Integration Note

Manufacturer:	VIVOTEK
Model Number(s):	**IP Video Cameras (See models list below)**
Minimum Core Module Version:	g! 6.1
Document Revision Date:	2/13/2013

OVERVIEW AND SUPPORTED FEATURES

THE VIVOTEK CAMERA DRIVER SUPPORTS THE FOLLOWING FEATURES:

Video Stream: View IP Camera feeds in the **g!** system using MJPEG feeds.

Pan / Tilt / Zoom: Some Vivotek cameras can be turned to see various locations and zoom in and out. This feature is supported in the driver, and is configurable using a dropdown menu.

IMPORTANT: Only Optical zoom is supported. Digital Zoom essentially crops the Video Stream in the browser without changing the actual video feed, and is not supported.

Motion Detection: Vivotek cameras support motion detection to trigger events in the **g!** system. This feature is supported in the driver, and is configurable using a dropdown menu.

Image Flip: The camera can be mounted with its base up or down, and the image will appear normal. Simply set the "flip 180" option in the **g!** Configurator.

THESE CAMERAS DO NOT SUPPORT THE FOLLOWING FEATURES:

Megapixel Resolution: Some models support Megapixel (HD) resolution. This is not supported by **g!** at this time, and only the cameras lower resolutions will be usable in the Viewer. For this reason some models may be compatible with **g!** but ultimately not a good investment. In addition, some Vivotek cameras exclusively support HD resolutions and are not compatible with **g!** at all.

Presets: Presets or saved pan/tilt/zoom positions are not available on Vivotek cameras in the **g!** system.

Input/Output: Some cameras include an I/O connector for sensor inputs and alarm outputs. These are not supported by the **g!** system at this time.

Audio: Audio is not available in the **g!** system from VIVOTEK cameras as this functionality is disabled in MJPEG mode on the VIVOTEK itself.

Authentication/HTTPS: Secure authentication for camera access (username/password) is not compatible for use with Vivotek cameras in the **g!** system.

Other Features: Any other features not specifically mentioned as supported above are not supported.

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

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INSTALLATION OVERVIEW

Installing the Vivotek 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 Vivotek documentation for mounting details.
2. Connect the cameras electrically to the home network and configure the cameras. See **Camera Configuration**.
3. Integrate the cameras into the **g!** system and test proper operation. This step is outlined in **g! Configuration Details**.

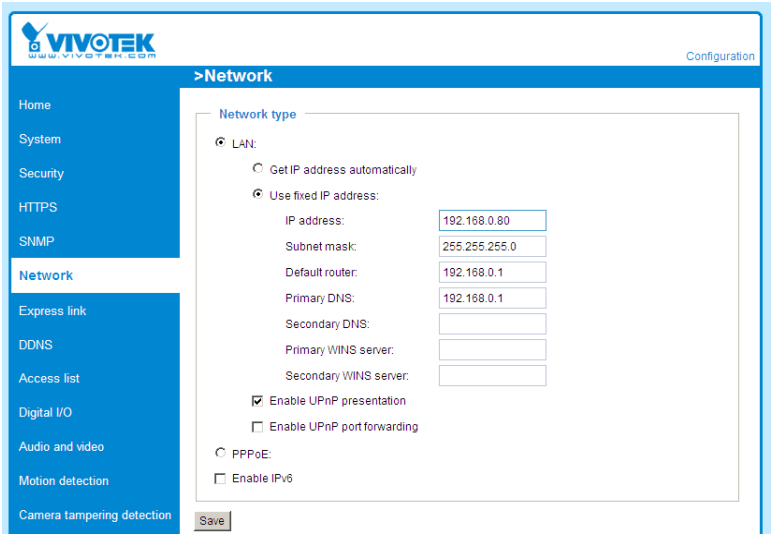
CAMERA CONFIGURATION

Note: The Vivotek web Interface for your particular model of camera may vary somewhat from the example screenshots below.

1. Connect the Video Camera to the network.
2. Use the Vivotek Installation Wizard or **g!**Tools Network Manager to locate the device on the network. See Vivotek documentation for details on using the Installation Wizard as a network finder.
3. Start a browser and bring up the video camera interface by typing in the IP Address- you should see a screen similar to the one below.

