

Freedom VMS Guide

Adding a Device to Freedom VMS

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This document outlines the process of adding a device to the Freedom VMS software, this process is the same on both Client and Server versions.

Related Material (Clickable Hyperlinks)

- [Freedom Client off-site Configuration & Operation Guide](#)
- [Viewing Cameras Live](#)
- [Adding an ONVIF camera to a Freedom VMS](#)
- [Searching and Backing up Footage in V3.5](#)
- [ActiveX Installation Guide](#) (Configuring the Internet Explorer web browser to allow device configuration)
- [General Freedom VMS video tutorials](#)

Prerequisites

- The account you are logging in to Freedom VMS with must have 'Device Setup' permissions to add a device.
- If adding an 'embedded DVR to Freedom Client, the PC must initially be connected to the internet to register the device.
- If adding the device manually on-site, you must know the brand, IP address & the TCP port of the device you are adding.
- If adding the device off-site you must know the brand, public IP address or DNS and TCP port.
- You also need to know the Username and password for the account on the device you wish to add.

Adding the device

In Freedom VMS there are two methods of adding a device, one is called the 'Auto discovery method' which tries to detect compatible hardware on your local network (LAN) and populate a list of devices it finds.

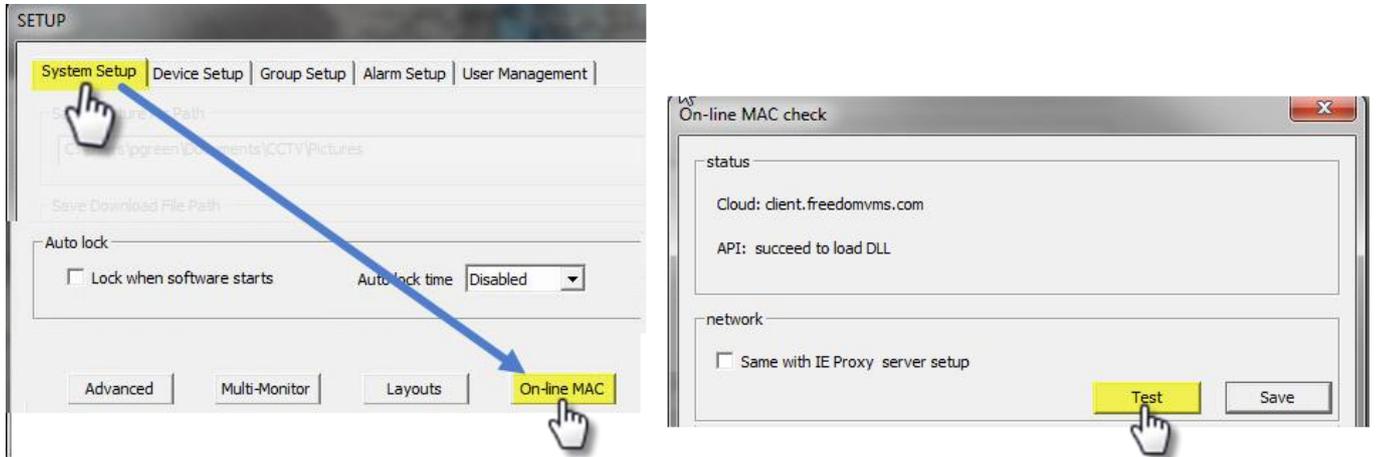
This method is sometimes 'blocked' from working by firewalls and cannot work over the internet, the second method of adding a device, which is known as the 'manual method'.

If adding a device from off-site, you must use the 'manual' method for adding the device.

Important! If adding an ONVIF IP camera you must ensure both the ONVIF camera and the PC running the Freedom Software are in time sync with each other by using an NTP server, before attempting to add the ONVIF camera to Freedom or connection will fail.

