Integration Note

Manufacturer:	Axis
Model Number(s):	**214PTZ**
Minimum Core Module Version:	4.0 Build 1452
Comments:	AXIS IP Utility 2.21.0, Camera Firmware 4.40
Document Revision Date:	2/13/2013

OVERVIEW AND SUPPORTED FEATURES

Installing this Axis camera can be broken down into the following steps:

1. Install cameras at desired locations, and pull power and Cat5 cabling as needed. Refer to the Axis documentation for mounting details.
2. Connect the cameras electrically to the home network and configure the cameras. See **Camera Configuration** below.
3. Integrate the cameras into the **g!** system and test proper operation. This step is outlined in **g! Configuration Details**.

THE AXIS CAMERAS SUPPORT THE FOLLOWING FEATURES:

Audio In: The camera includes a microphone jack. Sound that is picked up by the camera can be played at the Viewer interface.

Motion Detection: The camera's motion detection feature is supported to trigger events in the Event Mapper. To initiate the **g!** DVR recording, for example.

Any feature not specifically noted as "supported" is not supported.

ELAN Home Systems ● 1690 Corporate Circle ● Petaluma, CA 94954 USA
tech support: 800.622.3526 • main: 760.710.0990 • sales: 877.289.3526 • email: elan@elanhomesystems.com

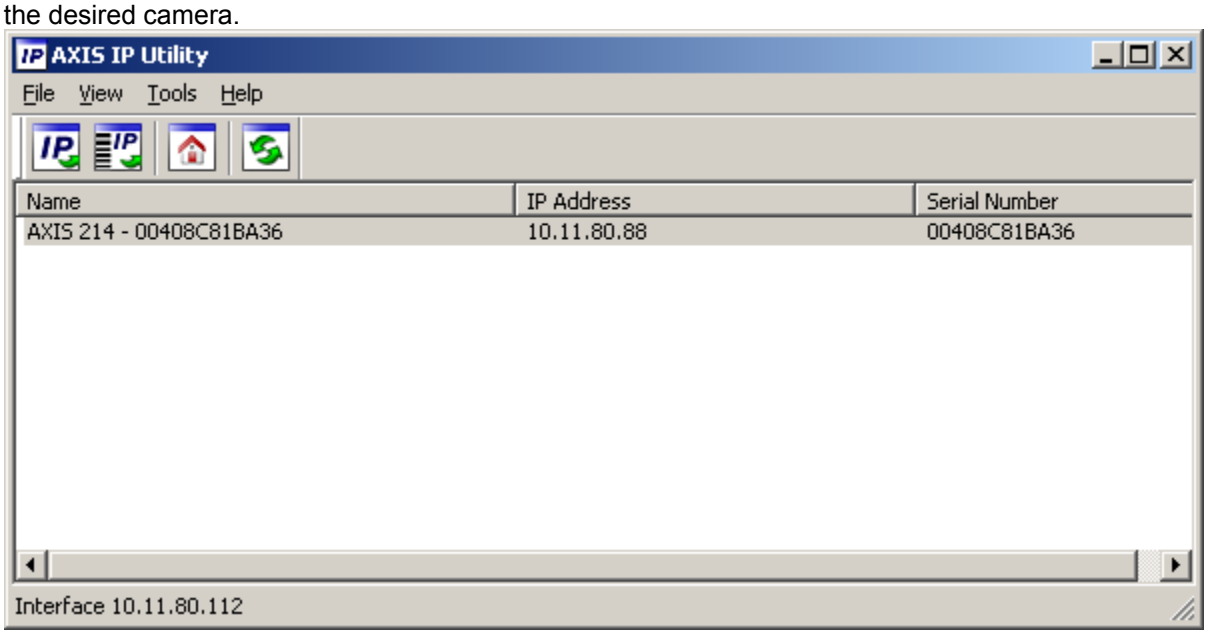
CAMERA CONFIGURATION

The camera configuration is done with software provided by Axis, which must be run from a computer with Windows also connected to the same network as the camera. Alternatively the camera can be setup by searching for it on the network and browsing to its IP to access its web server setup pages.

The software program from Axis is the **AXIS IP Utility**, and the version used for this document is shown in the header above.