4. Click the **Configuration** link  at the left to open the device settings.

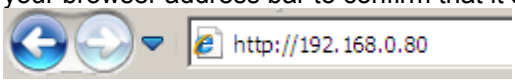
5. Click **Network** to access the IP address assignment window as shown in the window below.



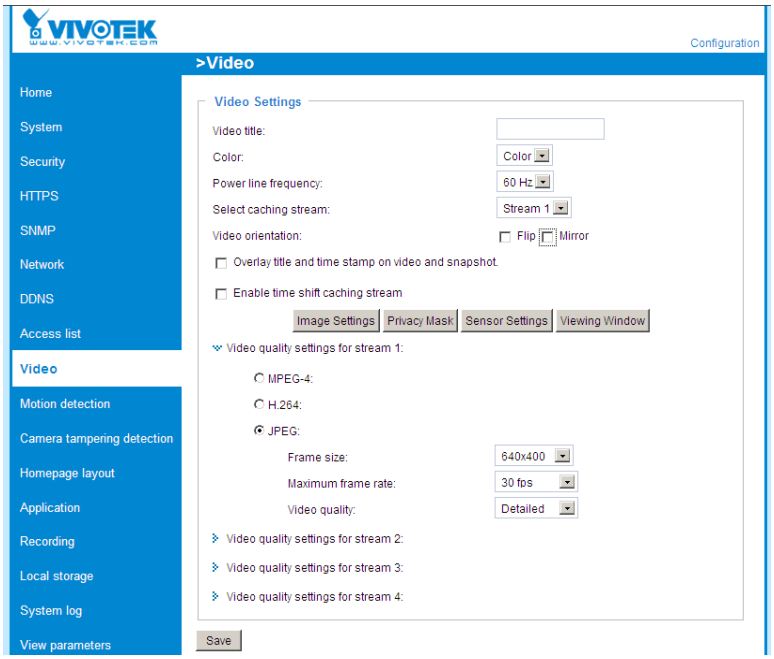
   a. Select the radio button for "LAN". Assign the Vivotek a static IP address on your network. Elan reccomends using 192.168.0.80 for the first Vivotek camera, 192.168.0.81 for the second, and so on.

   b. Click the "Save" button and wait for the unit will restart the video camera for the IP configuration to take effect.

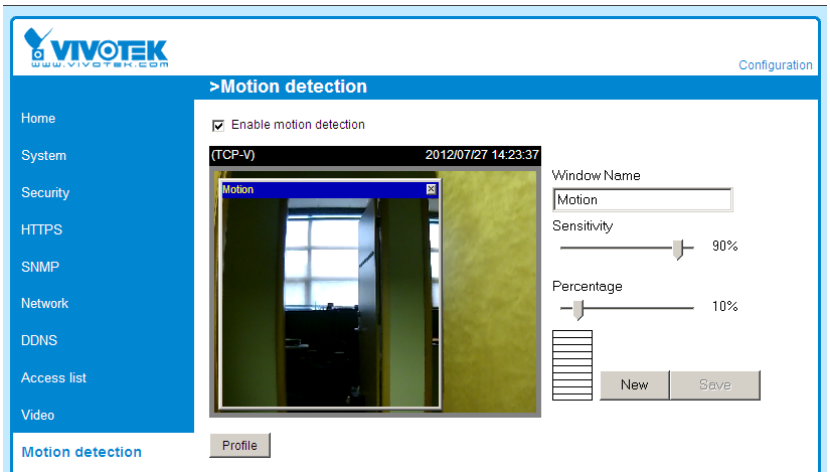
   c. The webpage should automatically refresh to the new IP address. Take note of the IP in your browser address bar to confirm that it switched correctly.



6. Enter **Configuration** and open the **Video** section. (Note: you may need to enter Advanced or Media to see these settings depending on model). Change the **Video Settings** to **JPEG** as shown below—note you need to click to expand the Video Quality Settings for **stream 1** to alter the settings. *Only the Stream 1 settings need to be changed.*



7. **Enable Motion Detection** and create a **Motion Detection Window** on all desired feeds by entering the **Configuration>Motion Detection** section.
    a. **Check** the **Enable Motion Detection** box.
    b. **Click** the **New** button to make a new Motion Detection area window.
    c. **Drag** the edges of the window to fill the desired part of the frame to look for motion activity. Only areas contained within the window will be tested for motion, so ensure to draw the window to include areas of importance like a doorway but avoid areas that will create motion "noise" like a ceiling fan or tree.
    d. Set the **Sensitivity** and **Percentage sliders**. Typically the recommend settings are Sensitivity 90 and Percentage 10, but these may need to be adjusted for your install. See Vivotek documentation for full details.
        i. 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 to 90%
        ii. Percentage refers to the percent of pixels in the selected area that need to change to register motion. Lower numbers allow smaller objects to be detected. This slider should usually be set to 10%.
    e. **Name** the window and then **Save** settings.



