ELAN®

Integration Note

Manufacturer:	Panasonic
Model Number(s):	**IP Video Cameras (See models list below)** *NOTE: This Integration Note details use of the Panasonic Standard Series driver for consumer model lines. See the Panasonic i-Pro Integration Note for i-pro models.*
Minimum Core Module Version:	g! 6.1
Comments:	Network Camera (version 3.10) CGI Command Protocol 5.03
Document Revision Date:	2/13/2013

IMPORTANT: This Integration note only applies to the new "Panasonic Standard Series" driver available in version 6.1 of g! software. If your Configurator lists individual models of Panasonic or states "Panasonic Series", you must use the older Integration Notes rather than this document.

OVERVIEW AND SUPPORTED FEATURES

THE PANASONIC CAMERA DRIVER SUPPORTS THE FOLLOWING FEATURES:

Pan / Tilt / Zoom: Some Panasonic 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. Note: cameras that only have digital zoom may not support zoom through the g! viewer.

Presets: Some Panasonic cameras support presets, allowing the user to store predefined locations such as a driveway or pool. This feature is supported in the driver, and is configurable using a dropdown menu.

Motion Detection: Some Panasonic 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.

Video Out: Some Panasonic cameras include an analog video output, which can be connected to an analog DVR to provide separate recording, or to a TV modulator to enable camera viewing on a television.

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.

One-Way Audio: Some cameras support Listen function for audio. This is supported on applicable models.

THESE CAMERAS DO NOT SUPPORT THE FOLLOWING FEATURES:

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

Two-Way Audio: Two way audio (speaking from a touch screen and outputting from Camera) is not supported by the g! system at this time.

Megapixel/Widescreen Resolution: Some models support Megapixel or Widescreen resolutions. This is not supported by g! at this time, and only the cameras lower resolutions will be usable in the Viewer.

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

INSTALLATION OVERVIEW

Installing the Panasonic 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 Panasonic 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

The camera configuration is done with software provided by Panasonic, which must be run from a computer with Windows also connected to the same network as the camera.

The software program from Panasonic is **EasyConfig.exe**: the version we checked is shown at the top.

IMPORTANT NOTES

1. **Cameras must be configured one at a time**: If you are installing more than one camera, setup the first one completely before powering up subsequent cameras.

2. **Setup the camera within 20 minutes:** Initial settings must be made within 20 minutes of the camera being turned on. If the camera has been powered up for more than 20 minutes, cycle power to the camera before proceeding.

3. **DON'T LOSE THE CAMERA PASSWORD:** During setup you will create a user name and password, which are required to make any other changes in the future. If you lose the user name or password you will have to factory reset the camera and repeat this entire procedure.

4. **DEFAULT USER NAME / PASSWORD:** For Panasonic cameras, our default user name is **Administrator** and our default password is **password**.

STARTING THE PANASONIC CAMERA SOFTWARE

Note: The directions below may vary somewhat between models and may not be an exact match. In general, look for options/screens similar those depicted below.

1. Insert the CD from the camera into your PC: It should autostart the Network Camera Setup software. If it does not, launch Setup.exe from the Panasonic CD.
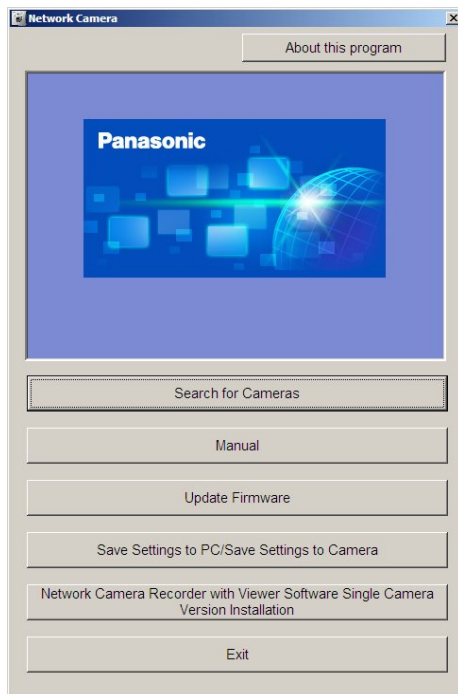
2. The following Screen appears. Choose **Search for Cameras**.

