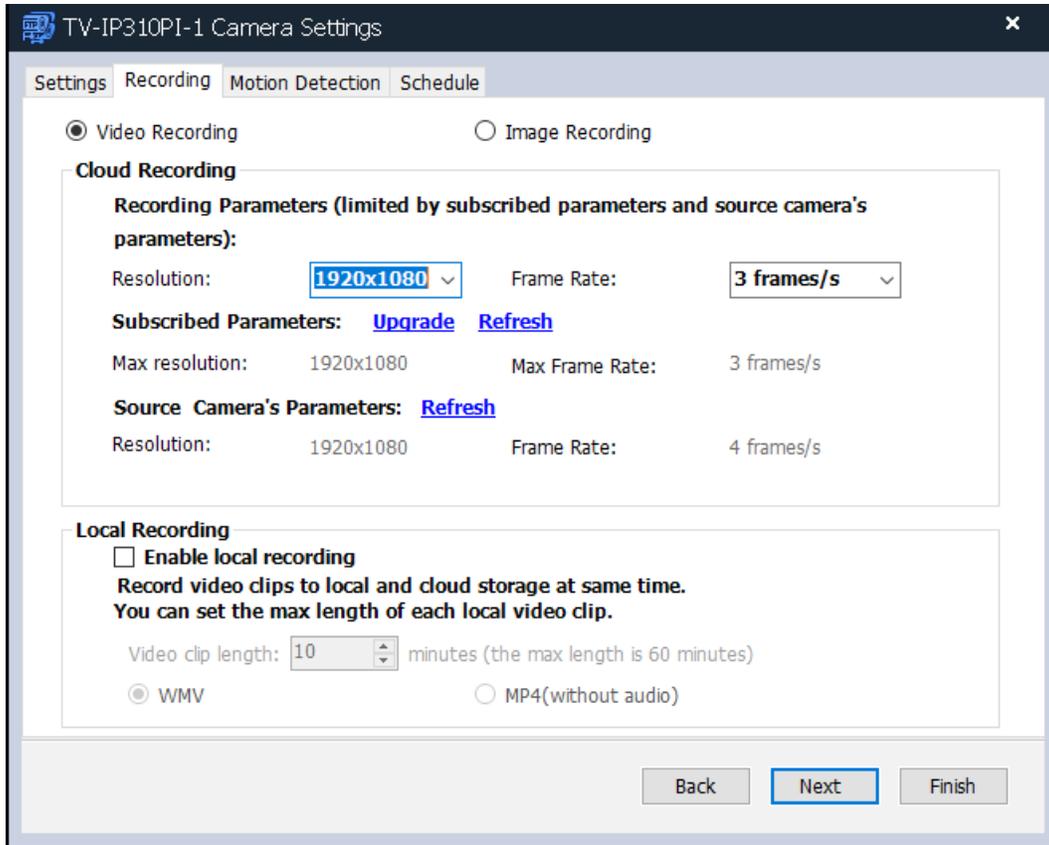
Some IP camera / DVR manufacturers (e.g. Nest Cam) offer cloud storage services. Their devices might be locked in with their own services (usually more expensive!). If a camera/DVR does not support standard protocols like ONVIF, RTSP and HTTP, then VSS may not be able to connect to it.

However, if the camera/DVR has a viewer program for PC, then you can use VSS's screen-recording feature to record the screen footage to the cloud. For info about screen recording, please refer to Section 2.6.

If the camera / DVR has video output via HDMI or S-video, etc., please refer to Section 2.5.

# 3. Settings, Schedules & Motion Detection

After you added a camera as described in Chapter 2, in the Camera Settings screen, click Next, it will display the Record Settings screen as shown below. (If you have already added a camera, you can edit the camera settings by moving your mouse on top of the camera live view, then click the edit icon).



In this dialog, you can configure whether to record video or images, and the video/image parameters.

For regular surveillance, **video recording is recommended as it offers better quality at lower price.**

**Image recording is better in the following scenarios:**

- Time-lapse recording. E.g. record an image every 10 minutes for a large construction project. You can then create a short video showing the entire project progress.
- Low frame rate recording, e.g. record an image per 15 seconds (or longer), to minimize the service cost or bandwidth usage (e.g. if you use a mobile data connection with limited bandwidth).
- Record very high image/video resolution. CameraFTP supports very high image resolution, but video recording is limited to Full HD (1920x1080) or 4K video.

After you select video or image recording, you can then select the video/image resolution and video frame rate (image upload frequency). The parameters must be lower than (or equal to) your subscribed plan parameters and the source video parameters.

**Note:** If you have a free trial account, the video resolution is limited to only 1280x720, and the frame rate is limited to 10 frame/s.

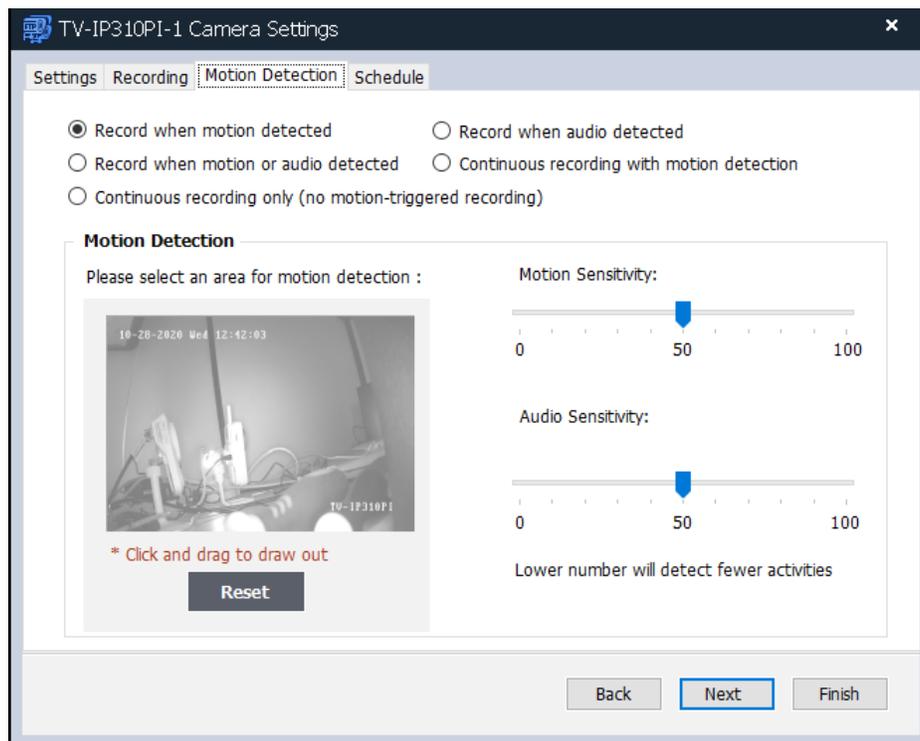
If you have just ordered a new subscription or upgraded your subscription, you need to click the "Refresh" link next to the "Upgrade" link.

### Local Recording:

By default, VSS only records to the cloud. Cloud recording is more secure in that the footage cannot be deleted by an intruder. You can also use CameraFTP Viewer apps to view the footage from anywhere.

However, VSS can also record to a local folder while uploading to the cloud. The retention time is the same as cloud recording.

**Click Next, it will display the Motion Detection settings screen:**



VSS supports the following motion detection options:

- Record when motion detected.
- Record when audio detected.
- Record when motion or audio detected.

You can select one of the above 3 options if you ordered a motion-recording plan.

- Continuous recording with motion detection.
- Continuous recording only (no motion-triggered recording).

You can select one of the above 2 options if you ordered a continuous recording plan. The difference between these 2 options are: Continuous recording with motion detection will create motion events. If you use CameraFTP Viewer app for iOS/Android, you will receive motion alerts. The other option does not create motion events.

You can customize the motion detection area and set the motion sensitivity. Higher sensitivity will create more motion events. To set the motion area, you just need to draw a rectangle on the camera thumbnail video.

