

BBHN-MESH™ Software Applications

Part 2: iSpy Connect

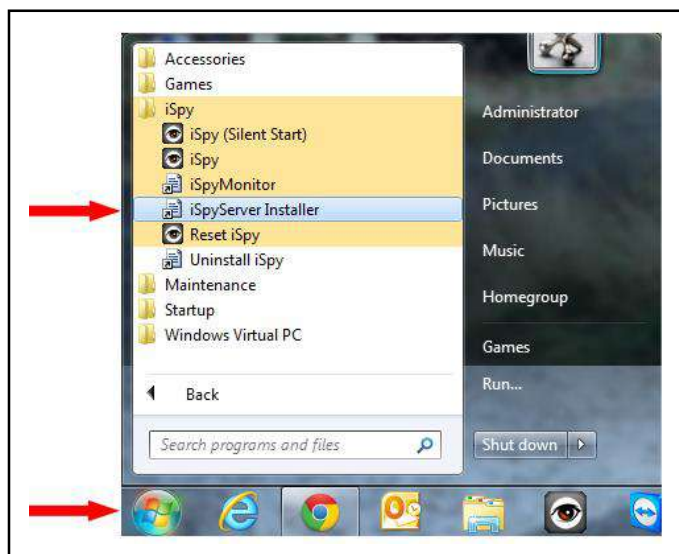
By Robert C. Mazur, VA3ROM, December 2013.

Before connecting your MESH node router disconnect or turn off your computer's hardwired or Wi-Fi Internet! If required, Internet access is provided differently within the BBHN-MESH system.

Video and Audio Streaming

iSpy Connect (<http://www.ispyconnect.com/>) is a free application consisting of client (local host) and server (remote host) programs providing video surveillance (and optional control) using webcams, IP cameras and microphones through the Internet or BBHN-MESH. It has other features but I won't cover those.

- a. Download the software and run the installation program [local host].
- b. To install the iSpy Server [remote host], click the **Windows Globe** icon, click **All Programs**, click the **iSpy** folder, and click **iSpy Server Installer** (Windows XP steps are similar).



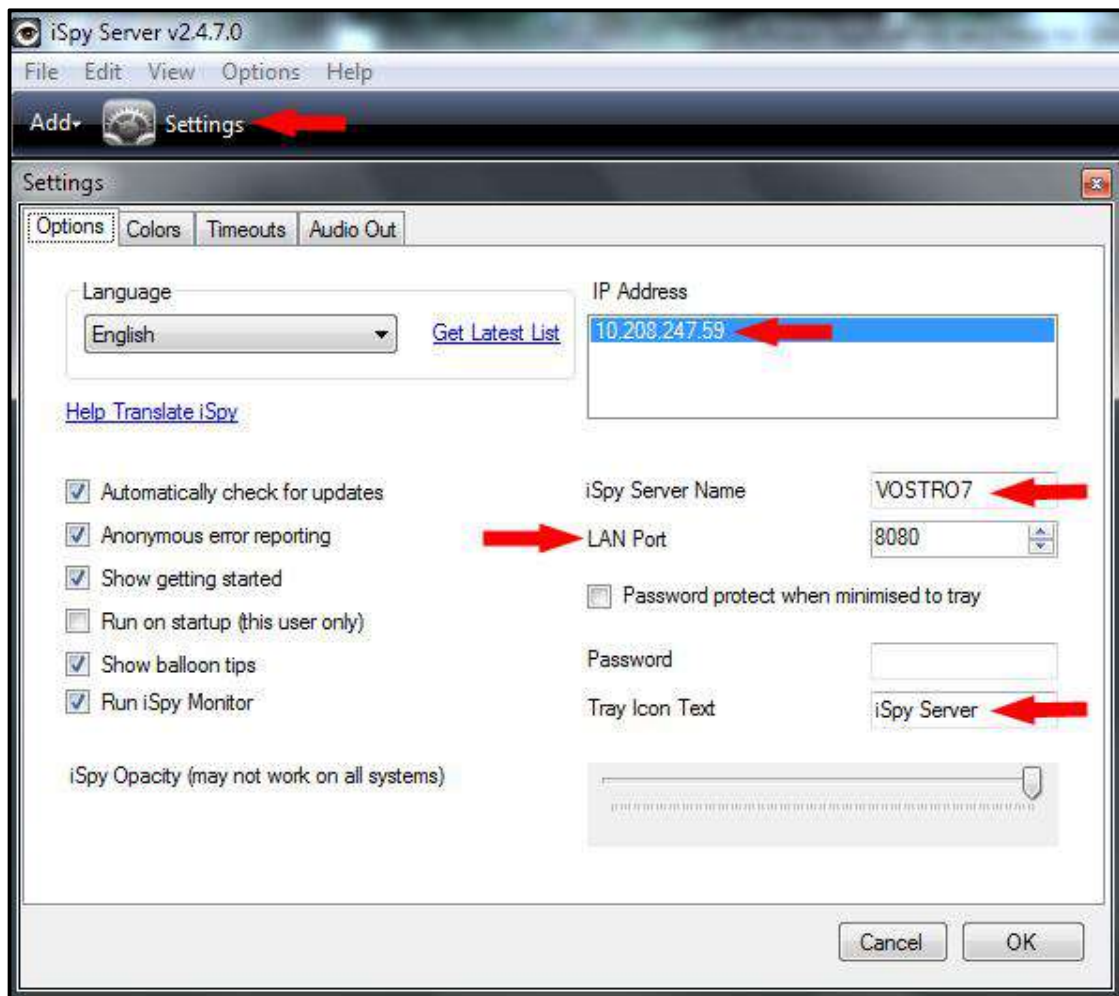
This tutorial requires two computers and properly configured MESH node routers; one computer must have an internal or external [USB] webcam and becomes the server and the other becomes the client. I won't discuss IP cameras that plug into routers or connect by wireless except to say that a remote IP camera and MESH node can operate standalone without a computer. See: <http://tinyurl.com/nhqfh99>.