3. Wait a moment to allow the software to find the camera: the following screen appears.
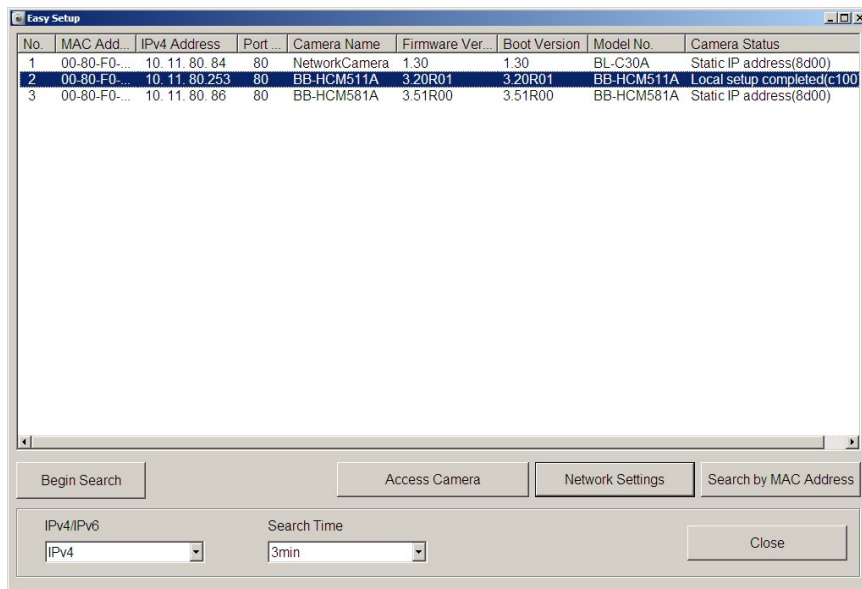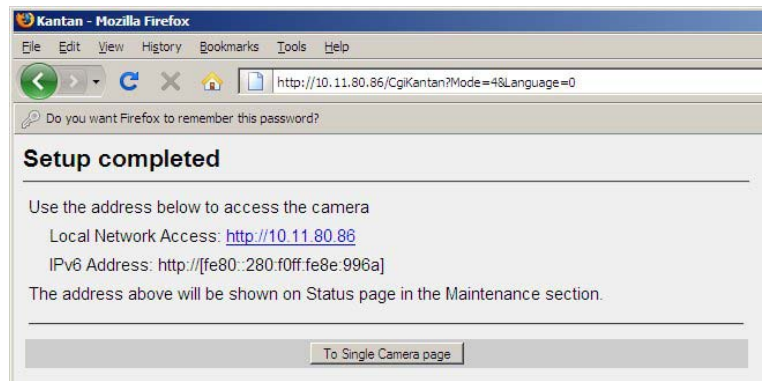
4. Select the desired camera, and then click the **Access Camera** button. After a short delay you will see a new browser window with the initial password screen below:
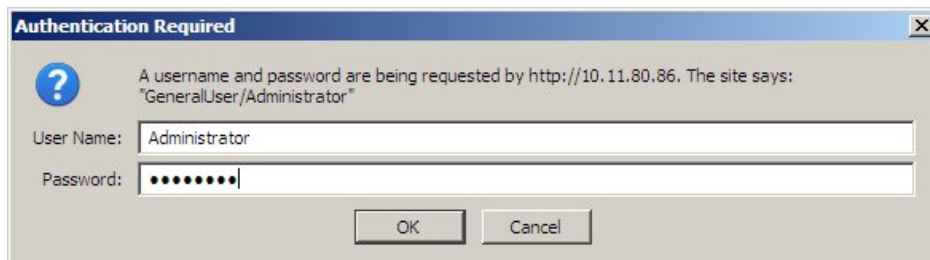
5. Type in your desired user name and password and click Save. By default we set the user name to **Administrator** and the password to **password**.