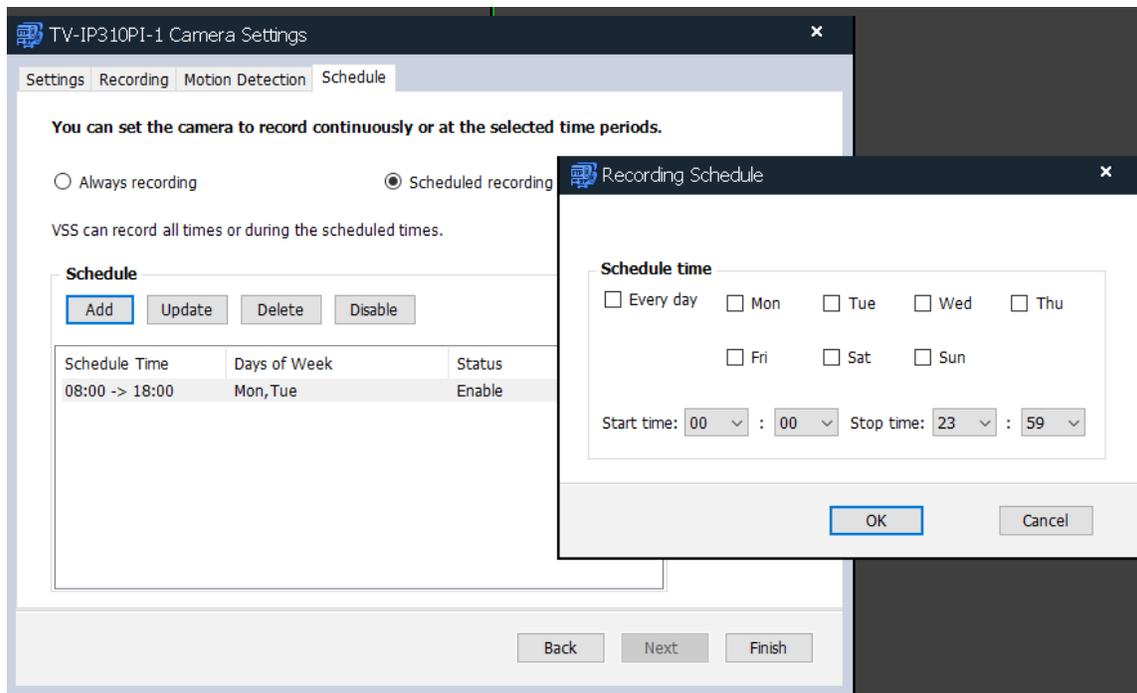
**Note:** If you are not sure whether to use motion detection or not, in general, motion detection is recommended. It can lower your cost by as much as 50%, and it will not upload any video clips when there is no activity. This uses less bandwidth and makes it easier to play back the recorded footage.

**Please note if you use the camera to monitor a busy scene (or set the motion sensitivity too high) such that your camera will be recording for over 10 hours/day, then even if you select motion detection, you shall order a continuous recording plan.**

**Click Next, it will display the Schedule tab:**

Most users can simply click Finish so that the camera can upload at any time. If you don't want the camera to record during certain time periods, you can configure Scheduled Recording so that the camera can only upload during certain time periods.

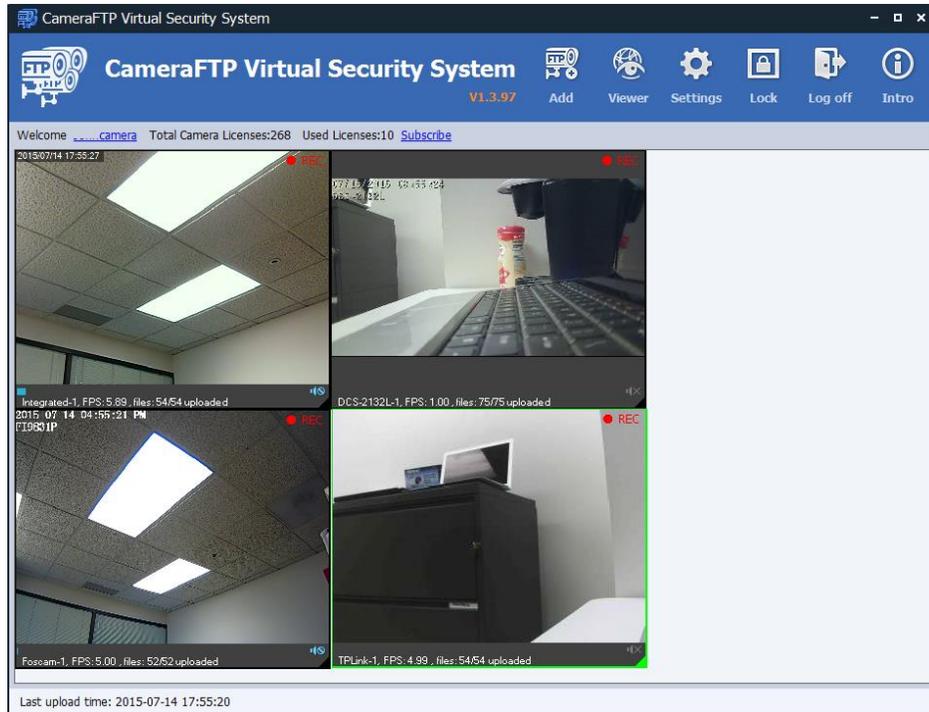
In this screen, you can click Add to add a new schedule:



As you can see VSS has very powerful scheduling feature. You can schedule it to record during normal business hours, night time, weekdays, weekends or any specific weekdays. You can even add multiple schedules.

Click Finished, your camera will be added and displayed.

You can add multiple IP cameras (or webcams, screens) to VSS. When finished, VSS will display multiple camera live videos and upload the footage to [www.cameraftp.com](http://www.cameraftp.com).



Hover your mouse on the camera to access the toolbar. This will allow you to: stop camera, disable recording, take snapshot image, edit camera info/source, view recorded footage, or delete camera.

## 4. Using CameraFTP VSS

So you have added cameras to VSS, it is very easy to use VSS from this point.

### 4.1 Manage Cameras

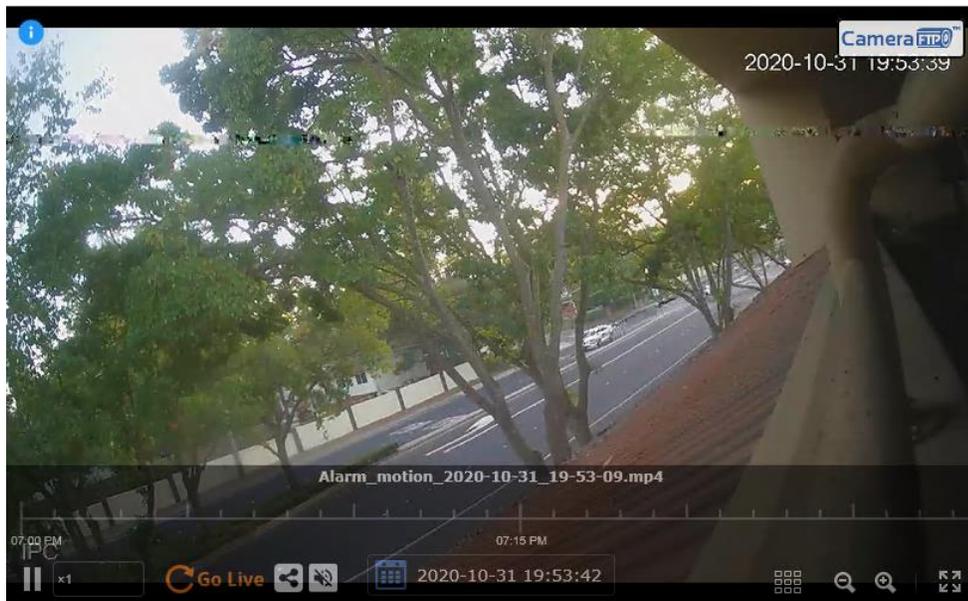
To manage a camera, just hover your mouse over the camera's live view. A toolbar will be displayed. You can stop, edit or delete a camera, disable recording, take a snapshot image, view locally recorded footage, or view the camera from the cloud (using a browser). Please see the screenshot below:



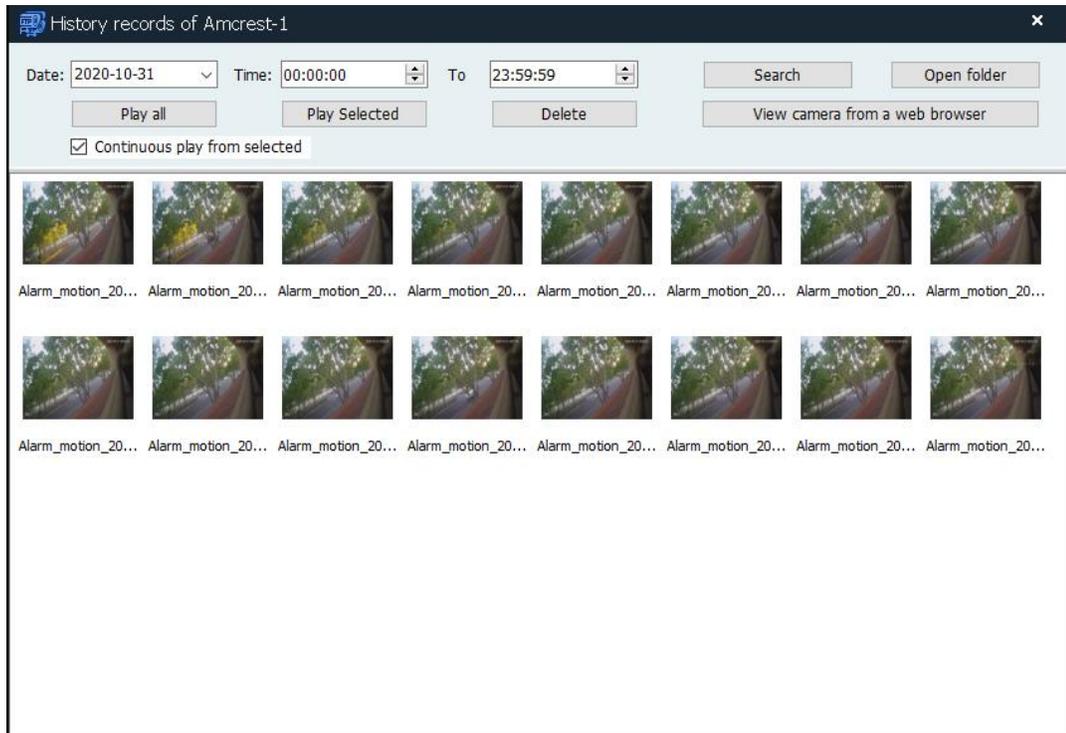
As shown in the above screenshot, there are 8 buttons in the toolbar, they are:

- (1) **“Stop Camera”**: The button will disconnect the camera from VSS, and the camera live view will be off. It has no impact to the physical camera.  
After you click it, the button will toggle to **“Start Camera”**.
- (2) **“Disable Recording”**: VSS will stop recording footage and uploading it to the cloud. The live view will still be displayed.  
After you click, the button will toggle to **“Enable Recording”**.
- (3) **“Take Photo”**: It will take a snapshot picture of the camera scene. After you click it, it will take a picture and save it to a local folder. It will then open File Explorer with the image file. By default, the image is saved to:  
C:\CameraFTP\CameraFTP Cache\Cameraftpdemo\video\CAMERANAME\grabs
- (4) **“Edit”**: You can change camera info and recording parameters. Please read Section 3.2 for more details.

