Integration Note

Manufacturer:	AXIS
Model Number(s):	**M7014/M7001**
Minimum Core Module Version:	g! 6.1.34
Comments:	Axis Server Firmware: 7014 – v5.40.7.1; 7001 – v5.20.1
Document Revision Date:	2/13/2013

OVERVIEW

The Axis M7014/M7001 video servers are network devices that have analog video inputs and convert analog video to an IP stream. When integrated to the g! system the analog video images can be accessed from the viewer interface locally and or remotely.

Note: The remote access video quality will be dependant on the internet connection speed.

SUPPORTED FEATURES

- Viewing of up to four analog cameras as available per model
- Motion Detection as a event trigger
- Quad Camera view (7014 only)

Note: The Quad Camera View is a built in function of the server. Some performance problems/lockups have been seen if a quad view is custom-built from four separate video streams. As a result we recommend using the built in quad video stream if required. See **g! Configuration step 8** for details.

UNSUPPORTED FEATURES

- The serial connections on the Axis Video Server is not supported.
- Any other features not specifically mentioned as supported should be considered unsupported.

Any feature not specifically noted as “supported” is not supported.

INSTALLATION OVERVIEW

Installing the Video Server can be broken down into the following steps:

1. Install the Video Server at the desired location, and pull power, Cat5 and coax video cabling as needed.
2. Connect the Video Server electrically to the cameras and the home network and configure the Video Server. See **Video Server Configuration**.
3. Integrate the cameras into the **g! system** and test proper operation. This step is outlined in **g! Configuration Details**.

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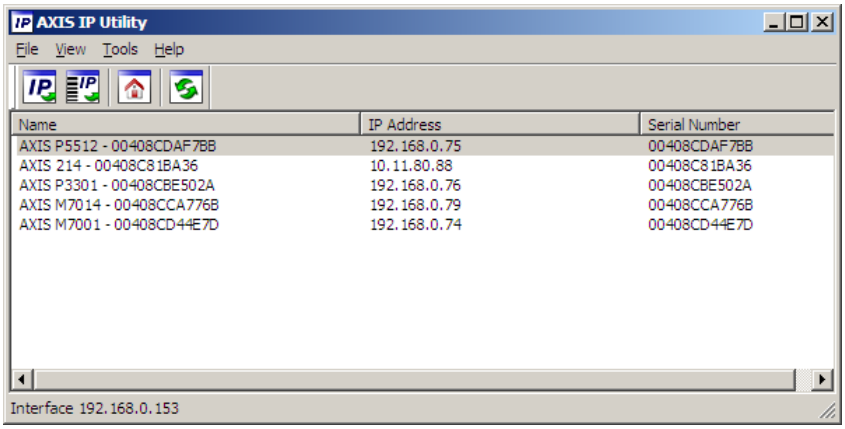
VIDEO SERVER CONFIGURATION

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.

VIDEO SERVER CD CONFIGURATION

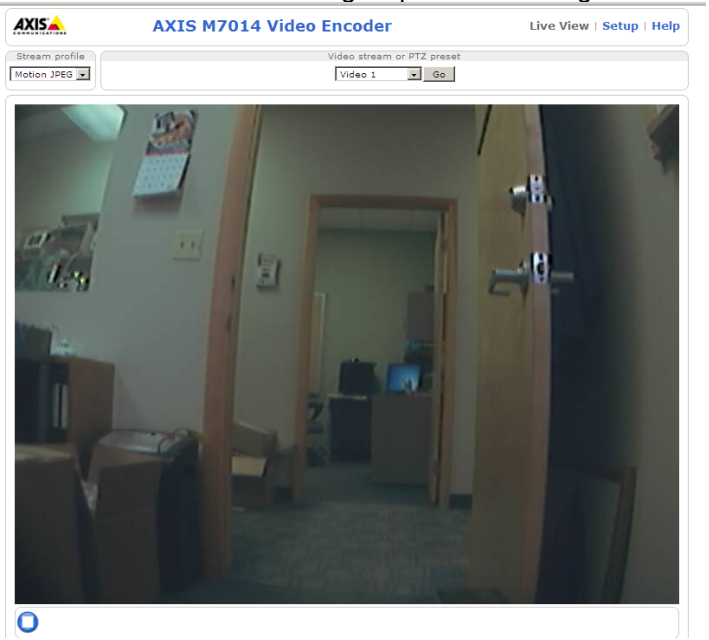
1. Insert the CD included with the video server into a PC connected to the same network as the server, it may start automatically and open a web page.
2. Click the “Install Product” link.
3. Click the “Axis IP Utility” link. The IP Utility Window will open and display any Video Servers on the local network.