Firewall Issues

Windows XP doesn't seem to differentiate between private (called Home and Work) and public (MESH and other open access) networks, but later versions really do and should normally "ask" for permission when they "think" there's some kind of security issue before allowing a program access to a network. This link explains how to configure the Windows firewall settings: <http://tinyurl.com/2933r7b>.

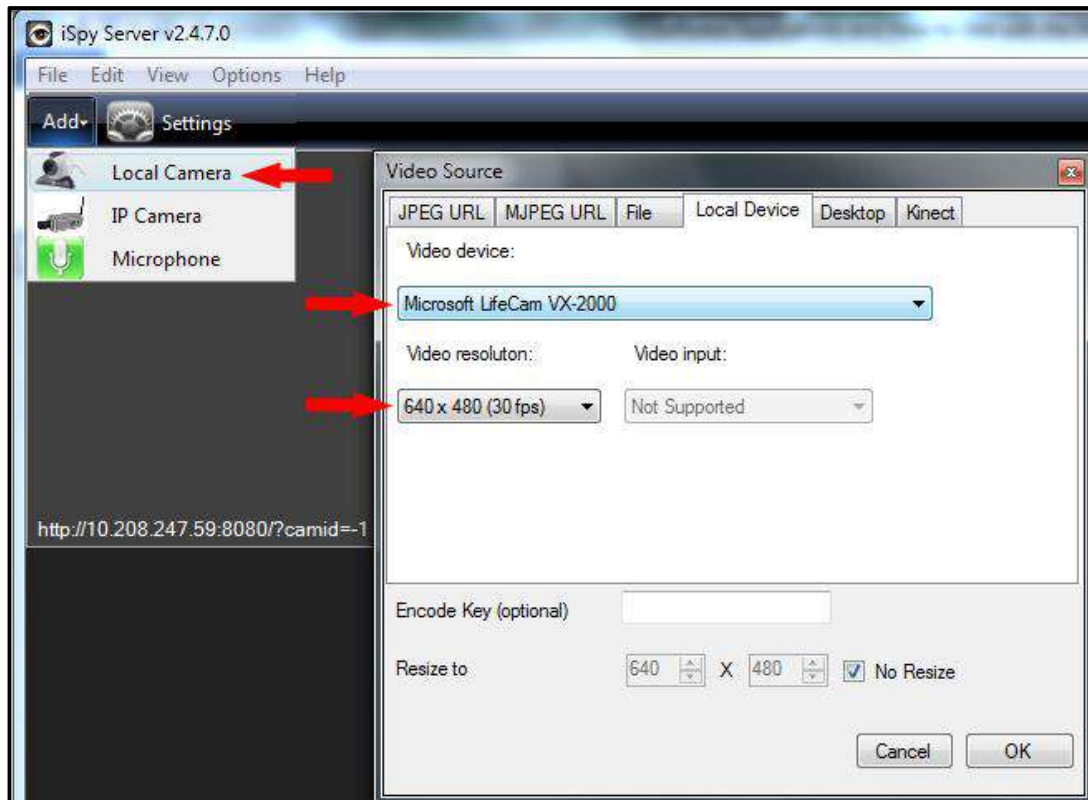
iSpy Server (Remote Host) Configuration