- (5) "View footage on cloud": it will launch the web browser-based viewer. See the screenshot below:



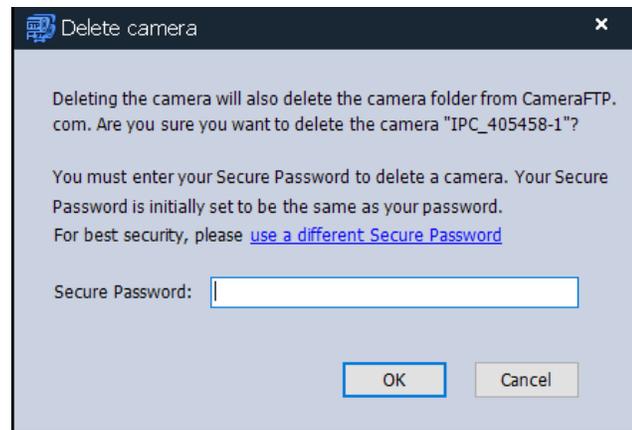
- (6) "View footage on local drive": It will display the recorded footage in the local cache folder. You can select the video clips to view. See the screenshot below:



You can select multiple video clips and play them continuously. You can also delete the selected video clips files.

If you need to directly access the local video storage folder, click the "Open Folder" button, which will open a Windows Explorer window showing the recorded files. You can use Windows Explorer to copy, delete or move files to an external drive. A secure password is not needed to delete the recorded files in your local drive (because an intruder can destroy your local storage anyway).

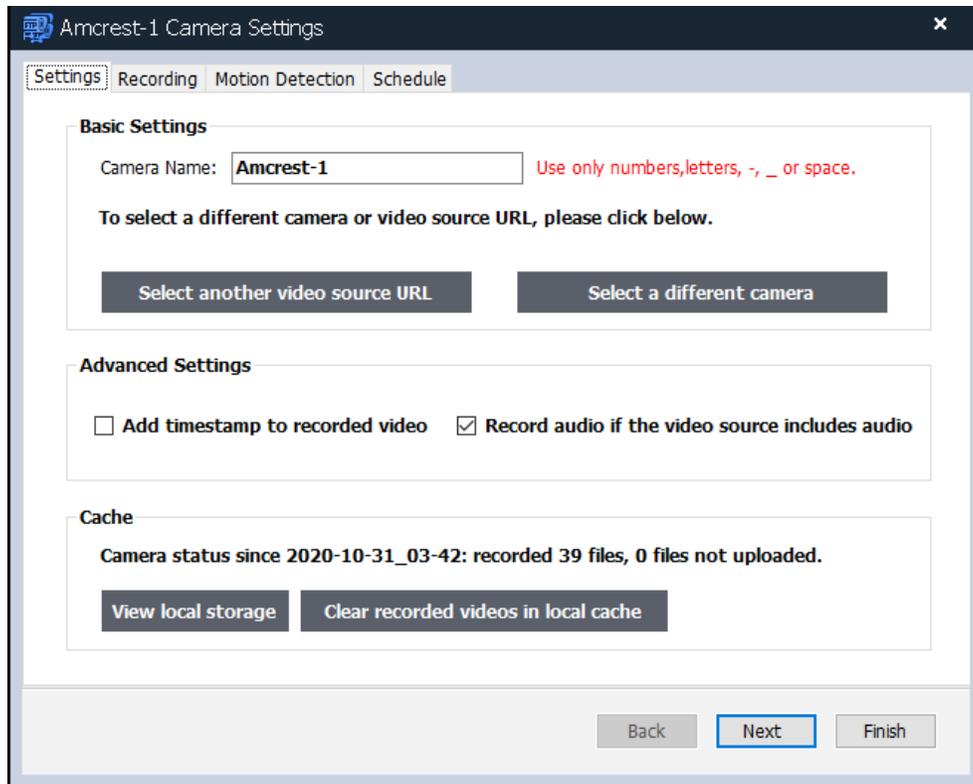
- (7) "Publish Camera": You can publish your live camera so that anybody can view it without a CameraFTP account. VSS supports Publishing to CameraFTP.com (Public Camera Gallery) and YouTube (Live Streaming). You can embed your published camera into your own web page. Please read chapter X? for camera publishing.
- (8) "Delete": You can delete a camera. If you click it, it will ask you to input your secure (camera admin) password.



When you delete a camera from VSS, it will also delete the camera folder on [www.CameraFTP.com](http://www.CameraFTP.com) and all files in it. For security, you must enter your Camera Admin/Secure password. By default, it is the same as your (initial) account password. But you can change your account password and secure password later. We recommend using different account password and secure password.

## 4.2 Change Camera Recording Parameters

Your recording parameters must not exceed your subscribed plan parameters. If you need to check or change your recording parameters, you can hover your mouse on top of the camera live view, then click the Edit button in the toolbar. It will display the following dialog:



From this screen, you can change the camera name. You can also select a different video source URL if the camera supports multiple video stream URLs. Different video stream URLs may have different video parameters. Try to select a URL with slightly higher video parameters than your subscribed plan parameters.

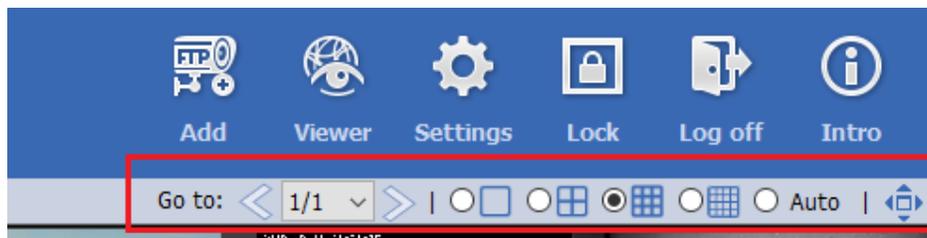
If your physical camera has been replaced, you can click “Select a different camera”. The rest of the steps are identical to the steps of adding a camera.

### 4.3 Change Camera Live View Layout

VSS can support many cameras. How many cameras can be added is dependent on your computer speed, source video parameters and recording parameters. More cameras can be supported if your computer is fast, and the source video parameters and recording parameters are low.



On top of VSS application window, you can see a small toolbar as shown in the screenshot below:

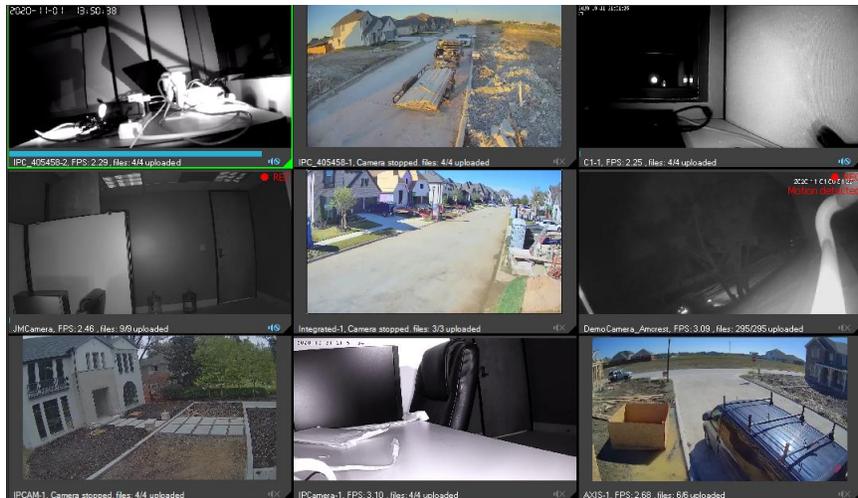


Multiple cameras can be displayed in the following layout templates: 1x1, 2x2, 3x3, 4x4 and automatic layout. You just need to select a layout template by checking the radio button next to it.

For each layout, it can also support multiple pages. You can go to a page by selecting a page number in the page number dropdown.