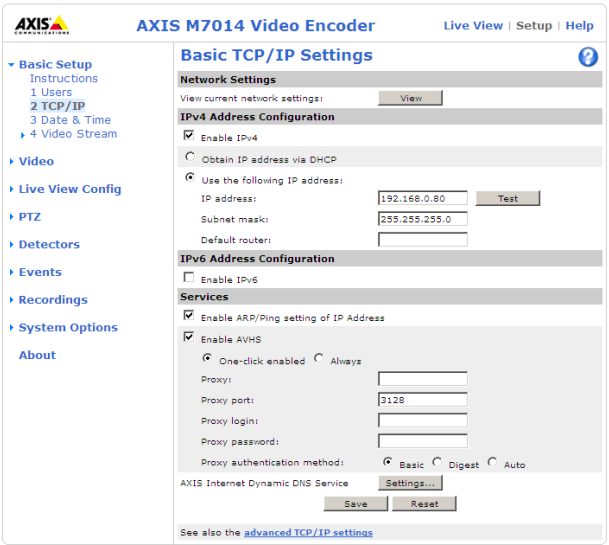
4. Find the serial number of the device you wish to configure and highlight it, then click the “Assign new IP address to selected device” button- 
5. In the “Assign New IP Address” window, give the unit a unique static IP address on your network.
6. Click the “Display device home page” button and proceed as above to set the user name and password.

VIDEO SERVER BROWSER CONFIGURATION

1. Connect the Video Server Ethernet port the network and power up the server.
2. Start a browser and bring up the video server interface by typing in the IP Address- you should see a screen similar to the one below. The first time you log in to the Video Server, you will be prompted to set a password for the default administrative user, “root”. Remember this password, it will be needed in the following steps to allow the g! software to connect to the Server.

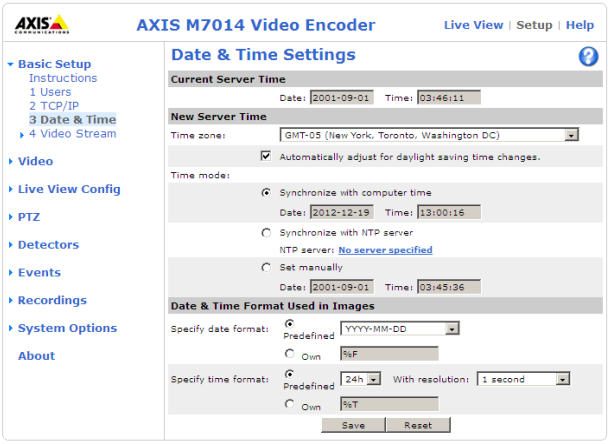


3. Click **Setup** at the top to bring up the setup window. Click **TCP/IP** to access the IP address assignment window as shown in the window below.



4. Select the radio button for “Use the following IP Address”. Assign the Axis a static IP address on your network. Elan reccomends using 192.168.0.80 for the first Axis server, 192.168.0.81 for the second, and so on.
5. Click **Save** then Click ok to the warnings, wait 30 seconds, reboot the camera then browse to the camera at the new IP.

6. From the home page click **Setup** then select "**Date & Time**" from the Basic Configurations menu on the left. Configure for your location then click **Save**.



7. **Reboot the camera** to ensure the settings take effect.