- Run the iSpy Server program on the remote webcam computer.
- Click the toolbar **Settings** button.
- Your MESH-NODE router **IP Address** should be displayed.
- Change the **LAN Port** value to 8080.
- Change the **Server** and **Tray Icon** names as required, but leave the other settings alone until you've read the iSpy tutorials.
- Click the **OK** button.

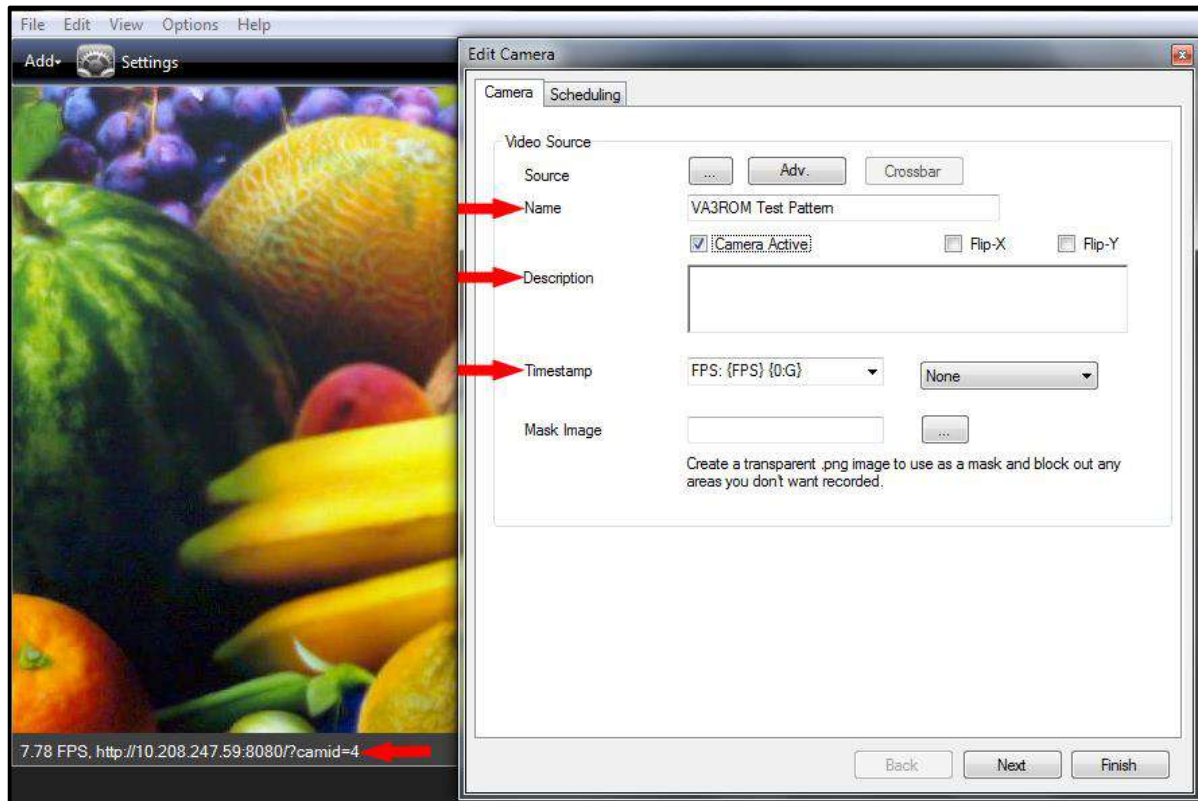


One of the Internet IP addressing systems uses TCP/HTTP port 80 while the BBHN-MESH addressing system uses port 8080 (i.e. <http://localnode:8080>).

