

# Intelli-Site Security Management Software

# HikVision NVR Panel Guide

For Windows 7 Professional and Ultimate, Windows 8.1 Pro and Enterprise, Windows 10 Pro and Enterprise, Server 2008 R2, and Server 2012 R2

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# **Technical Support Assistance**

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## **Technical Support**

Technical support is available via Telephone or Email. Contact Intelli-Site Technical Support 8:00 AM to 5:00 PM Central Standard time. If calling after hours, please leave a detailed voice mail message, and someone will return your call as soon as possible.

Email:support@ossi-usa.comPhone:888-488-2623

When calling, please be at the computer prepared to provide the following information:

- Product version number, found by selecting the **DAbout** button from the Intelli-Site Application Menu.
- Product License and SMA numbers used for registration.
- The type of computer being used including, operating system, processor type, speed, amount of memory, type of display, etc.
- Exact wording of any messages that appear on the screen.
- What was occurring when the problem was detected?
- What steps have been taken to reproduce the problem?
- It is highly recommended that the user execute a System Information Report and export that report to Adobe .pdf format for transmission to Intelli-Site technical support staff.

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# **1** Introduction

The Intelli-Site HikVision video integration uses the HikVision SDK v 5.2.1.3. The Intelli-Site HikVision NVR panel is the Intelli-Site software representation of a HikVision NVR, referred to from here on out as a HikVision NVR panel.

This guide explains using the HikVision driver and HikVision NVR panel with Intelli-Site.

# **2** Installation

The HikVision driver in Intelli-Site must be installed. No external software is needed.

If Intelli-Site has been installed without the HikVision driver, run the Intelli-Site installer again and select **Modify**.

During the Intelli-Site installation or modify installation process, you are presented with the **Select the drivers you want to install** window.

Intelli-Site - InstallShield Wizard	×
Select the drivers you want to install.	
Select the drivers you want to install, and deselect the drivers you do not want to install.	
Accutech Driver	^
Digital Watching Driver     ExacqVision Driver	
Select All Clear All	<b>`</b>
Instalishield < <u>B</u> ack <u>N</u> ext > Cance	!

Figure 1 - Select the drivers you want to install

Ensure the **HikVision Drivers** option is checked then continue with the installation or modification.

*Note:* When modifying the installation, clearing a checkbox will cause that component or driver to be removed from the current installation.

# 3 Setup

The HikVision Driver and HikVision NVR panel are best configured in **Hardware Management View**. Before we begin though, it is a good idea to have the IP address, TCP port number, username and password for the HikVision NVR.

Once the above information is obtained, the setup process is straight forward.

- 1. Add a HikVision Driver
- 2. Add a HikVision NVR Panel
- 3. Configure the NVR Panel including adding the cameras
- 4. Enable the HikVision Driver

### 3.1 Add a HikVision Driver

Adding a HikVision Driver is simple, but important. Without it, no communication with the HikVision NVR can occur.

Launch the Desktop Client and login.

Hardware is managed in the **Hardware Management View**. If you are not in **Hardware Management View**, click on Menu - and select **S**.

Intelli-Sit	e - Public Scho	ool System								-	٥	×
Site:	Corporate	Headquarters	×	Area:	Area	~		Add Driver	Reports Vi	ew		
		·										
Ack	Ack All	Alarm Description			Status	Priority	Date	Time	Count	Card No.	Acked	By
Clear	Clear All											
Queue C	ontrol	<b>`</b>					_					7
Menu -												

#### Figure 2 - Hardware Management View

To add the HikVision driver, click Add Driver. The Choose Driver Type dialog displays.

😵 Choose Driver Ty	ре		×
Note: A driver is not s in all areas until a pan display only in the are	pecific to an a lel has been ac a to which its	area, panels are. I dded to it. The di panels belong.	t will appear iver will then
Driver Type:	HikVision		$\sim$
		ОК	Cancel

Figure 3 - Choose Driver Type Dialog

Select *HikVision* from the **Driver Type** drop-down menu in the **Choose Driver Type** dialog the click OK. A new HikVision driver icon is added to the screen and its properties dialog opens.

揓 [1018] New H	likVision Driver	×
Properties		
Name:	New HikVision Driver	ID: 1018
User Level:	All Access ~	
Notes:		
Enabled:		
NVR List:		
		OK Cancel

Figure 4 - HikVision Driver Properties Dialog

Change the name of the driver to something more descriptive that reflects the location and/or usage of the HikVision NVR that this driver will control (e.g., PS101 HikVision Driver). No other fields need to be modified at this time.