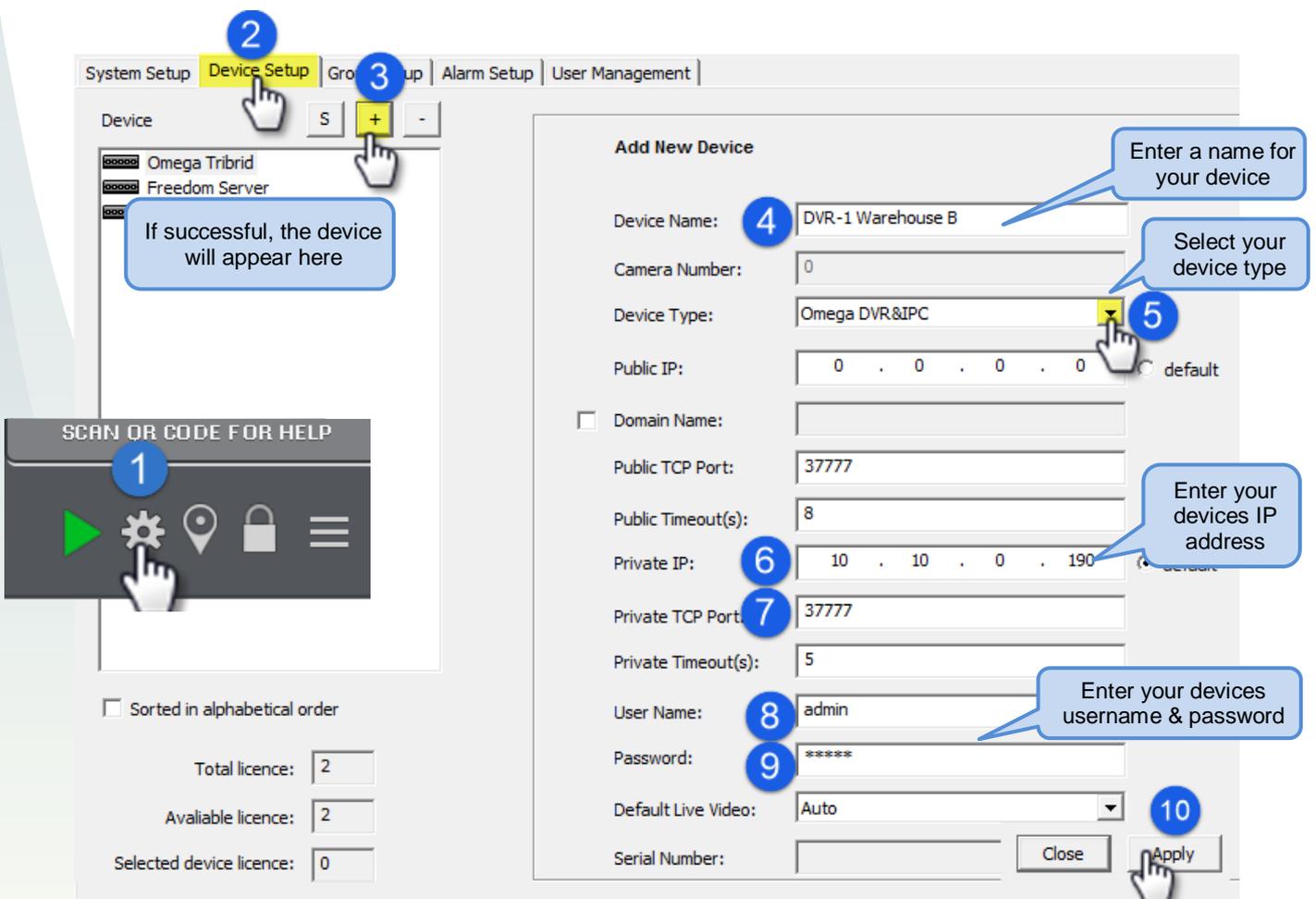
Adding a device manually

IMPORTANT! If adding an embedded recorder you **MUST** be connected to the internet while adding the device. For additional Freedom Client installations on the same site, you can use the saved configuration from this first client configuration without requiring internet access on the additional Freedom Client instances. To test the PC is able to connect to the Cloud Registration Server, you can navigate to **Setup** → **System Setup**, then click the 'On-line MAC' button at the bottom of the screen, then click the 'Test' button. Upon successful connection you will get a 'Succeed' message.



Open the Freedom VMS software, if this is a new installation the default user name is 'Admin' and there is no password, so just click 'Login', otherwise enter the username and password.

The image below illustrates the steps involved in manually adding a device. You do need to know the IP address, TCP port, Username and password of the device to do this.



With the Freedom software open, click on the 'Setup'  icon on the bottom right of the GUI. (Step 1)

Click on the 'Device Setup' tab (Step 2)

Click the 'Add' device icon  (Step 3)

Enter a name for the device i.e. 'DVR-1 Warehouse B' or 'C12 Front entrance' (Step 4)

Under device type dropdown list, select your device type (Step 5)

In 'private IP address' enter the IP address of the camera (Step 6)

Note: If viewing the device off-site you need to populate the 'Public IP' or 'Domain name' as well as the 'Public TCP' fields

Enter the Private TCP port of the device (Step 7)

Enter the Username and password in the appropriate fields. (Steps 8, 9)

Click **Apply** to save. (Step 10)

If successful the camera should appear at the bottom of the list on the left.

Adding a device using 'Auto Discovery'

Note: You do need setup rights to add a device in Freedom VMS.

Auto Discovery works within a LAN, will not work over the internet.

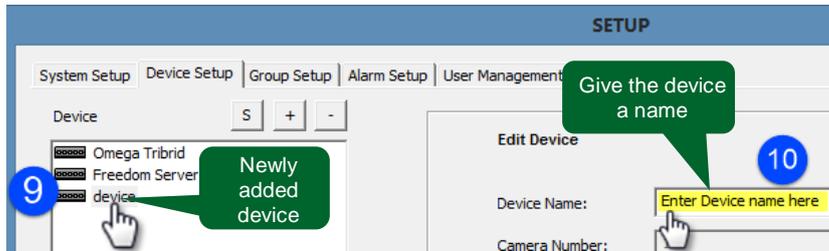
Auto Discovery is able to detect Omega, Maxima, Dahua and Hikvision products. It will not detect ONVIF IP cameras or Freedom Servers at this time.

