



## Integration Note

Manufacturer:	VIVOTEK
Model Number(s):	VS2403
Minimum Core Module Version:	4.0 Build 1310
Comments:	Vivotek Server Firmware VS2403-VVTK-0100p
Document Revision Date:	2/13/2013

### OVERVIEW

The Vivotek VS2403 video server is a network device that has four analog video inputs. 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
- Motion Detection

### UNSUPPORTED FEATURES

- The DB-9 connection on the Vivotek Video Server is not supported.
- The Input/Output terminal strip is also not supported.

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

### VIDEO SERVER BROWSER CONFIGURATION

1. Connect the Video Server Ethernet port the network.
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.

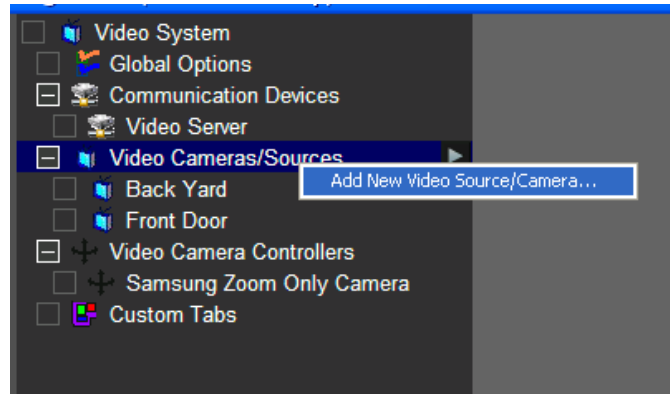


3. Click the **Setup** button  at the left to bring up the setup window. Click **Network** to access the IP address assignment window as shown in the window below.

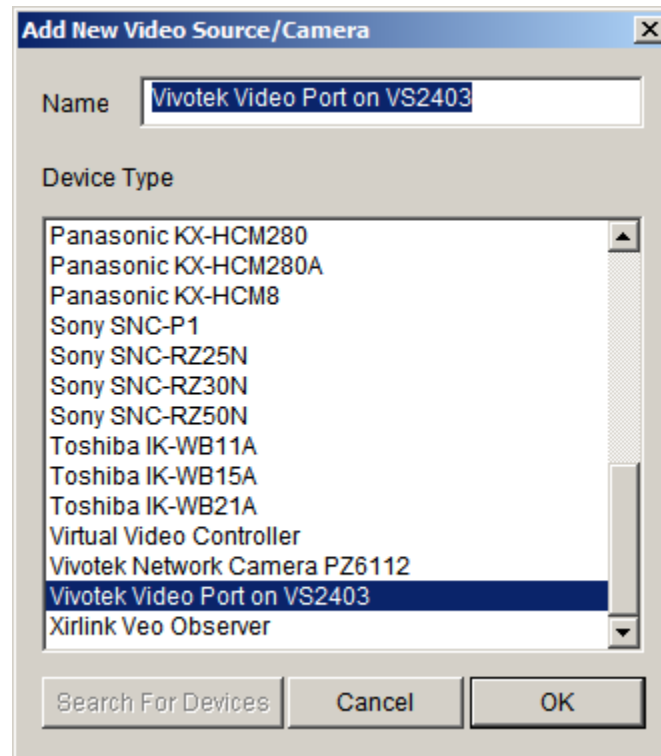
4. Select the radio button for “LAN”. Assign the Vivotek a static IP address on your network. **g!** recommends using 192.168.0.80 for the first Vivotek server, 192.168.0.81 for the second, and so on.
5. Click the “Save” button and cycle power to the video server for the IP configuration to take effect.
6. Browse to the video server at its new address to confirm the IP address changes.