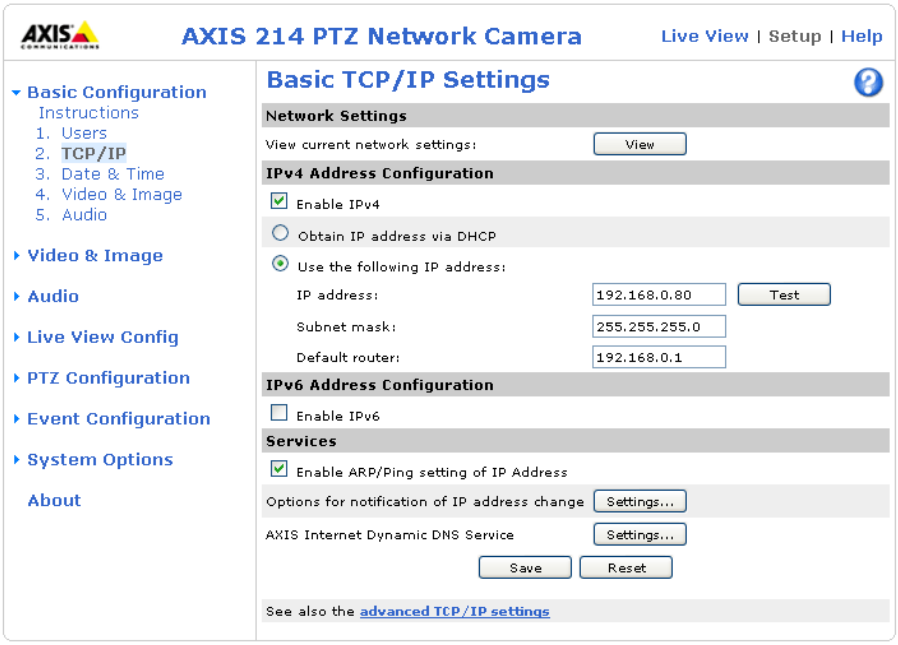
CAMERA SETTINGS

1. Start the AXIS IP Utility Setup Program.
2. Wait a moment to allow the software to find the camera: the following screen appears, then select the desired camera.

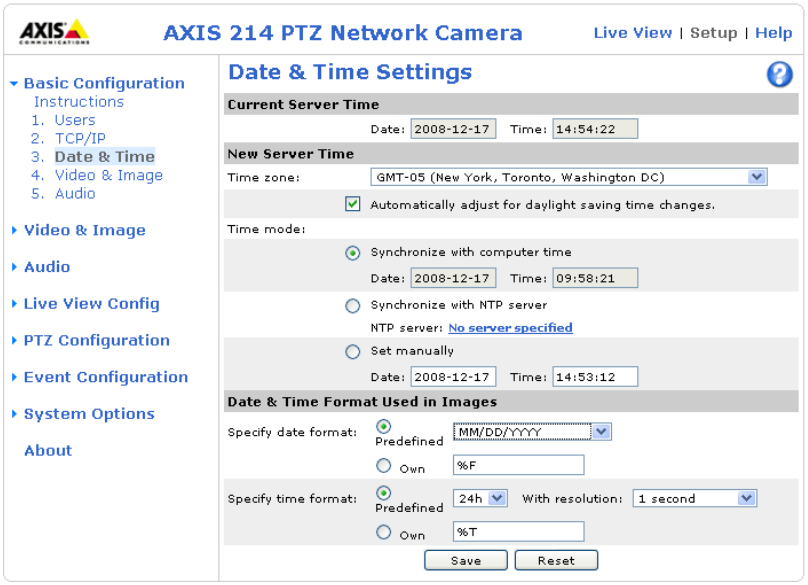


3. Click the “Home” button in the utility to get to the camera’s configuration screen. You will be prompted for a user name and password. The default user name is “root”, and the default password is “root”
4. Click the “Setup” Link in the upper right corner of the home page.