You may receive a Windows firewall alert, click 'Allow access on private networks' to permit the discovery application to work correctly.

The image below illustrates the steps involved in using 'Auto Discovery' to add a device.



Use	IP	Port	Subnet Mask	User Name	Password	Model
<input checked="" type="checkbox"/>	192.168.1.100	7888	255.255.255.0	admin	admin	Omega DVR&IPC



Then click 'Apply' to save.

Steps:

Click 'Setup'  icon on the bottom right of the GUI. (1)

Click on 'device setup' (2)

Click the 'Auto Discovery' icon 'S' (3)

When the Search device window open tick each device you wish to add. (4)

Enter the Username and password for the device/s then click 'Change (5,6,7).

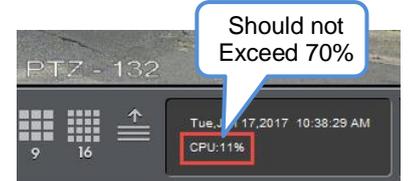
Click **Add to device list**. If successful a window will popup indicating 'Device successfully added', a generic device labeled '**device**' will appear in the device list in the left window pane, you can then click the 'Close' button.

Click on the name of the newly added device (9), then enter a name for the new device (10) then click 'Apply' to save.

Understanding HD camera viewing limitations

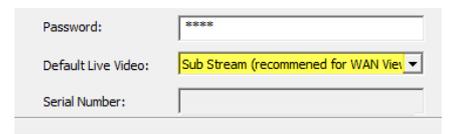
Unlike traditional SD Analogue camera systems, HD systems require a lot more CPU power to decode & display multiple HD video streams as well as requiring higher network bandwidth. The **amount** of HD cameras that can be displayed at the same time or in a 'camera Group' is limited.

When displaying HD video careful consideration should be given to how many HD cameras can be displayed without effecting performance or reliability of the Recorder or Viewing Client. A general rule of thumb is the CPU usage percentage should not exceed 70% consistently. The CPU usage can be viewed in the lower status window on the Freedom 'Liveview' GUI. (pictured right)



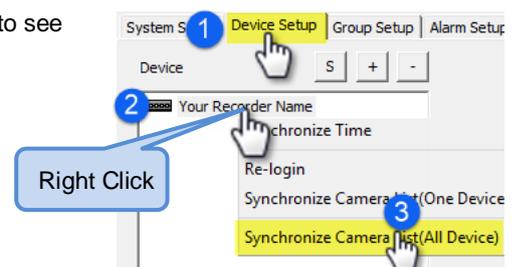
If the CPU limit or network bandwidth is being exceeded there are a few options available.

1. Reduce the amount of HD cameras being displayed at any one time (Groups).
2. Reduce the resolution, bitrate or framerate of the cameras
3. Upgrade the hardware (i.e. larger CPU or faster network link)
4. Change the 'Default Live Video:' option to use the lower quality 'Sub Stream' (pictured right)



Updating the camera list when a new camera has been added to your site

If someone has added new cameras to a DVR that is listed in your device list, to see the new cameras, you need to perform a 'camera list synchronization'
You do this by navigating to '**Setup**' → '**Device Setup**' and right click over the recorder/ device name and select "Synchronize camera list (all Devices)"
Shown in image on right.



Configuring Freedom VMS for off-site viewing

If you wish to view your device off-site, you either require a static 'Public IP address', externally addressable DNS address or VPN access. If no VPN access is available, your I.T. person must configure your network device with the appropriate NAT/port-forwarding information to allow external access.

To add a device that is off-site without VPN access you need to populate either the 'Public IP' field with a 'public IP' address or input your externally addressable Domain name (DNS) and also input the 'Public TCP Port' value.

The screenshot shows the 'Add New Device' configuration form. The fields are as follows:

- Device Name: device 8
- Camera Number: 0
- Device Type: Auto Detect
- Public IP: 0 . 0 . 0 . 0 (with a 'default' radio button next to it)
- Domain Name: (highlighted in yellow)
- Public TCP Port: 0
- Public Timeout(s): 8

A green callout bubble points to the 'Public IP' field with the text: "Add Public IP or Domain name for off-site access".

Refer to the [Freedom Client off-site Configuration & Operation Guide](#) for more information about using the software off-site.

If viewing a device both locally and off-site, for example using a laptop when at work then taking the laptop out of the office, with Freedom Client you can input both the 'internal' device address and 'external' device address details then Freedom automatically detects on which address the device is connectable on, using the 'Timeout' field setting. If always off-site you can lock in which address should be used by clicking the 'default' radio button.