- g. Click **Add** and select **Local Camera**.
- h. Select your webcam from the **Video device** drop-down list.
- i. Set the required **Video resolution**.
- j. Click the **OK** button.



- k. The **Edit Camera** form should appear along with the webcam video.
- l. Type in the webcam **Name** (mandatory)
- m. Type in the webcam **Description** (optional).
- n. Activate and position a **Timestamp** overlay (optional).
- o. Click the **Finish** button.



Your webcam is assigned a unique IP address: <http://10.208.247.59:8080/?camid=4> (in this example). This address is used by all iSpy [local host] programs running on the BBHN-MESH to connect to this webcam's feed.

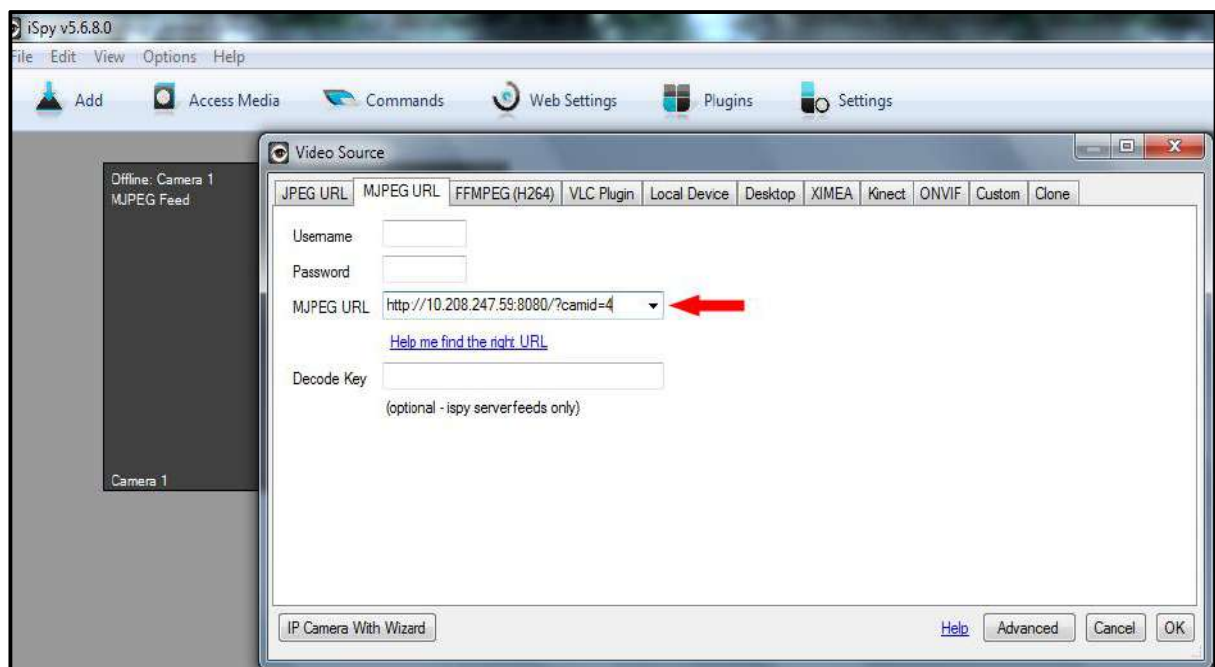
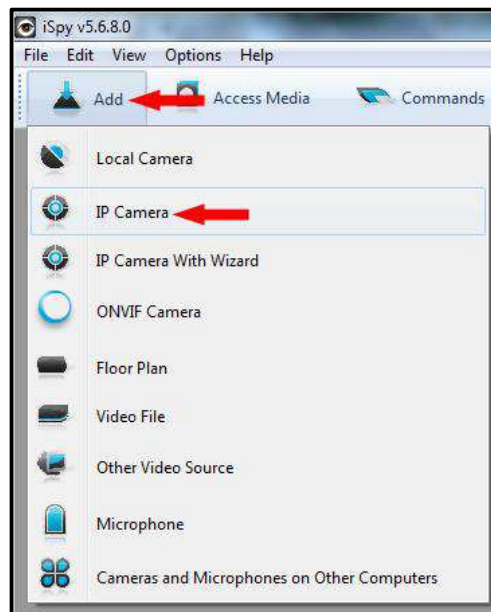
I'll let your figure out how to add microphone audio if the webcam has a built-in microphone; it's not that hard and is covered in the iSpy tutorials.