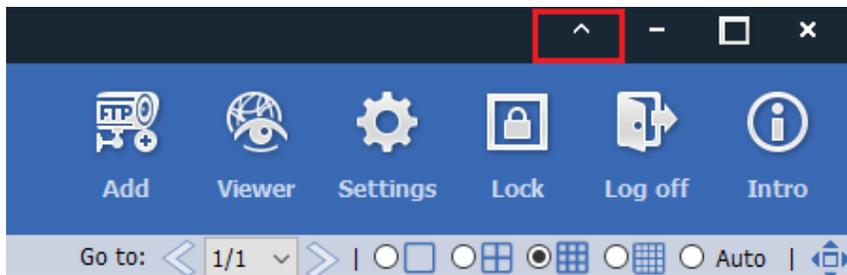
You can also manually move or adjust the camera live view size. If you double click on a camera, it will display the camera in 1x1 layout.

In the above small toolbar, the last button is "Full Screen". Click it, VSS will display the cameras in full screen:



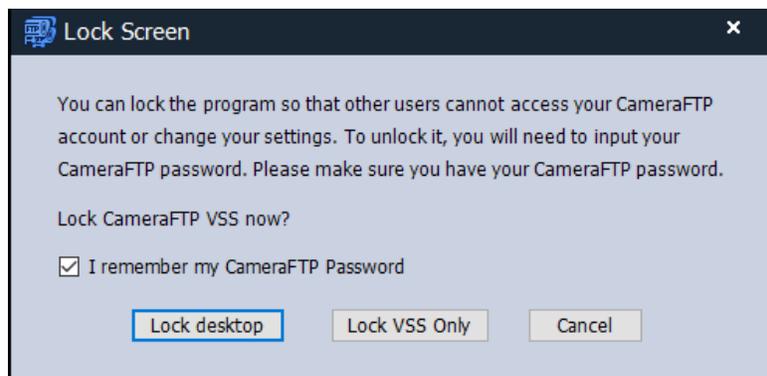
You can Press the “ESC” key on your keyboard, or right click on the screen to exit Full-Screen mode.

Another layout option is to hide the top section (incl. the main buttons and the small toolbar). See the screenshot below. You just need to click “^”.

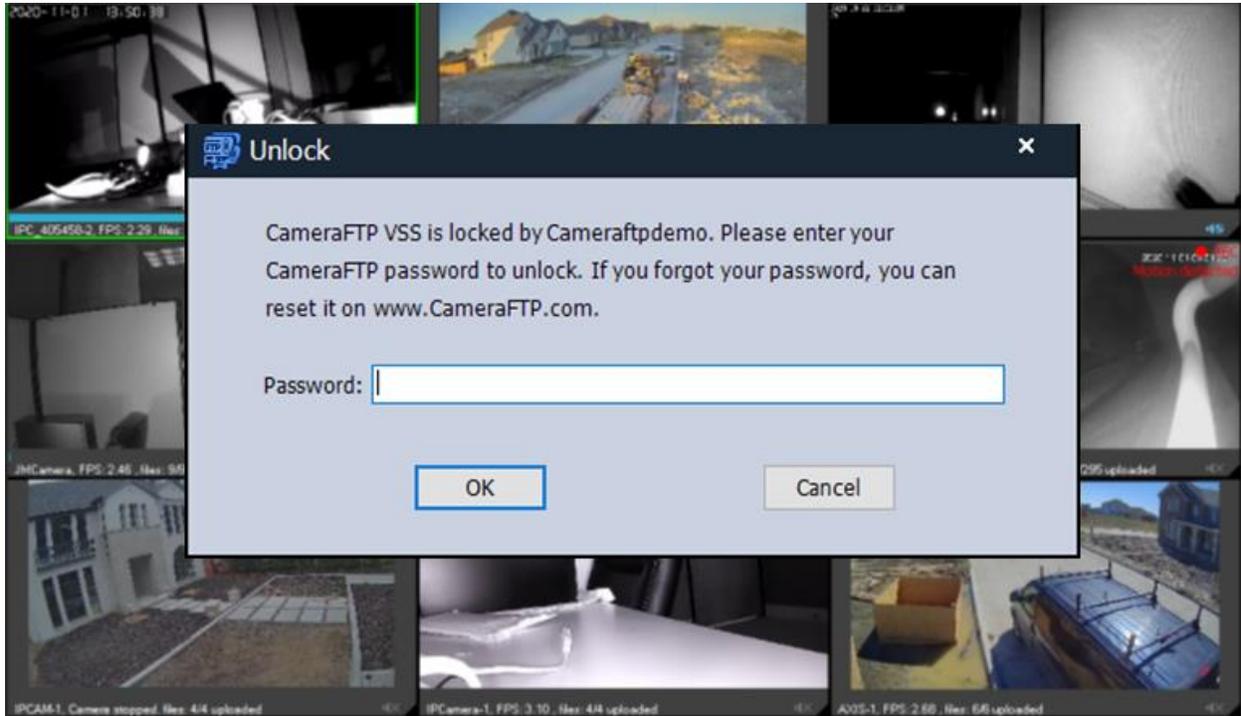


## 4.4 Lock VSS or Lock the Desktop Screen

When VSS is used as a CCTV DVR system, you probably don’t want other people to access VSS or the PC. You can lock VSS or the desktop. To do so, just click the Lock button, it will display:



**Lock Desktop:** VSS will display camera live views in full-screen mode. It is very similar to a CCTV system. All toolbar buttons are hidden and inaccessible. To use the computer or access VSS, you must unlock VSS by entering your CameraFTP account password. The following window is an example of the program being locked (you can display multiple cameras in this window):

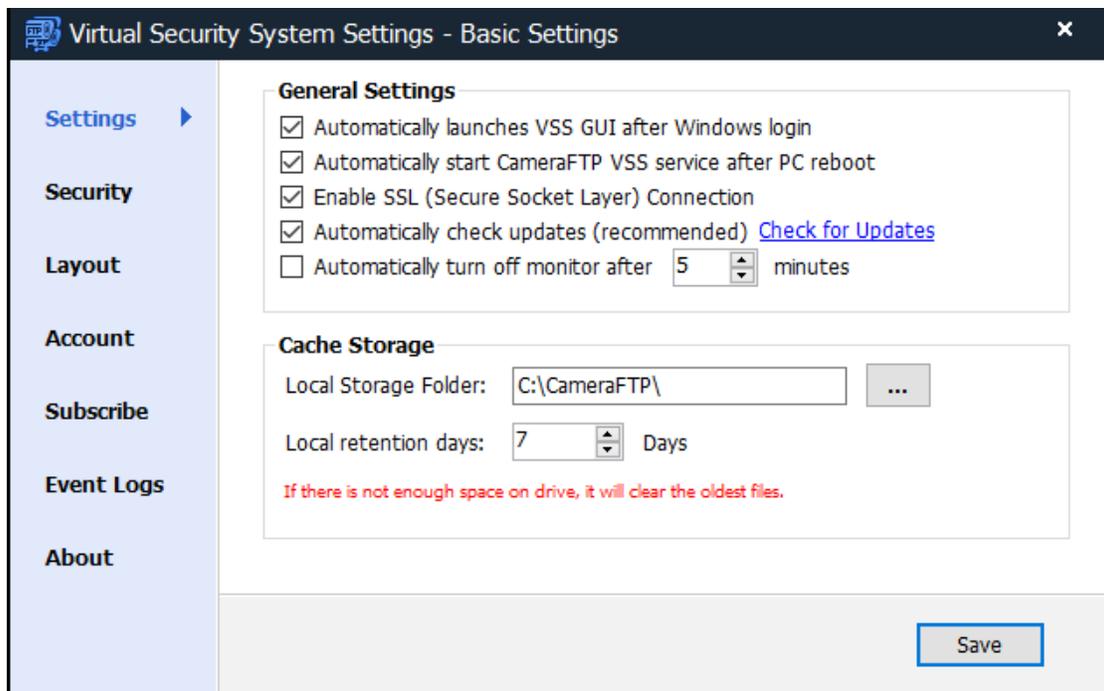


**Lock VSS:** It will only lock the VSS program. Other users cannot access VSS. They cannot stop/start a camera or access your account settings. But they can use other programs on this PC. To access VSS again, you must enter your CameraFTP account password in the "Unlock" dialog.

## 4.5 Access VSS's Settings Page

### Basic Settings

Click Settings in the main toolbar, and you will be taken to the "Basic Settings" screen.



On this screen, you can configure:

- **Automatically launches VSS GUI after Windows login.** If checked, VSS GUI program will launch automatically after you log in to Windows (after a reboot).
- **Automatically start CameraFTP VSS service after PC reboot.** If checked, VSS will automatically start as a Windows background service after PC reboot. It will connect to cameras and upload to the cloud even when nobody is logged on to the PC.

Note: Screen-recording cameras cannot work if VSS runs in the background service mode. If you need to record a screen, you must launch the VSS GUI program; then you can minimize it. It will continue running in the system notification area. (The bottom-right corner of your screen).

- **Enable SSL (Secure Socket Layer) Connection.** It should be enabled for security (unless you need to trouble shoot your network connection).
- **Automatically check updates.** You can enable/disable it; you can also manually check for updates.
- **Automatically turn off monitor after x minutes.** You can configure VSS to turn off the PC monitor after x minutes. If you uncheck the checkbox, VSS will not turn off monitor.
- **Local Storage Folder:** by default, VSS caches footage in the local folder:

C:\CameraFTP.