6. After a moment initial setup will complete. When prompted with the screen below, click the "To Single Camera page" button.

7. You will be prompted to enter your user name and password to login, as shown in the image below. Type in the user name and password you just set, and click **OK**.

CAMERA SETTINGS

1. After typing in your user name and password, you will be shown the standard browser interface to the camera.

2. The system may attempt to install an ActiveX control to show the camera image in the browser window. This control is not needed for proper **g!** operation, but is needed if you wish to see the camera image on that computer. If any dialogs appear, close them or accept the ActiveX control as appropriate for your situation.

3. Click **Setup** at the top to bring up the screen shown below:

4. Click **Network (IPv4)** to bring up the network settings screen shown below.

5. Click **Static** in the Connection Mode to bring up the screen below.

6. Set the IP address 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. Set the Default Gateway and the 1st DNS server to the router IP Address, and then click **Save** to save the settings.

7. If prompted, click to **Restart** to restart the camera. Note that the camera is now at a different IP address, so the browser window won't show the camera.

8. Go to the address line in the browser, and put in the **new IP address** as shown below:
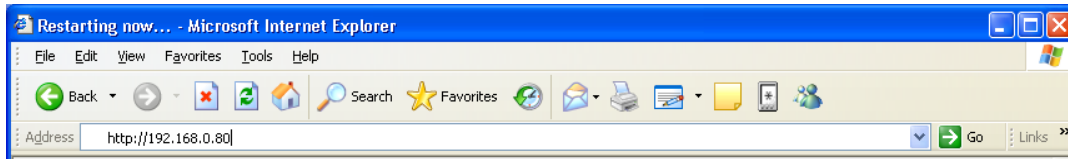
9. This brings up the camera's home page similar to shown below:
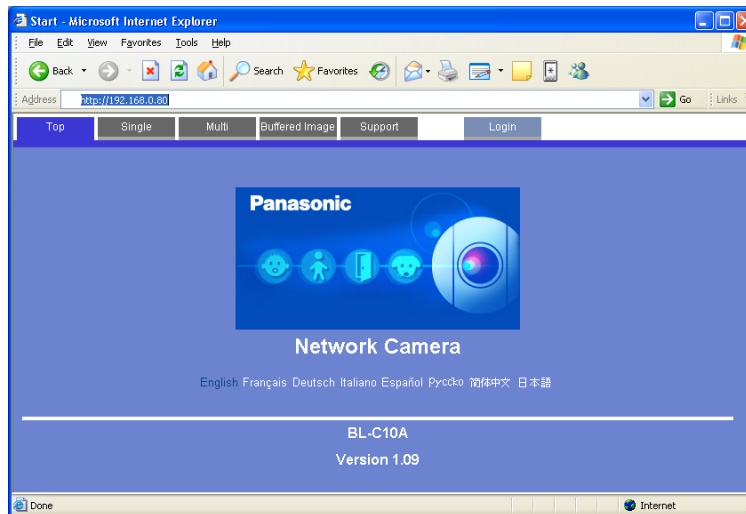
10. The camera is now at the correct IP address with the correct settings.

MOTION DETECTION FOR DVR CONFIGURATION

To use Panasonic IP Cameras with the **g!** DVR tab, enter the web configuration by typing the camera IP into the browser and logging on using your username and password. Click Setup, and then below Buffer/Transfer click **Motion Detection**. Threshold is the measure of the camera's sensitivity to change—a lower setting will cause it pick up smaller changes. Sensitivity affects the light sensitivity—a higher setting will result in more frequent detections of lighting changes.
Typically, the **Threshold** should be set to the LOWEST setting and **Sensitivity** should be set to the HIGHEST.