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 when connecting to a camera. Please refer to the *Configurator Reference Guide* for more details.

In the table below:

- o "<Select>" Select the appropriate item from the list (or drop-down) in the Configurator.
- o "<User Defined>", etc. Type in the desired name for the item.
- o "<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	**Name**	<User Defined>	
	Device Type	**Vivotek Network Camera 7xxx/8xxx**	
	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!
See Note 3	**Enable DVR**	<Select> (Default:**<No>**)	Set to YES to enable the built in DVR function. See the DVR Integration Note for full details.
	Low-Res Panning	<Select> (Default: **<No>**)	Set to YES to have camera set the resolution to LOW prior to any camera Panning.
	Has Pan/Tilt	<Select> (Default:**<No>**)	Set to YES if Camera has Pan/Tilt functionality.
	Has Zoom	<Select> (Default:**<No>**)	Set to YES if Camera has Optical Zoom.
	Has Presets	<Select> (Default:**<No>**)	Set to NO. Vivotek cams do not support Presets.
	Has Audio	<Select> (Default:**<No>**)	Set to NO. Vivotek cams do not support audio.
	Has Motion Detect	<Select> (Default:**<No>**)	Set to YES if the camera supports Motion Detection.
	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.
	Goto Preset When Idle	<Select> (Default: **<None>**)	Choose the desired preset to have the camera return to when it is not open in any Viewer.
	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 Cameras.			
2. By default, set the first camera to 192.168.0.80, the second to 192.168.0.81, and so on.			
3. Not all options may be available, as some options only open up based on the selection of other options.			

VIVOTEK CAMERA MODELS/FEATURES:

Use this chart to determine the appropriate settings for your camera:

Model	Type	Feature	Pan/Tilt	Zoom	Motion	Settings	
FD7131	Fixed	PoE	No	No	Yes	480/240	
FD7132	Fixed	PoE Day/Night	No	No	Yes	480/240	
FD8133	Fixed	Wired	No	No	Yes	**400/200**	
FD8134	Fixed	PoE	No	No	Yes	**400/200**	
FD8135H	Fixed	PoE 1MP WDR	No	No	Yes	480/240	*
FD8136	Fixed	PoE 1MP Mini-Dome	No	No	Yes	480/240	*
FD8161	Fixed	2MP Day/Night	No	No	Yes	480/240	*
FD8162	Fixed	2MP HD	No	No	Yes	480/240	*
FD8361	Fixed	2MP Day/Night	No	No	Yes	480/240	*
FD8361L	Fixed	2MP Day/Night Vandal	No	No	Yes	480/240	*
FD8362	Fixed	PoE 2MP Vandal Outdoor WDR	No	No	Yes	480/240	*
FD8362E	Fixed	PoE 2MP Vandal Outdoor "Extreme" WDR	No	No	Yes	480/240	*
FD8372	Fixed	5MP	No	No	Yes	480/240	*
IP7130	Fixed	PoE	No	No	Yes	480/240	
IP7133	Fixed	Compact	No	No	Yes	480/240	
IP7134	Fixed	Compact WiFi	No	No	Yes	480/240	
IP7153	Fixed	PoE Day/Night	No	No	Yes	480/240	
IP7154	Fixed	Day/Night WiFi	No	No	Yes	480/240	
IP7160	Fixed	2MP PoE	No	No	Yes	480/240	*
IP7161	Fixed	2MP PoE Day/Night	No	No	Yes	480/240	*
IP7361	Fixed	2MP PoE Day/Night Outdoor	No	No	Yes	480/240	*
IP8132	Fixed	1MP Compact	No	No	Yes	480/240	*
IP8133	Fixed	PoE version of 8132	No	No	Yes	480/240	
IP8133W	Fixed	WiFi version of 8132	No	No	Yes	480/240	
IP8151	Fixed	PoE 1.3MP Day/Night WDR	No	No	Yes	480/240	*
IP8151P	Fixed	PoE 1.3MP Day/Night WDR	No	No	Yes	480/240	*
IP8161	Fixed	2MP Poe Day/Night	No	No	Yes	480/240	*
IP8162	Fixed	2MP WDR	No	No	Yes	480/240	*
IP8162P	Fixed	2MP WDR	No	No	Yes	480/240	*
IP8172	Fixed	5MP PoE	No	No	Yes	480/240	*
IP8330	Fixed	PoE Outdoor Day/Night	No	No	Yes	480/240	
IP8331	Fixed	PoE Outdoor Day/Night	No	No	Yes	480/240	
IP8332	Fixed	MP version 8330	No	No	Yes	480/240	*
IP8335H	Fixed	1MP PoE Outdoor Day/Night WDR	No	No	Yes	480/240	*
IP8361	Fixed	2MP PoE Outdoor Day/Night	No	No	Yes	480/240	*
IP8362	Fixed	2MP PoE Outdoor Vandal WDR	No	No	Yes	480/240	*
IP8372	Fixed	5MP PoE Outdoor Vandal WDR	No	No	Yes	480/240	*
MD7530	Fixed	PoE Vandal	No	No	Yes	480/240	
MD7560X	Fixed	2MP PoE Vandal	No	No	Yes	480/240	*
MD8562	Fixed	2MP PoE VandalWDR	No	No	Yes	480/240	*
PD8136	Pan Tilt	1MP PoE	Yes	No	Yes	480/240	
PT8133	Pan	1MP PoE	Yes	No	Yes	480/240	