## g! CONFIGURATION

1. In the **g!** Configurator, go to the Video tab.
2. Right click "Video Cameras/Sources" and select "Add New Video Source/Camera"



3. Select "Vivotek Video Port on VS2403" from the list provided.



4. Change the name to better reflect the source of the video stream, i.e. “Front Door Camera” or “Cable Video Feed”.

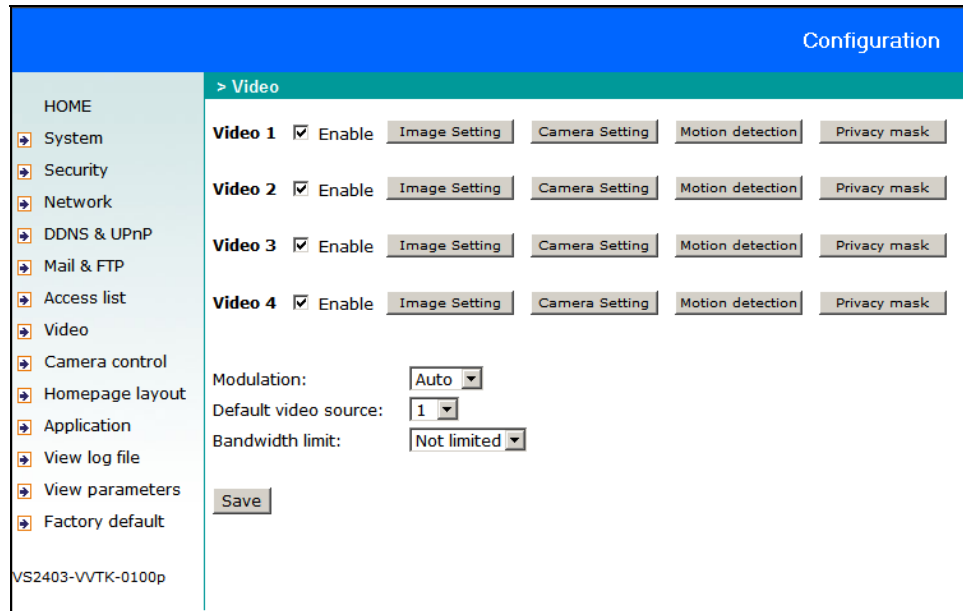
The screenshot displays a software interface for configuring a video system. On the left is a tree view with the following items: Video System, Global Options, Communication Devices, Video Server, Video Cameras/Sources, Back Yard, Front Door, Vivotek Video Port on VS2403 (selected), Video Camera Controllers, Samsung Zoom Only Camera, and Custom Tabs. The main panel on the right is titled 'Video Source/Camera : Vivotek Video Port on VS2403' and contains the following configuration fields:

Name	Vivotek Video Port on VS2403
System #	21576
Device Type	Vivotek Video Port on VS2403
IP Address	10 . 11 . 80 . 0
Port	80
Settings	Port #1
Enable DVR	No
Flip Image 180	No
Hide Resolution Control	No
Hide Full Screen Control	No
Default Resolution	Auto
Record Resolution	< DONT CHANGE >
Record Mode	Auto (Medium Sensitivity)
Record Threshold	0%
Event-Map Motion Trigger	Disabled
Trigger Value	50%

5. Set the IP address to the address of the Video Server.
6. In the “Settings” dropdown, select the port on the server into which the video source is connected.
7. Repeat for each device connected to the server.