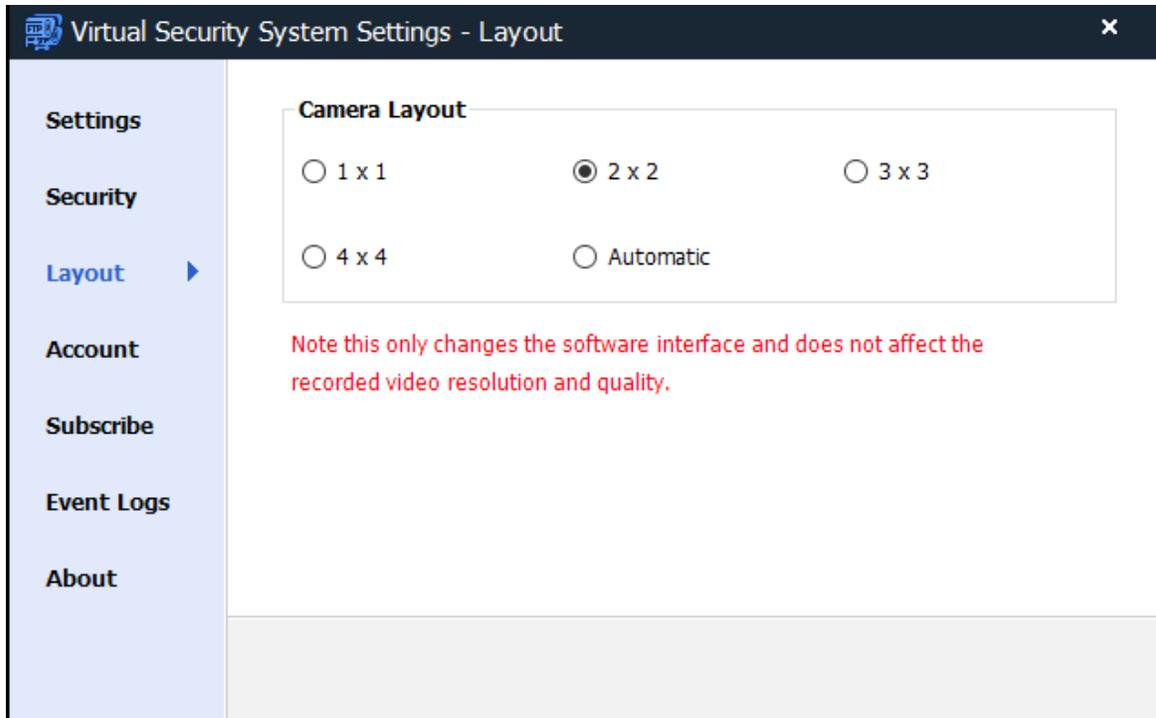
But you can change it to a different location (drive). Local recording is not a supported feature. It is used as a cache storage. If the drive is full, it will delete oldest files.

## Security Settings

From the Basic Settings screen, click Security, you can change your CameraFTP account password. Please note it will change your CameraFTP.com account password, thus it will affect your mobile CameraFTP Viewer app for iOS / Android / Windows.

## Layout Settings

From the Basic Settings screen, click Layout, it will display:



You can change the camera layout in this screen. Please note it only affects the camera live view layout in the program. It does not affect the recorded video. This feature is also accessible from the toolbar of VSS's main window.

## Account

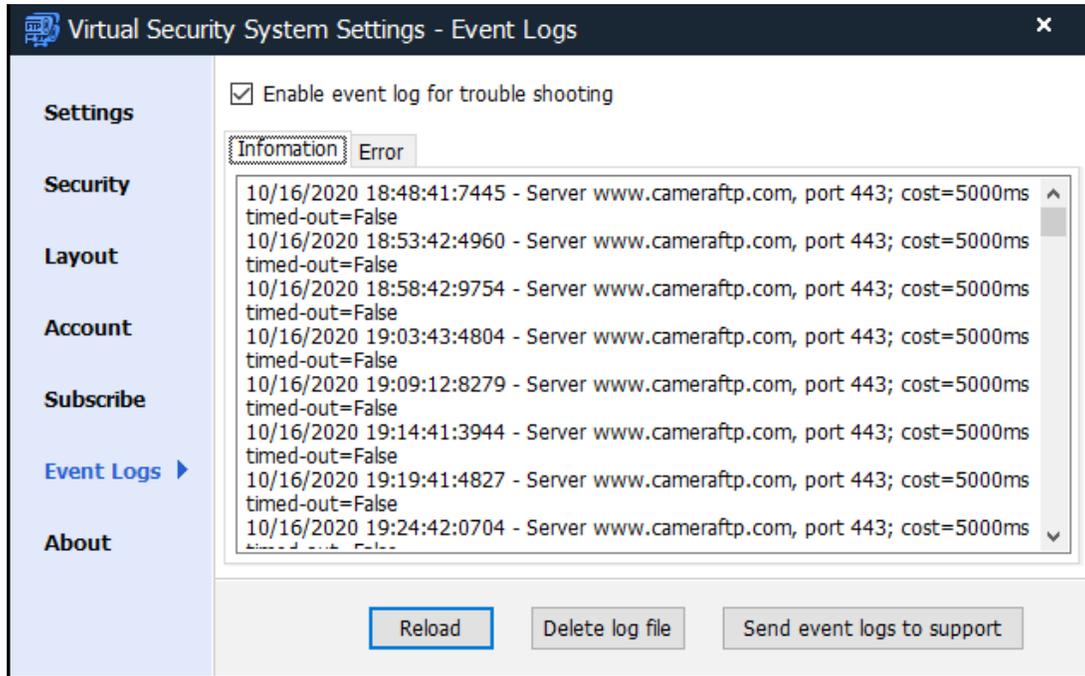
From the Basic Settings screen, click Account, it will display some of the account info, incl. your username, account type, camera license usage, cash balance, etc. More detailed account info is available on CameraFTP.com website.

## Subscribe

From the Basic Settings screen, click Subscribe, then click the Subscribe button, it will open a browser window for you to order a subscription.

## Event Logs

From the Settings screen, click Event Logs, it will display:

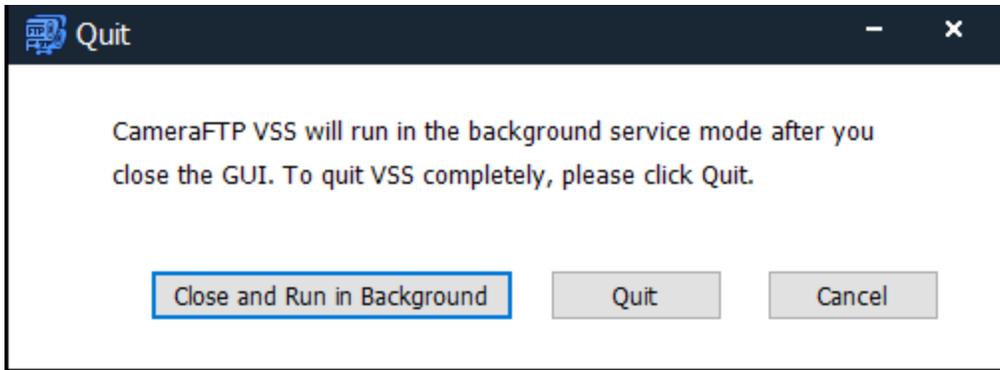


If "Enable event log for trouble shooting" is checked, VSS will record events for trouble shooting. This is very useful if your VSS has any problems, e.g. it cannot connect to your camera, cannot upload, or is unreliable. When reporting a problem with VSS, we recommend clicking "Send event logs to support" in the above screen. Please also send a separate email to CameraFTP customer support describing the detailed problem.

## 4.6 Run VSS as a Background Service

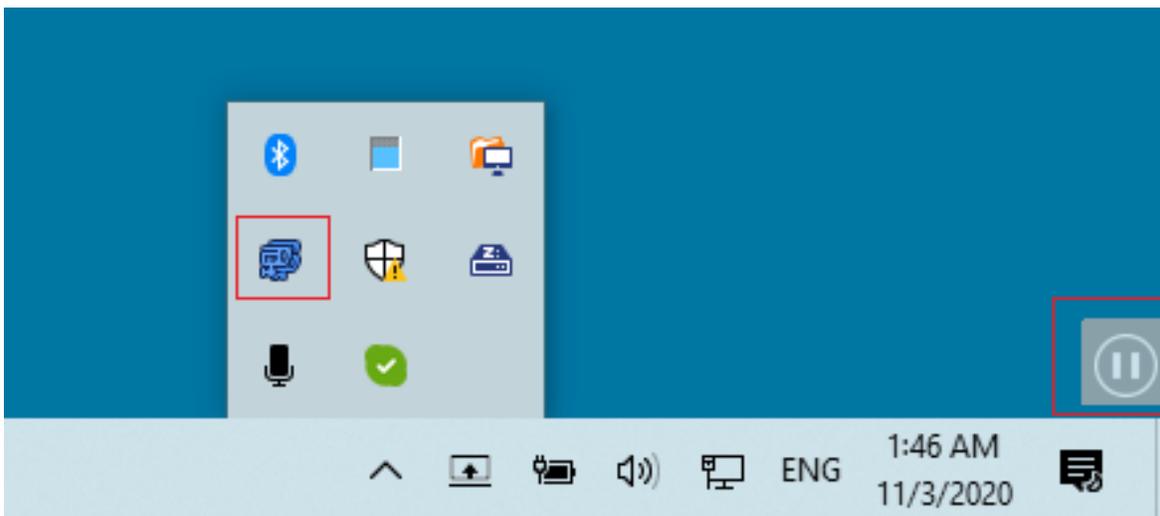
CameraFTP VSS usually runs in the application mode. It displays camera live views just like a regular CCTV DVR system. However, it can also run as a background service. The background service mode allows VSS to record footage when nobody is logged on to the PC or when the GUI is not displayed.