You can click and drag the video frame anywhere around the screen, and resize it if you want to fit more webcam video feeds on the screen.

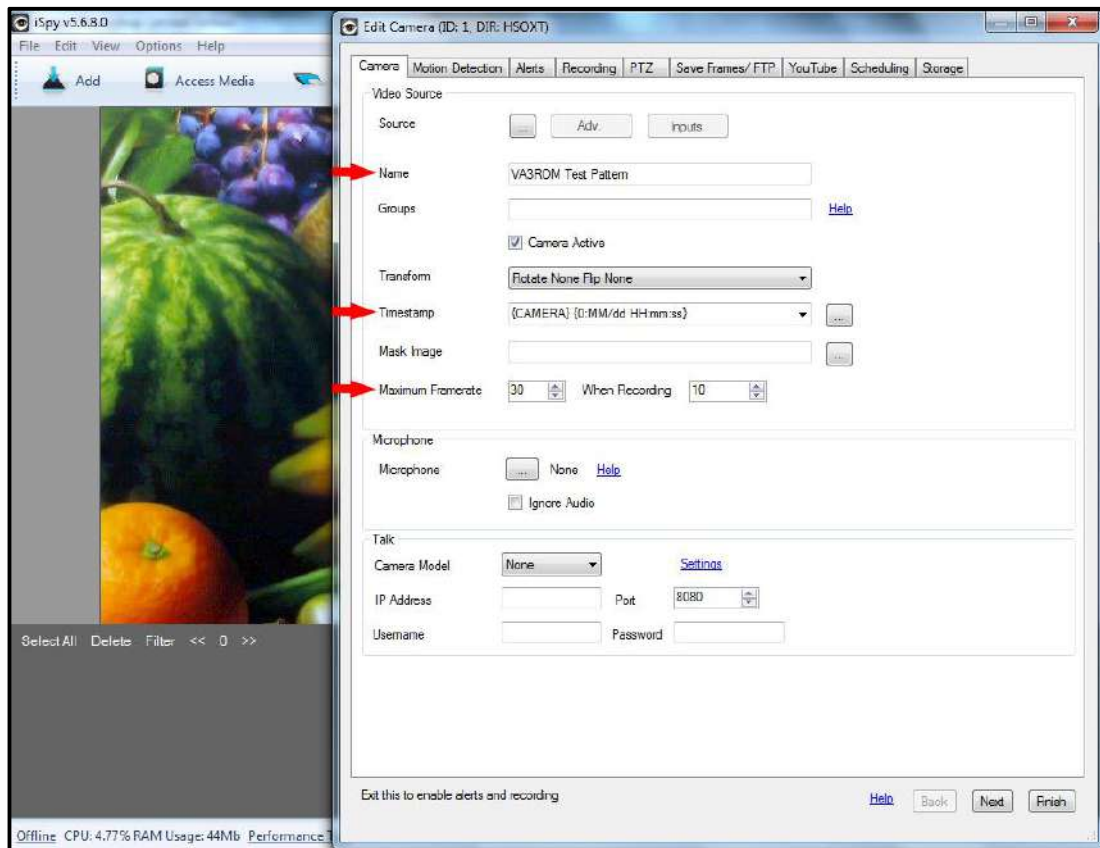
iSpy (Local Host) Configuration

We have one computer streaming video (with optional audio) into the BBHN-MESH system, but that doesn't do a lot of good if we can't grab it and see it!