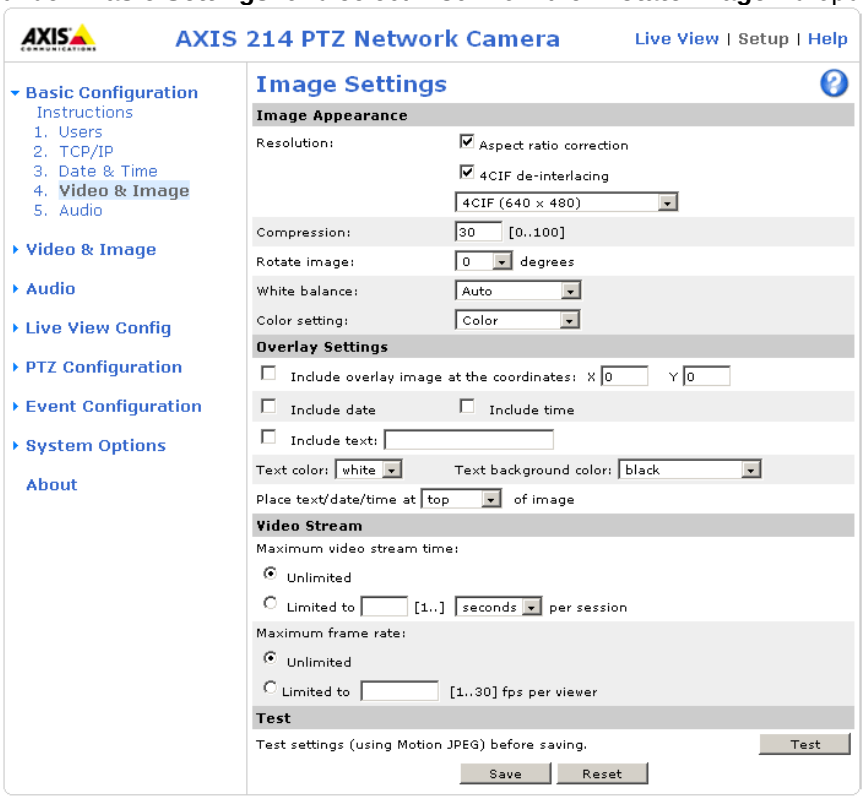
5. Select “**TCP/IP**” under “**Basic Setup**” on the left.



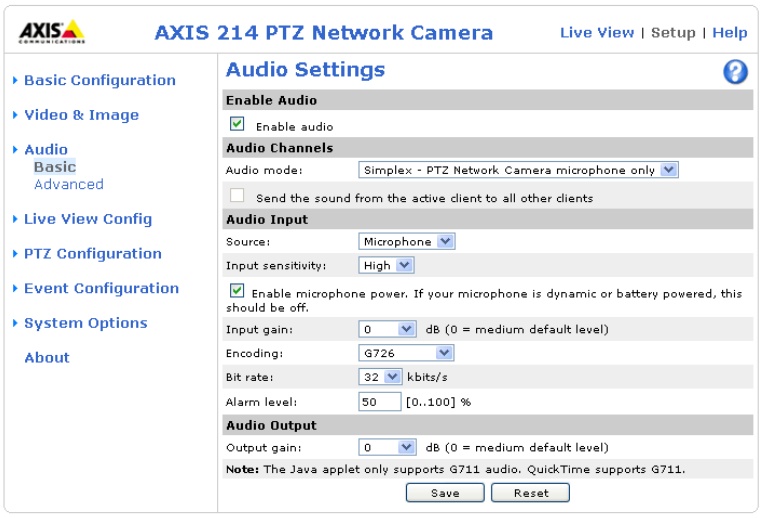
6. Set the IP address, Subnet mask, and Default router to the desired value, we suggest setting the first camera to 192.168.0.80, the second to 192.168.0.81, and so forth. See example above.
7. Click Save then Click ok to the warnings, wait 30 seconds, reboot the camera then browse to the camera at the new IP.
8. From the cameras homepage click setup.
9. Select “**Date & Time**” from the Basic Configurations menu on the left. Configure for your location.



10. The camera can be mounted to a ceiling. If this is true in your situation, select "**Video & Image**" under "**Basic Settings**" and select "**180**" from the "**Rotate Image:**" dropdown.