When you launches VSS, it runs as a GUI based application. To switch to the service mode, you can restart your PC without logging on to the PC, or you can manually close the VSS main window by clicking "x" on the top-right corner of the application window. It will display:



If you click “Close and Run in Background”, VSS will switch to the background service mode. It will continue recording footage to the cloud. If you click Quit, it will quit the program and stop recording.

Please note “Screen-Recording cameras” cannot run in the service mode. If you added a screen-recording camera, then you shall not close the application. Instead, you can minimize VSS. It will continue running in the system notification area at the bottom-right corner of your screen. Please see the screenshot below:

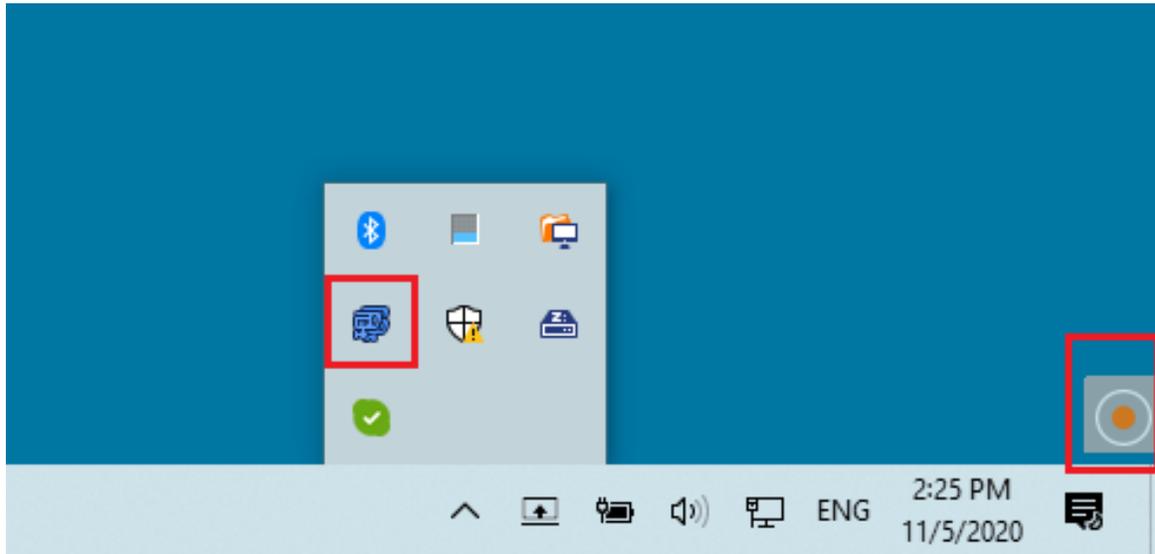


You can click the VSS icon to launch the GUI. You can use the Start / Pause button to start/stop screen recording.

## 4.7 Screen-Recording Camera Usage

If you added a screen recording camera to VSS, it will appear like other cameras. However, if VSS GUI is displayed on the screen, it will be recorded in the video. To avoid VSS from interfering with screen recording, you can minimize VSS. It will be hidden from Windows Taskbar. However, it will display a notification icon in the system notification area (bottom-right corner). Clicking the icon will open the VSS GUI.

You can start/stop screen recording without opening the VSS GUI. When VSS is minimized, it will display a small Start (or Stop) button at the bottom-right corner.



### Monitor Kid/Employee Computer Usage

VSS can be used for monitoring computer usage. (Please make sure it is done legally and appropriately).

First, install VSS on the computer and add a screen-recording camera. If the purpose is for monitoring, we recommend setting the video frame rate to 1 fps to minimize CPU load and bandwidth usage.

To prevent the camera from being stopped by the user, you can click the “Lock” button in VSS, then click “Lock VSS Only”, and then minimize VSS. VSS will hide the GUI. The user can use other programs on this PC normally. But he/she cannot access VSS, as it must be unlocked with your CameraFTP password.

Compared with other screen-recording programs, VSS has a few main advantages:

- It has very low CPU and bandwidth usage. Other screen recording programs will slow down your computer, affecting online video calling/meeting.
- The footage is recorded to the cloud, not to the local disk. The user cannot delete the footage.
- You can monitor the computer usage in real-time or play back the recorded footage remotely. CameraFTP Viewer is available for iOS, Android, Windows and any web browser. With other screen recording programs, you can only play back the footage from the same computer (when the user is no longer using the computer).

### Record/Stream Computer Games or TV Shows

A screen-recording camera can be used to record TV shows played on your PC. For best quality recording, set the recording parameters (video resolution and frame rate) as high as possible, and play the TV show in full screen mode.

You can also record computer games or even live stream it with the camera publishing feature.

### **Record Server Load and Usage History**

If you have a web server or application server that you need to monitor its load or performance history, or if you need to trouble shoot certain problems (e.g. memory leaks or random crashes), VSS's screen recording camera can be very useful. You don't have to sit there and watch Task Manager or Performance Monitor on your server. VSS can record the screen for you 24x7. You can then use CameraFTP Viewer to view the footage very efficiently and identify the exact time the server experienced high CPU, RAM, disk or network usage.

### **Back up Proprietary IP Cameras such as Nest Cam**

If a proprietary IP camera does not support standard protocols such as HTTP, ONVIF and RTSP, VSS cannot connect to it. However, if the camera has a viewer app or if it can be viewed with a web browser, then you can use VSS's screen-recording camera to back it up to the cloud. You can then use CameraFTP Viewer to live view or play back recorded footage from anywhere.

## **5. CameraFTP Viewer**

After you added your cameras to VSS, you can view the camera footage locally or remotely.

### **Local Live View**

VSS works like a CCTV system. It displays live cameras in the main window. You can change the camera layout, or manually resize the live view window. You can also click the Lock button and then select Lock Desktop. It will display the camera live view in full screen preventing other users from messing up with the software.

(Note: If you added a screen recording camera, you cannot lock the desktop because you will not be able to use any other programs on this PC. You can "Lock VSS Only" and minimize VSS to hide its GUI.)

### **Local Playback**

You can play back recorded footage using VSS's built-in local viewer feature. There are two ways to play locally recorded footage:

- (1) Move mouse on top of a camera live view, then click the View Local Footage icon.
- (2) Select a camera in the main window, then click the Viewer button in VSS's main toolbar. It will display:

**Virtual Security System stores recorded data in both local drive and CameraFTP cloud storage.**

To view your recordings locally from this computer, please select a camera first and then click:

[View recordings locally](#)

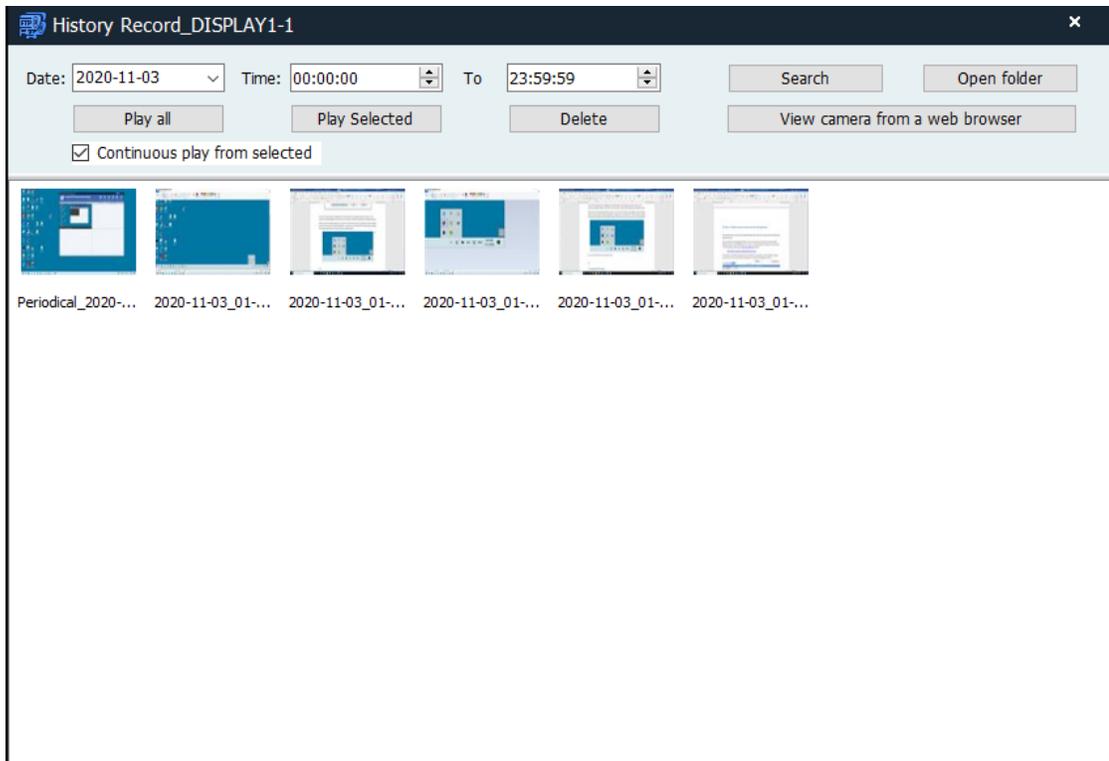
To view the recorded footage in the cloud, you can log on to cameraftp.com, click My Cameras.