- Run the iSpy program on the local host computer.
- Click the **Add** icon and select **IP Camera** from the drop-down list. *IP Camera (in this usage) means all remote webcams with an IP address.*
- In the **MJPEG URL** field, type in the remote webcam IP address.
- Click the **OK** button.

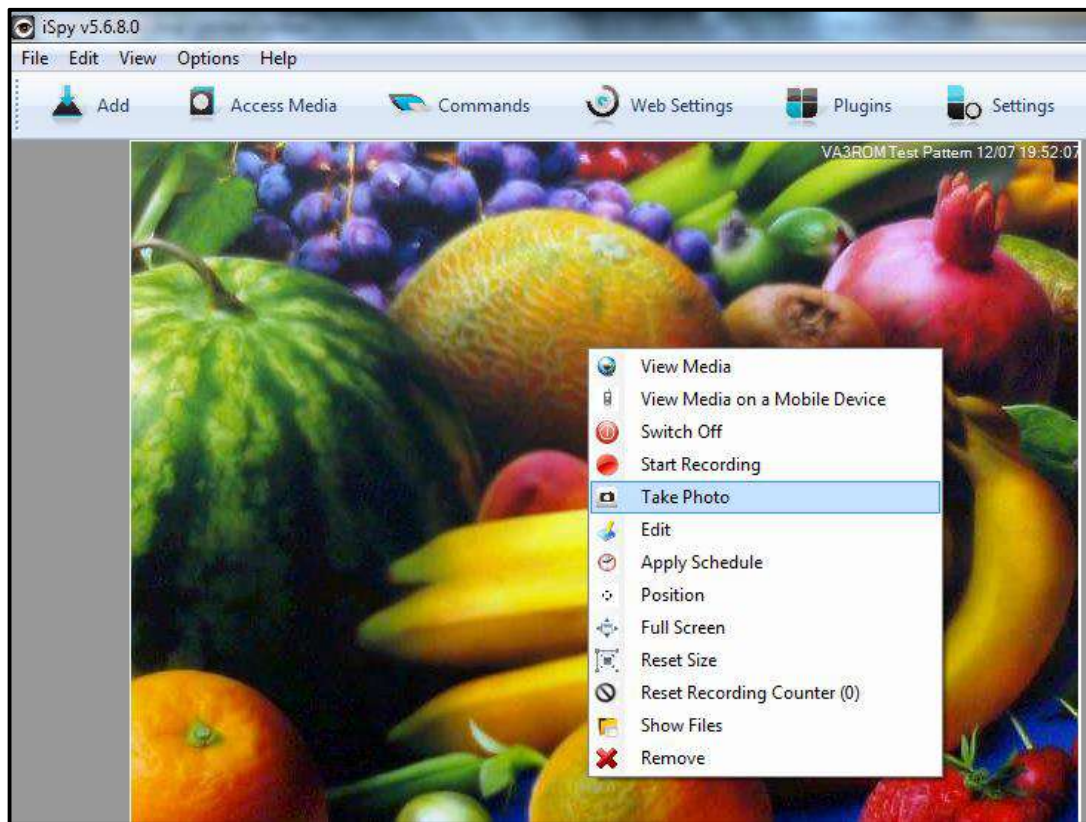


- e. The **Edit Camera** form should appear along with the remote webcam video.
- f. Change the default webcam **Name** (optional)
- g. Activate and position a **Timestamp** overlay (optional)
- h. Set the **Maximum Framerate** (as required).
- i. Click the **Finish** button.



*iSpy defaults to motion detection, alerting and recording; unless you need these features, click on the **Motion Detection**, **Alerting** and **Recording** tabs and change the settings. You can also use the control buttons (lower right-hand corner of the iSpy program window).*





A mouse right-click inside a webcam video frame pops-up a multifunction menu and you can take a photo, edit settings, etc. *You can click and drag the video frame anywhere around the screen, and resize it if you want to fit more webcam video feeds on the screen.*

My Final

This should be enough to get you started using the iSpy local and remote host programs. You will have to sit down (eventually) and go through the iSpy tutorials to get the most out of the hardware and software.

My contact email is: va3rom@gmail.com and I'll try to help if you do have any problems.—73