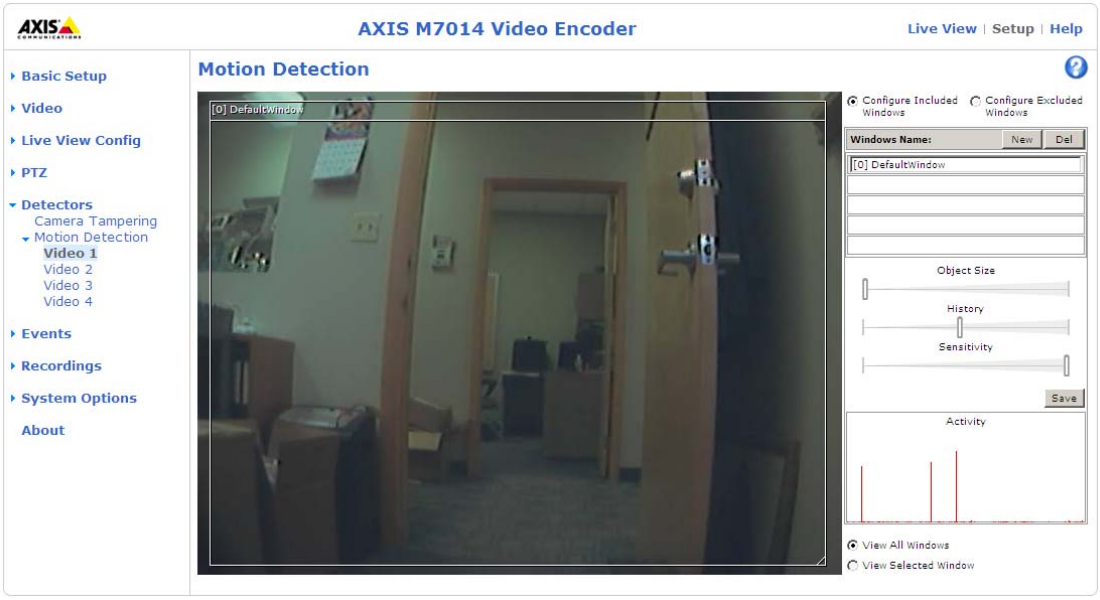
Start a browser and type the camera's IP Address into the address bar, confirm the settings were saved.

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, but could be used in other event maps.

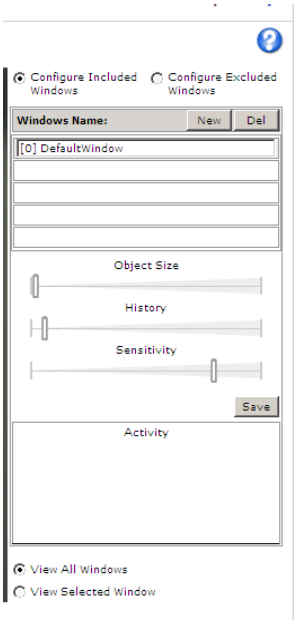
Note: We recommend using **Internet Explorer** as your browser when setting up motion detection as we have found this process may be slow with other browsers.

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.
    - For the 7014: On the Left, click "Detectors", then select "Motion Detection"
    - For the 7001: On the Left, click "Events", then select "Motion Detection"
    - The following screen is displayed:



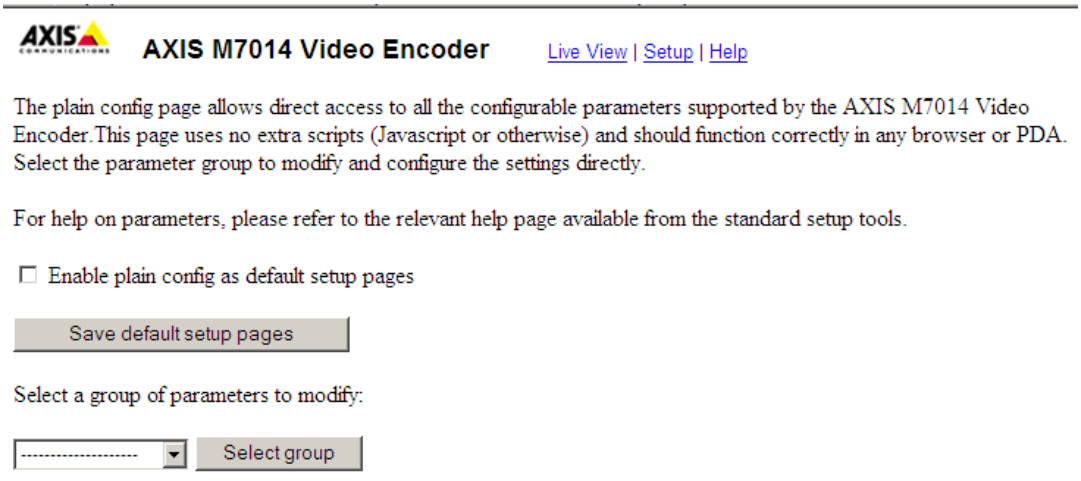
3. Select the camera you wish to set up from the menu on the left. Note: all feeds being will need to be configured for Motion Detection.
4. Click **NEW** to add an include window to the image. For motion detection the camera will need at least one include window to define the area to look for motion. 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.