[View Cameras in Browser](#)

Or download CameraFTP Viewer Apps for IOS, Android and Windows.

[iPhone, iPad, Android and Windows Phone, with QR-code](#)

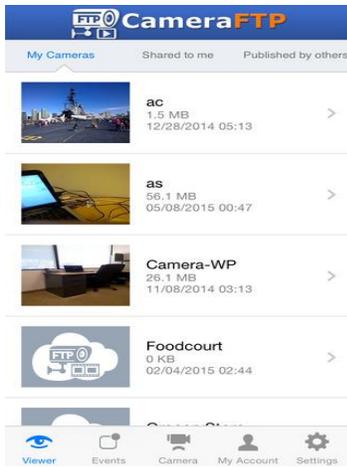
Click “View recording locally”, it will display:



You can then view or manage locally recorded footage.

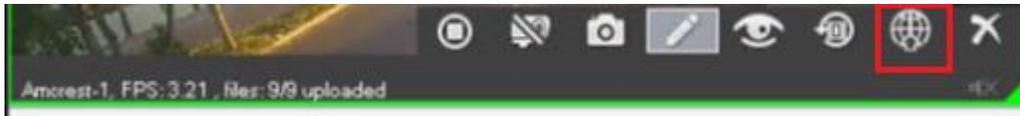
### **Browser-based Viewer and CameraFTP Viewer Apps for iOS, Android and Windows**

As VSS uploads footage to CameraFTP cloud, you can live view or play back your cameras from anywhere. Just log on to [www.cameraftp.com](http://www.cameraftp.com) from a web browser, or download our mobile viewer apps for iPhone, Android and Windows.



## 6. Publish Cameras

You can publish your camera online for anybody to view. To publish a camera in VSS, just move your mouse on top of the camera live view. It will display a popup menu. Click the Publish icon as shown below:



It will display the “Publish Camera” dialog. There are two options to publish a camera:

- Publish to CameraFTP.com.
- Publish to YouTube.

### Publish to CameraFTP.com

A screenshot of a web application dialog box titled "Publish Camera". The dialog has two tabs: "Publish to CameraFTP" (selected) and "Publish to YouTube". The form contains the following fields and options:

- Camera Name:** DISPLAY1-1
- Publish Name:** A text input field containing "DISPLAY1-1" with a red error message: "Must be numbers, letters, -, \_ or space."
- Description:** A text input field containing "DISPLAY1-1".
- Category:** A dropdown menu showing "Parks and attractions".
- Include in CameraFTP [Published Cameras](#)
- Enable Comments
- Last Updated:** Aug 18, 2018
- A scrollable text area containing the Camera Publishing Agreement terms and conditions.
- Yes, I agree to the [Camera Publishing Agreement](#)

At the bottom left is a link "Manage Publishes" and at the bottom right is a "Publish" button.

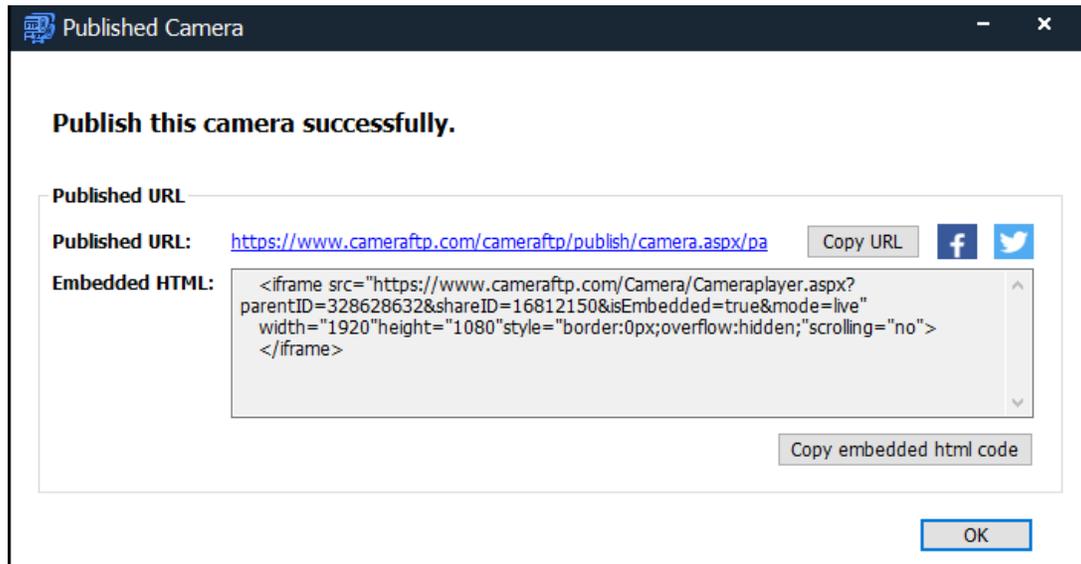
You can enter your Publish Name, Description and select a camera category, and optionally include it in CameraFTP’s Published Cameras page:

<https://www.cameraftp.com/cameraftp/publish/publishedcameras.aspx>

If you want viewers to comment, check the “Enable Comments” checkbox.

Your published camera must meet our quality requirements. You shall not publish any inappropriate scenes. Please read our Camera Publishing Agreement. You must agree to it to publish cameras on CameraFTP.com.

Click Publish, your camera will be published. It will display the camera's Publish URL and HTML code for embedding in your own web page.



You can share the publish URL with anybody. They can view your published camera without a CameraFTP account. If you need to embed the camera in your own web page, you can copy the Embedded HTML code and paste it in your webpage's HTML file.

If you closed this dialog and need to access the publish URL / HTML embed code again, you can log on to [www.cameraftp.com](http://www.cameraftp.com), then go to My Cameras page and click Manage My Publishes.

For more info about how to publish a camera and embed CameraFTP viewer in your own web page, please visit:

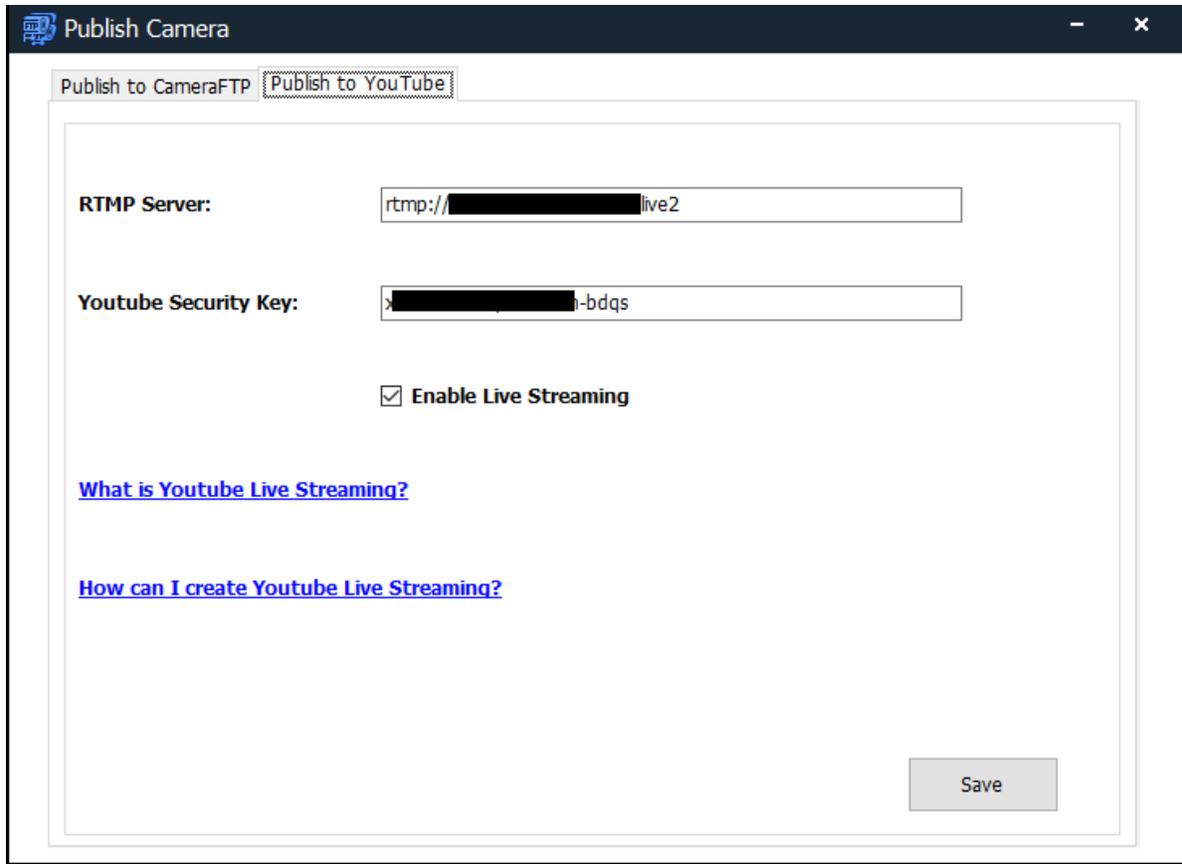
<https://www.cameraftp.com/camera/knowledgebase/howtoPublishCamera.aspx>

### **Publish to YouTube (Live Stream Your Camera on YouTube)**

This feature is available to RTSP video source only. Most IP cameras/DVRs support RTSP.