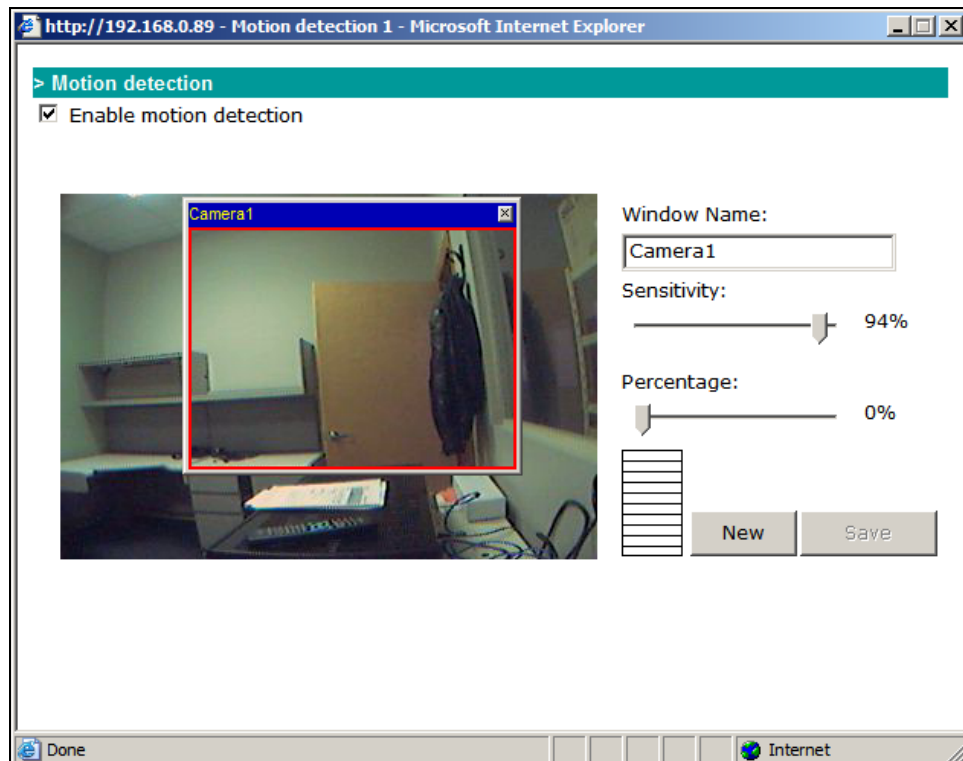
## MOTION DETECTION SETUP

1. Access the Video Server's configuration by opening a web browser and entering the camera's IP address.
2. Click the "Setup" link on the left.
3. On the Left, click "Video". The following window will appear:



The screenshot shows a web-based configuration interface for a video server. The title bar at the top right says "Configuration". On the left is a sidebar menu with options: HOME, System, Security, Network, DDNS & UPnP, Mail & FTP, Access list, Video (highlighted), Camera control, Homepage layout, Application, View log file, View parameters, and Factory default. The main content area is titled "> Video". It contains four sections, each for a video stream (Video 1, Video 2, Video 3, Video 4). Each section has a checked "Enable" checkbox and four buttons: "Image Setting", "Camera Setting", "Motion detection", and "Privacy mask". Below these sections are three dropdown menus: "Modulation:" set to "Auto", "Default video source:" set to "1", and "Bandwidth limit:" set to "Not limited". A "Save" button is at the bottom left of the main content area. The bottom left corner of the page shows the text "VS2403-VVTK-0100p".

4. Select "Motion Detection" for the port you wish to configure to access the following screen:



The screenshot shows a web browser window titled "http://192.168.0.89 - Motion detection 1 - Microsoft Internet Explorer". The page has a teal header with "> Motion detection". Below the header is a checked checkbox labeled "Enable motion detection". The main content area is divided into two parts. On the left is a video feed window titled "Camera1" showing a room with a desk and a door. On the right are configuration options: "Window Name:" with a text box containing "Camera1", "Sensitivity:" with a slider set to 94%, and "Percentage:" with a slider set to 0%. Below the sliders is a vertical list of empty checkboxes. At the bottom right are "New" and "Save" buttons. The browser's status bar at the bottom shows "Done" and "Internet".

5. Place a check mark in the box labeled "Enable Motion Detection".

6. 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 by clicking the “New” button
7. There are two values that can be individually set for all included windows, “Sensitivity” and “Percentage”.
  - **Sensitivity** refers to the difference in luminance from one frame to the next. A low setting will only trigger motion if 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%
  - **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%.

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

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## 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:

- “<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		Not Required	
Video Cameras	Name	<User Defined> (Default: <b>Vivotek VS2403 Port</b> )	
	Device Type	<b>Vivotek VS2403 Port</b> (See Note 1)	
	Location	<User Defined> (Not Required)	
	IP Address	<User Defined> (See Note 2)	
	Settings	<Select> (See Note 3)	This is the video input: 1, 2, 3, or 4
	Favor Fast Frames	<Select> (Default: <b>Never</b> ) (See Note 4)	
	Flip Image 180	<Select> (Default: <b>No</b> )	For cameras mounted on the ceiling

- Notes:**
1. Add one Vivotek Video Port for each camera or video source connected to the server.
  2. Enter the IP address of the Video Server as configured in the setup.
  3. Select the port number into which the video device is connected.
  4. Favor Fast Frames increases the frame rate for slow connections when viewing cameras over the Internet. Set this to **No** for video sources that will not be accessed over the Internet.

## **COMMON MISTAKES:**