Model	Type	Feature	Pan/Tilt	Zoom	Motion	Settings	
	Tilt						
PT8133W	Pan Tilt	WiFi PT8133	Yes	No	Yes	480/240	
PZ7111	PTZ	PoE 10x zoom	Yes	Yes	Yes	480/240	
PZ7112	PTZ	WiFi, 10x zoom	Yes	Yes	Yes	480/240	
PZ7121	PTZ	PoE 10x zoom	Yes	Yes	Yes	480/240	
PZ7122	PTZ	WiFi, 10x zoom	Yes	Yes	Yes	480/240	
PZ7131	PTZ	PoE 2.6x zoom	Yes	Yes	Yes	480/240	
PZ7132	PTZ	WiFi, 2.6x zoom	Yes	Yes	Yes	480/240	
PZ7151	PTZ	PoE, 2.6x zoom	Yes	Yes	Yes	480/240	
PZ7152	PTZ	WiFi, 2.6x zoom	Yes	Yes	Yes	480/240	
PZ8111	PTZ	PoE, 10x zoom	Yes	Yes	Yes	480/240	
PZ8111W	PTZ	WiFi, 10x zoom	Yes	Yes	Yes	480/240	
PZ8121	PTZ	PoE 10x zoom	Yes	Yes	Yes	480/240	
PZ8121W	PTZ	WiFi, 10x zoom	Yes	Yes	Yes	480/240	
SD8362E	PTZ	PoE Outdoor 28x zoom WDR	Yes	Yes	Yes	480/240	
SD73x3	PTZ	Outdoor 35x zoom WDR	Yes	Yes	Yes	480/240	

***Note:** These cameras may be integrated in **g!**, however Megapixel/HD supporting units may not be an optimal investment as the higher resolutions are not available in the **g!** system Viewer.

MODELS TESTED:

Model	FW	g! Test Version
SD8362	0105a	6.1
PT8133	0100g	6.1
FD8136	0100f	6.1
IP8133	0200a	6.1
FD8133	0104a	5.8
PZ7131	0200a	5.8

COMMON MISTAKES:

Incorrect Configurator Settings for Camera: Confirm the correct selections for settings such a pan, tilt, zoom and so on are made in Configurator. If your camera settings in Configurator do not match what your camera supports, options may not appear, or may appear and not function. Note that Audio and Preset Options appear in Configurator, but are not supported and should be left disabled.

Incorrect Settings selection: The 400/200 or 480/240 setting must be set correctly for your camera in Configurator, or Resolution changes from the **g!** system will not be effective.