Please see the **DVR Integration Note** for full details on setting up the DVR tab in **g!**

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	N/A (See Note 1)	N/A (See Note 1)	
Video Cameras	Name	<User Defined>	
	Device Type	Panasonic Series	
	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!
	UserName	<User Defined> (Default: **Administrator**)	
	Password	<User Defined> (Default: **password**)	
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 YES if the camera has position/zoom presets.
	Has Audio	<Select> (Default:<**No**>)	Set to YES if the camera has 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.			

PANASONIC CAMERA MODELS/FEATURES

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

Model	Pan & Tilt	Zoom	Audio	Motion	Tested
BB-HCE481A	Yes	Yes	Yes	Yes	Yes
BB-HCM311A	Yes	No	Yes	Yes	Yes
BB-HCM331A	Yes	No	Yes	Yes	Yes
BB-HCM371A	Yes	No	Yes	Yes	No
BB-HCM381A	Yes	Yes	Yes	Yes	Yes
BB-HCM403A	No	No	Yes	Yes	No
BB-HCM511A	Yes	No	Yes	Yes	Yes
BB-HCM515A	Yes	No	Yes	Yes	Yes
BB-HCM527A	Yes	Yes	Yes	Yes	Yes
BB-HCM531A	Yes	No	Yes	Yes	Yes
BB-HCM547A	Yes	Yes	Yes	Yes	No
BB-HCM580A	Yes	Yes	No	Yes	Yes
BB-HCM581A	Yes	Yes	No	Yes	Yes
BB-HCM701A	Yes	No	Yes	Yes	No
BB-HCM705A	No	No	Yes	Yes	Yes
BB-HCM715	Yes	Yes	Yes	Yes	Yes
BB-HCM735	Yes	Yes	Yes	Yes	Yes
BLC-101A	No	No	Yes	Yes	Yes
BLC-10A	Yes	No	No	Yes	Yes
BLC-111A	Yes	No	No	Yes	Yes
BLC-121A	No	No	Yes	Yes	Yes
BLC-131A	Yes	No	No	Yes	Yes
BLC-140A	No	No	No	Yes	Yes
BLC-160A	No	No	No	Yes	Yes
BLC-1A	No	No	No	Yes	Yes
BLC-20A	No	No	No	Yes	Yes
BLC-210A	No	No	Yes	Yes	Yes
BLC-230A	No	No	Yes	Yes	Yes
BLC-30A	Yes	No	No	Yes	Yes
KX-HCM10	Yes	No	No	No	Yes
KX-HCM110A	Yes	No	No	Yes	Yes
KX-HCM230	Yes	No	No	No	Yes
KX-HCM250	Yes	No	No	No	Yes
KX-HCM270	Yes	No	No	No	Yes
KX-HCM280	Yes	Yes	No	No	Yes
KX-HCM280A	Yes	Yes	No	Yes	Yes
KX-HCM8	Yes	No	No	No	Yes

Note: Zoom is marked "No" on all cameras that do not support optical zoom. You may try setting this to yes and evaluate if digital zoom is available through g! for that camera, but results are not guaranteed.

COMMON MISTAKES:

Incorrect Camera Settings:

- Confirm settings in the Panasonic camera for Username and Password match, or you will see no video feed.

- Confirm Guest Users are Enabled, and the Guest User has appropriate permissions to control Pan/Tilt/Zoom/Presets and so on. If you have Video feed, but cannot use one of these features the camera settings are most likely incorrect.

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.

REFERENCE: CURRENT FIRMWARE REVISIONS EXPECTED TO FUNCTION

Model:	FW:
HCM580,HCM581,HCM527,HCM547	v3.60
HCM511,HCM531,HCM515	v3.51
C111,C131,C140,C160,C101,C121	v3.60
HCM701,HCM705,HCM715,HCM735	v4.30
C210,C230	v4.31