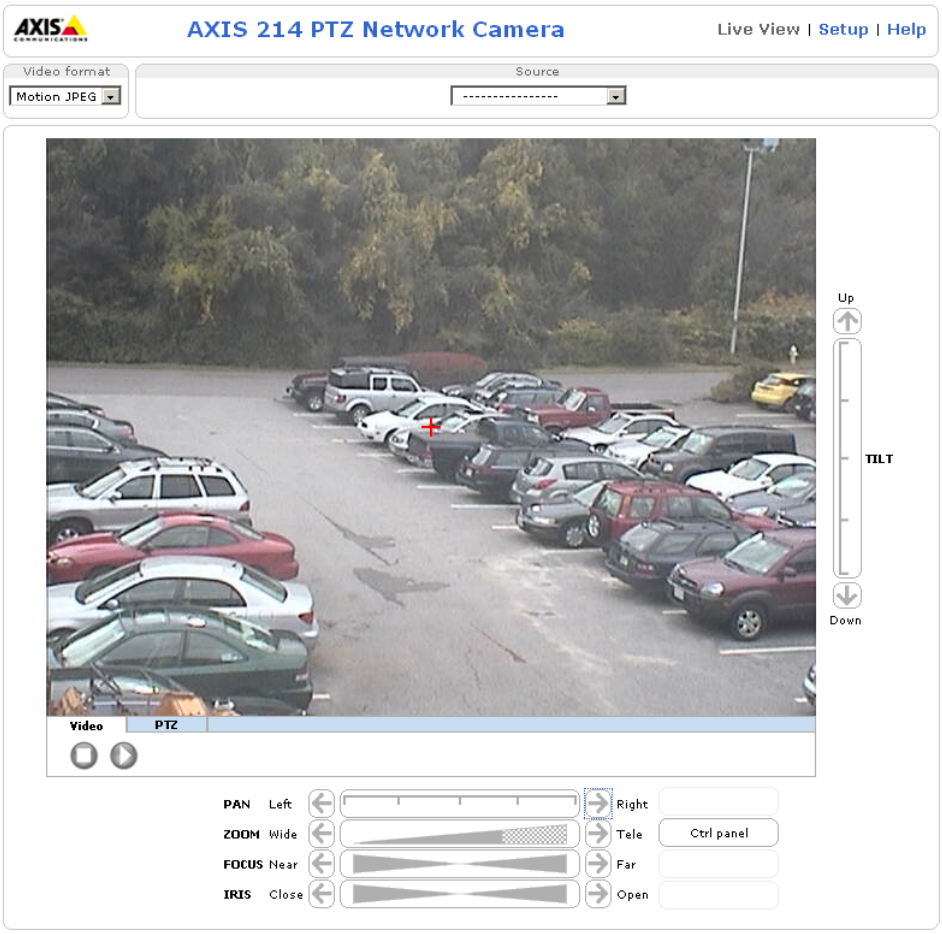


11. If you will be using a Microphone with the camera select "**Audio**" under basic settings. Check the Enable audio box, set the audio mode, encoding, and bit rate as shown below then click save.



12. Click "**Save**" and wait for a few moments: once the settings have been saved you should see a small dialog box that confirms the changes were made. **Reboot the camera** to ensure the settings take effect.

13. Start a browser and type the camera's IP Address into the address bar: you should see the following:

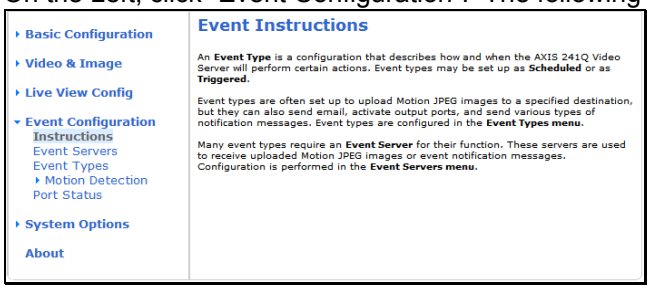


MOTION DETECTION SETUP

Motion detection setup is only required if you will be using motion detection by the camera as an event map trigger. This is most commonly used for the **g!** DVR recording.

Note: We recommend using **Internet Explorer** as your browser when setting up motion detection as we have found this process may be slow with other browsers.

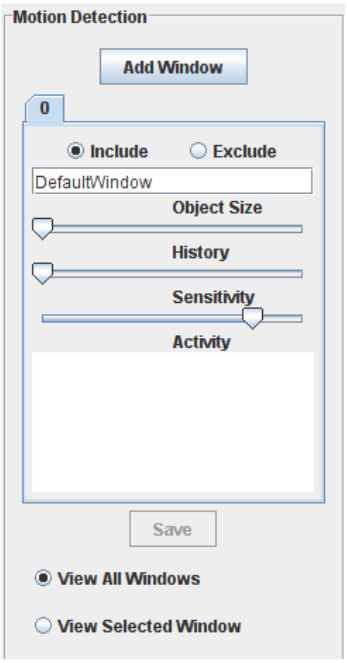
1. Access the Video Server's configuration by opening a web browser and entering the camera's IP address. Enter the root user credentials.
2. Click the "Setup" link in the upper right.
3. On the Left, click "Event Configuration". The following window will appear:



4. Select "Motion Detection" to access the following screen:

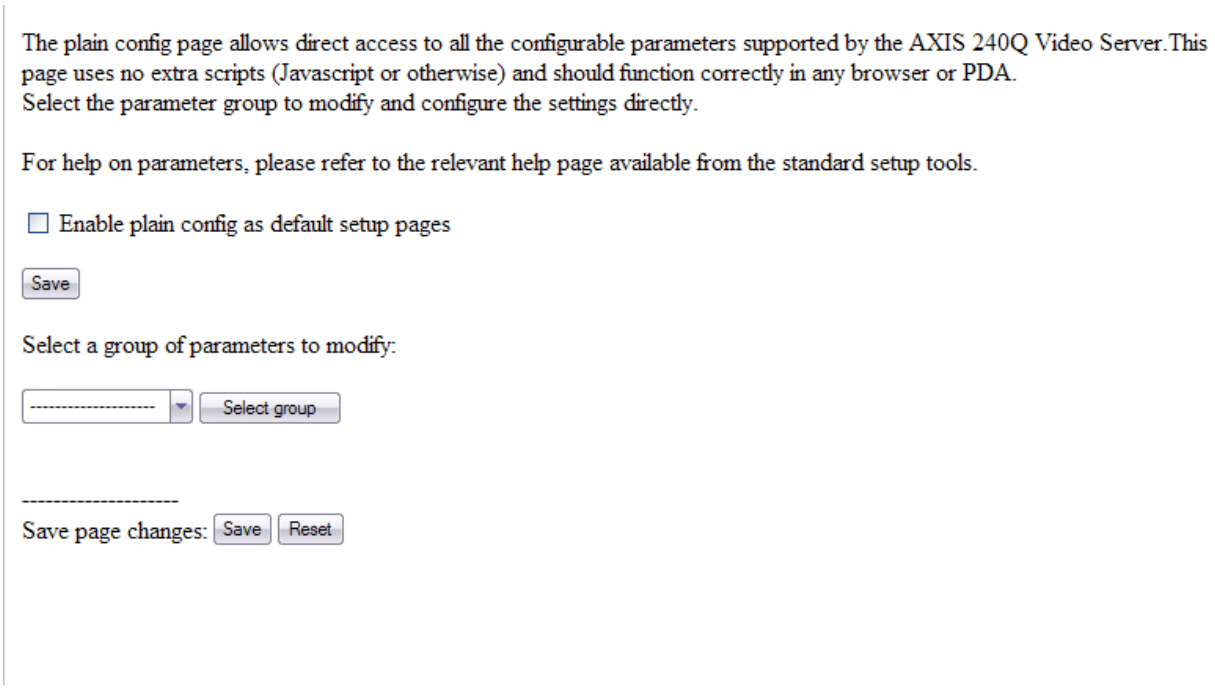
5. Click **Add Window** to add an include window to the image. For motion detection the camera will need at least one include window to define the area to look for motion. Additional include windows may be added as well as exclude windows to mask motion from items that may frequently move but are not desired to be considered motion.
6. For example: To limit the area where the server is looking for motion, decrease the size of the Default Window and drag it to center on the area of the image where relevant motion is expected. This will limit the number of false triggers due to background motion, thus conserving disk space. If you wish to capture all motion that the camera sees, this window can be left full screen. Additional windows can also be added, and the windows can be set to "Include" or "Exclude" depending on your preference. An "Exclude" window might be useful if there is a tree or flag in the image that is frequently moved by the wind, and it is not desired to trigger and event if the tree or flag moves.