5. 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.
6. For configuring the Motion Detection sensitivity there are three values that can be individually set for all included windows, “Object Size”, “History”, and “Sensitivity”:

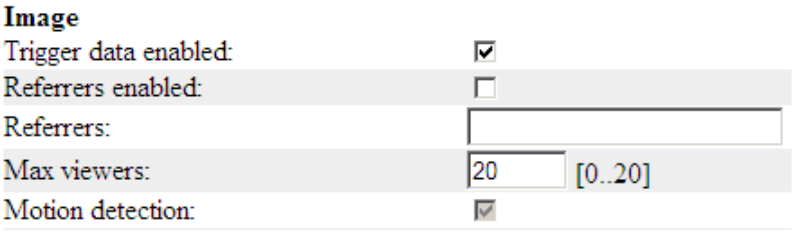


- Object Size refers to the number of pixels that need to change to trigger a motion event. The larger the object size, the less sensitive the detection. It is recommended that this be set to the minimum value possible.
- History refers to the length of time a moving object remains in the window before 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.

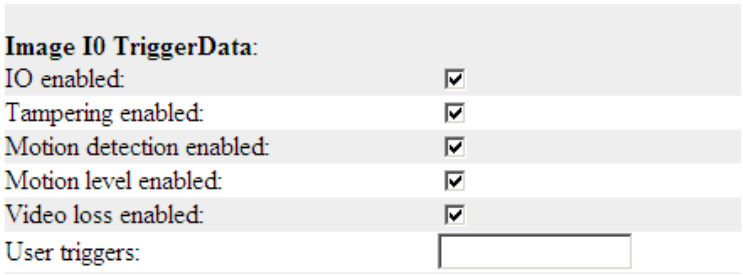
7. Select **“System Options”** on the left, then choose “**Advanced”**, then **“Plain Config”**:



8. 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**":



9. Scroll down to the entry for each port (I0, I1, I2, etc.) and find the entry labeled "**Ix Trigger Data"** (Where "x" is the specific port number) and place a check in the box labeled **"Motion Level Enabled":**



Note: The port numbering begins at 0 rather than 1. Thus, camera 1 is I0, Camera 2 is I1, etc.

10. Repeat step 10 for the other feeds for the 7014.
11. Close the browser and **reboot the server every time any motion detection adjustments are completed on the server to allow g! to reconnect and detect 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:

- "<Select>" Select the appropriate item from the list (or drop-down) in the Configurator.
- "<User Defined>", etc. Type in the desired name for the item.
- "<Auto Detect>", etc. The system will auto detect this variable.

Devices	Variable Name	Setting	Comments
Communication Device	**N/A (See Note 1)**	N/A (**See Note 1**)	
Video Cameras/Sources	**Name**	<User Defined>	
	Device Type	**Axis MODEL Port**	Select appropriate MODEL
	IP Address	<User Defined> (Default: **192.168.0.80**) (See Note 2)	
	Port	**80**	Typically left at 80. Cameras do not need to be set to different listening ports for g!
	Settings	<Select> (Default: <1>)	Choose desired port number or quad view for 4 port servers
	UserName	<User Defined> (Default: **root**)	
	Password	<User Defined> (Default: **root**)	
	Enable DVR	<Select> (Default:<**No**>)	Set to YES to enable the built in DVR function. See the DVR Integration Note for full details.
	Flip Image 180	<Select> (Default: <**No**>)	Set to YES if camera is inverted.
	Hide Resolution Control	<Select> (Default: <**No**>)	Set to YES to hide the Resolution control buttons from the Viewer.
	Hide Full Screen Control	<Select> (Default: <**No**>)	Set to YES to hide the Full Screen button from the Viewer.
	Default Resolution	<Select> (Default: <**Auto**>)	Set to desired Default Resolution: the camera will always load at this setting when viewed.
	Record Resolution	<Select> (Default: <**Don't Change**>)	Don't Change will default to last active resolution, or set a specific resolution for recording.
	Record Mode	<Select> (Default: **Auto (Medium Sensitivty)**)	Select the desired sensitivity level for the Auto motion mode, or choose fixed value.
	Record Threshold	<Select> (Default: Disabled)	Record Mode must be set to "Fixed Threshold" to enable. Select the desired motion %
	Event-Map Motion Trigger	<Select> (Default: Disabled)	Set to enable Motion Detection as a Event Map trigger. This is not required for typical DVR function, and is only needed if you wish to use the Motion % as a Event trigger.
	Trigger Value	<Select> (Default: **50%**)	Set the level for the Event Map motion detection trigger. Lower is more sensitive.
Notes:			
1. No Communication Device is needed: just add Video Ports.			
2. By default, set the first IP Video device is set to 192.168.0.80, the second to 192.168.0.81, and so on.			

COMMON MISTAKES:

1. Failure to configure the motion detection properly. The settings for motion detection need to be configured as above for motion detection to function correctly.