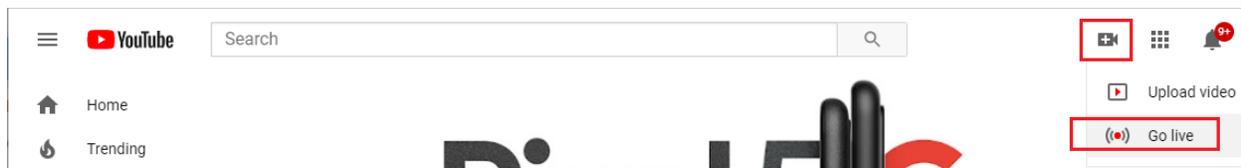
If your IP camera does not support RTSP, or if it is a webcam or screen recording camera, then this feature is disabled.

Click "Publish to YouTube", it will display:



If you are not familiar with YouTube Live Streaming, please click the links in this dialog to read the documentation. You can find your YouTube Security Key on YouTube.com:

Visit [www.YouTube.com](http://www.YouTube.com), click "Go Live" as shown below:



In the next screen, click Start (Either Right Now or Later Date), then click Go (in Streaming Software):

## Pick the type of stream to begin

### Built-in webcam *Recommended for first-time creators*



No setup required. Use your existing webcam for an easy way to go live. [Learn more](#)

GO

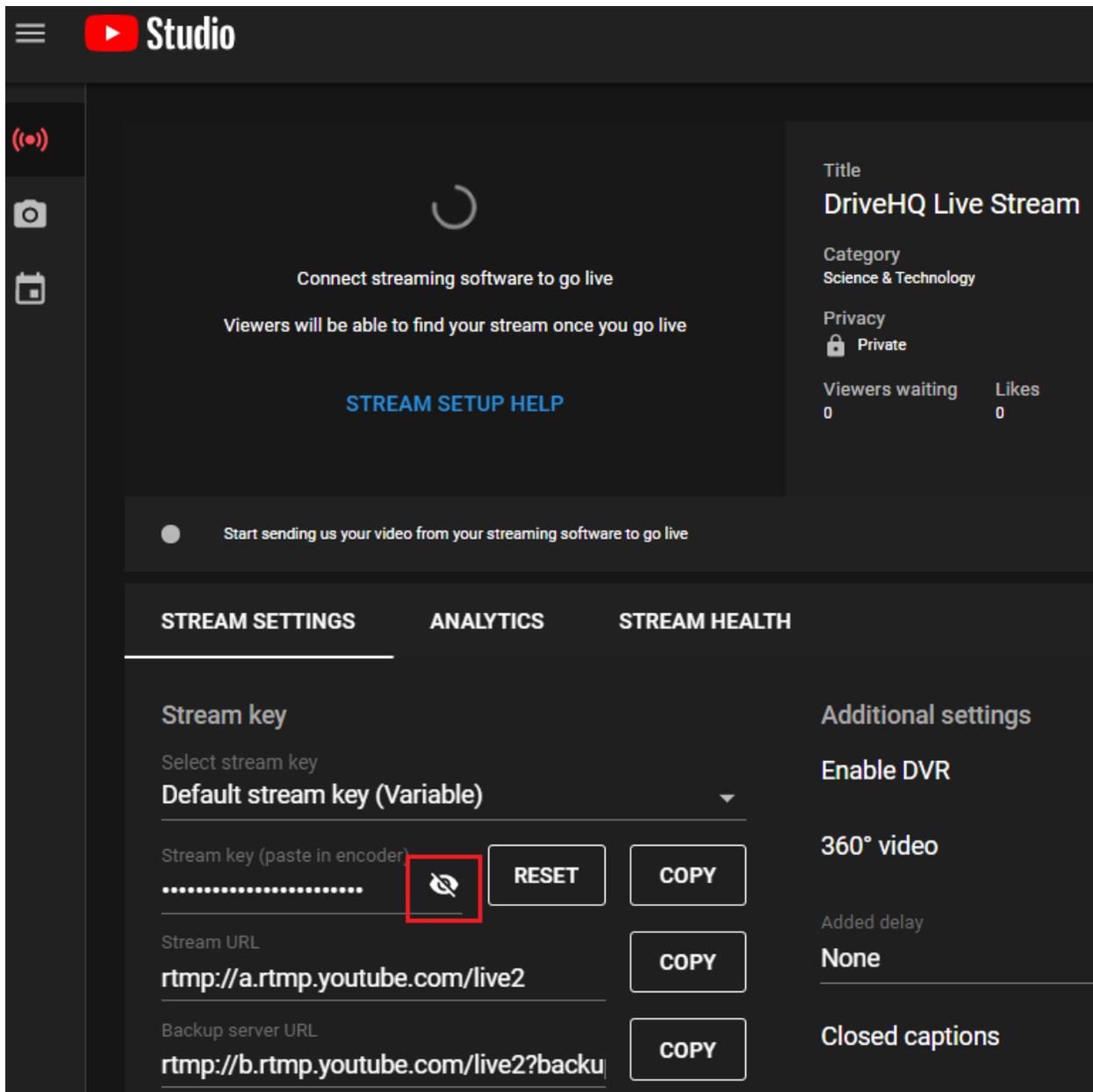
### Streaming software



Requires additional software. Add overlays, new graphics, and more. [Learn more](#)

GO

It will then display the following page:



Please copy the Stream Key and paste it into VSS's YouTube Security Key text box.

## 7. VSS Trouble-Shooting Guide

First of all, please understand that CameraFTP does not make, sell, install or manage IP cameras. CameraFTP employees and servers cannot connect to your camera, nor do we have your camera's username and password. We cannot automatically configure your cameras for you.

(1) VSS cannot find my camera or video stream URL

Please make sure your camera is connected to the same network router as your PC. If it has an Ethernet port, try to connect the camera to the network router with an Ethernet cable. A wired connection is more reliable than a wireless connection, which may help find the camera.

You can use other camera software to find the camera IP address and its video stream URL, or contact your camera manufacturer for the RTSP video stream URL; you can then enter the video stream URL in VSS.

Some IP cameras may require you to manually enable the ONVIF protocol and RTSP protocol. Please log in to your camera's configuration interface and check if you need to do so. Hikvision IP cameras require you to create an ONVIF user account. You need to enter the camera's ONVIF username and password when connecting to the camera from VSS.

(2) VSS worked fine before. But it no longer displays camera live views.

If VSS has multiple cameras and only one camera has no live view, then it is likely to be a camera problem. Please check your camera status and make sure it is working normally. You can try to reboot the camera. It usually can fix the problem.

If your camera periodically runs into the above problem, please check if it can be configured to automatically reboot every day or week. Many cameras support this feature.

If all cameras lost live views in VSS, then it is likely to be a network connection problem. Please check if the PC is connected to the Internet; and check if the cameras are connected to the same router as the PC.

(3) VSS stopped uploading footage to the cloud.

Please check if VSS is running fine and if there is any error message. If not, please log on to [www.cameraftp.com](http://www.cameraftp.com) and check if there is any error message. You can also check your CameraFTP events from CameraFTP Viewer mobile app or cameraftp.com website.

The problem can be caused by: account past due, free trial expired, exceeded usage limit, password error (you changed your cameraftp account password, but forgot to update it in VSS). Otherwise, restarting VSS might also solve the problem.

(4) VSS cannot upload footage on time. It queued many files.

First of all, please check your account status and events. If you don't see any problem, then it is usually caused by your network. You need more upload bandwidth. Alternatively, you can lower your recording parameters, which can reduce the bandwidth usage. Motion recording can save a lot of bandwidth and lower your service cost. It is recommended using motion recording instead of continuous recording.

(5) VSS's CPU usage is very high

VSS's CPU usage is dependent on:

- Your number of cameras.
- Your source video parameters.
- Your recording parameters.

If you have many cameras, then it probably is normal to see high CPU usage. You can try to lower the recording parameters in VSS.

You cannot lower source video parameters in VSS. It can only be done from your IP camera. Please log on to your camera's configuration interface, then change the source video resolution, frame rate and bit rate. Try to lower these parameters as close as your subscribed plan parameters.

Many IP cameras support multiple video streams with different video parameters. You can configure VSS to connect to a second video stream with lower resolution, frame rate or bit rate.

(6) Other issues:

For other issues, please contact CameraFTP customer support via email. Make sure to provide the detailed info about your problem. CameraFTP VSS has a built-in support feature. Please click Settings in VSS, then click Event Logs -> Send Event Logs to Support.