7. For configuring the Motion Detection sensitivity there are three values that can be individually set for all included windows, “Object Size”, “History”, and “Sensitivity”:

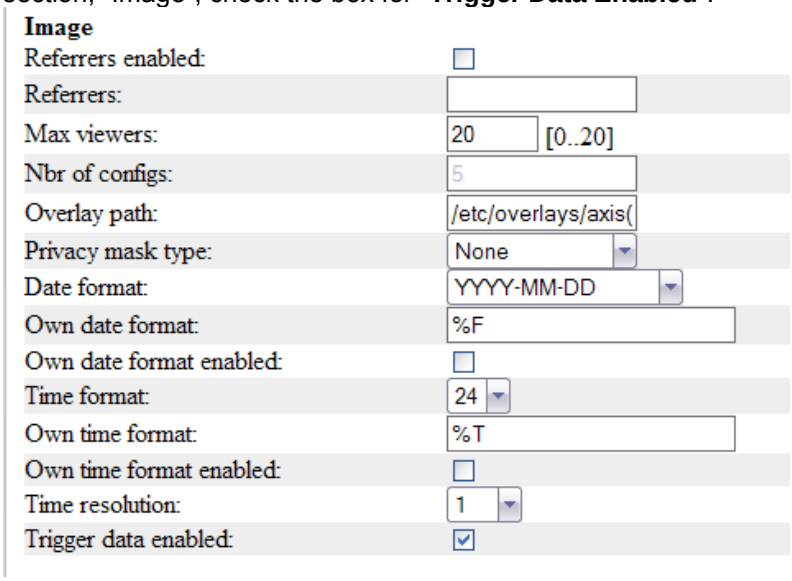


- Object Size refers to the number of pixels that need to change to trigger a motion event. The larger the object size, the less sensitive the detection. It is recommended that this be set to the minimum value possible.
- History refers to the length of time a moving object remains in the window before it is considered to be a non-moving part of the scene. A high setting will continue to trigger motion as long as the object is moving. A low setting will trigger motions when the object initially moves but then will be ignored. It is recommended that this slider be set high somewhere above 80%.
- Sensitivity refers to the difference in luminance from one frame to the next. A low setting will only trigger motion of there is a great difference in luminance, i.e. a bright object suddenly appears on a dark background. It is recommended to set this slider as high as possible. Typically greater than 90%. This setting will most likely need adjustment during initial setup to obtain the most reliable motion detection.

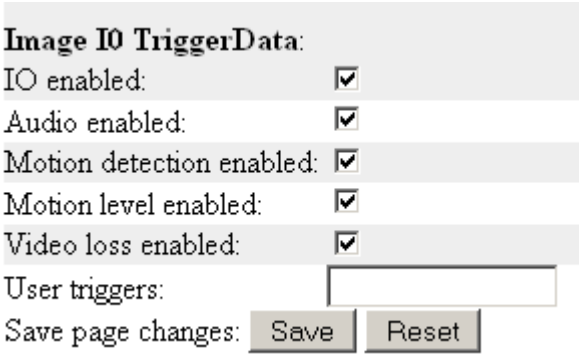
8. Select **“System Options”** on the left, then choose “**Advanced”**, then **“Plain Config”** to access the screen below:



9. Using the dropdown box, select **"Image"** as the group of parameters to modify. In the first section, "Image", check the box for "**Trigger Data Enabled**":



10. Scroll down to the entry for Image Trigger Data and place a check in the box labeled **"Motion Level Enabled":**



11. Click Save then close the browser
12. **Reboot the camera every time any motion detection adjustments are completed on the server to allow g! to reconnect and begin detecting motion.**

See the DVR Technical Note for information on setting up motion detection in the g! Software.

g! CONFIGURATION DETAILS

The following table provides settings used in the **g!** Configurator. Please refer to the *Configurator Reference Guide* for more details.

In the table below:

- o "<User Defined>", etc. Type in the desired name for the item.

Devices	Variable Name	Setting
Communication Device	**N/A (See Note 1)**	N/A (See Note 1)
Video Cameras	**Name**	<User Defined> (Default: **AXIS 214PTZ**)
	Device Type	**AXIS 214PTZ**
	Location	<User Defined> (Not Required)
	IP Address	<User Defined> (Default: **192.168.0.80**) (See Note 2)
	Port	**80**
	Login Name	<User Defined> (Default: **root**)
	Password	<User Defined> (Default: **root**)
	Default Resolution	<Select> (Default: **<Don't Change>**)
	Record Tolerance	<Select> (Default: **<0% (Keep All Frames)>**)
	Motion Detect	<Select> (Default: **Enabled**)
	Software Motion Trigger	<Select> (Default: **0%**) (See Note 3)

Notes:

1. No **Communication Device** is needed: just add **Video Cameras**.
2. By default, set the first camera to 192.168.0.80, the second to 192.168.0.81, and so on.
3. Refer to the DVR integration note for details.