#### *Note: For an explanation of all of the driver properties, see <u><i>HikVision Driver Node.*</u>.



Figure 5 - HikVision Driver Icon

Now we need to add a HikVision NVR panel to the HikVision Driver.

#### 3.2 Add a HikVision NVR Panel

Once a HikVision driver has been added, it's time to add a HikVision NVR panel to it.

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Right-click on the HikVision Driver and select *Add Panel*. The **Add Panel** dialog displays.

Add Panel	
⊡- Hik Vision - Hik Vision NVR	
#to Add: 1 🜲	OK Cancel

Figure 6 - Add Panel Dialog

Select *HikVision NVR*. Change the value of **# to Add** to the number of interfaces you want to add. For the most part, one (1) is sufficient. Click OK . A **New HikVision NVR** icon is added to the target HikVision Driver.



Figure 7 - HikVision Driver and a new HikVision NVR panel

Next comes configuring the HikVision NVR panel.

#### 3.3 Configure the HikVision NVR Panel

The HikVision NVR panel is configured using the **Quick Config** dialog. It is on this dialog that the IP address, TCP port, username, and password are set and the cameras are added. To open the **Quick Config** dialog, right-click on the HikVision NVR icon and select *Quick Config*.

🐡 Configure New HikVision NVR				×
Name: New HikVision NVR	Connection Address: Port: Username: Password:	8000 ÷		
Cameras:				
Name		Channe		PTZ Enabled
			Add	Delete
		Apply	OK	Cancel

Figure 8 – HikVision NVR Panel Quick Config Dialog

Change the **Name** of the panel to describe its use or location. In our example, the cameras being added are the ones for PS101.

Set the **Address** to the panel address of the HikVision NVR. Set the **Port**. The default value, 8000, is the standard port used by HikVision and is correct for most installations. Fill in the **Username** and **Password**. Then apply the new settings by clicking the **Apply** button.

There are two ways to add cameras. The first, and easiest way, is to click the Auto Detect button. Intelli-Site will query the HikVision NVR for the list of cameras and populate the **Cameras** table.

🐲 Configure New HikVision NVR					×
	- Connection	n Info			
Name: PS101 HikVision NVR	Address:	192.168.20.	119		
	Port:	8000 🜲			
Auto Detect	Username:	admin			
	Password:	******			
Cameras:		-			
Name		Channe	el	PTZ Enabled	
Loading Dock					
Lunch Room Door		34			
SW Corner		35			
IPCamera 04		36			
ScottCubelP		37			
IPCamera 06		38			
Conf Rm Lg		39			
Front Door		40			
SE Corner		41			
Front Door Parking Lot		42			
			Add	Delete	e
		Apply	ОК	Cance	el

Figure 9 – Quick Config after auto detecting the cameras

If there are any PTZ enabled cameras attached to this NVR, locate them in the **Cameras** table and check the **PTZ Enabled** check box. Click Apply or OK to save the settings.

If for some reason Intelli-Site does not locate all of the cameras or you don't want to automatically detect them, you can add cameras by hand. If that is the case, you must know the **Channel** number for each camera.

Click the Add button under the **Cameras** table. A new entry is added.

😻 Configure New HikVision NVR			×
	- Connection	n Info	
Name: PS101 HikVision NVR	Address:	192.168.20.119	
	Port:	8000	
Auto Detect	Username:	admin	
	Password:	******	
Cameras:			
Name		Channel	PTZ Enabled
New HikVision Camera			
		Add OK	Delete Cancel

Figure 10 - Quick Config with a new camera added manually

In the **Name** cell, enter the camera's name. In the **Channel** cell, enter the camera's channel number. Check the **PTZ Enabled** check box if the camera is a PTZ camera.

Repeat the process until all of the cameras are present. Click OK to save the settings.

#### 3.4 Enable the HikVision Driver

At this point, the HikVision NVR and the HikVision driver are configured, but the driver is not online. A quick way to know this is that the communication indicator is grey.



Figure 11 – Disabled HikVision Driver

Right-click on the driver to open the context menu; select *Enable Driver*. The communications indicator will change color to green when it's online.



Figure 12 - Enabled HikVision Driver

If for some reason the Engine cannot connect to the Driver Service or the Driver cannot connect to the HikVision NVR, the communication indicator will be red.

*Note: Live streaming of video does not require the Driver Service. The HikVision Driver must be enabled, but the Driver Service is not necessary. The Client initiates streaming connection.* 

The Driver Service is needed to receive alarms and events from the HikVision NVR.

Congratulations! The HikVision NVR is integrated and ready to use in **Video View** and in screen design for **Live View**. Screen design occurs in **Design View**.

# **4 Streaming Video**

Video from the HikVision NVR can be viewed in **Video View** or **Live View**. **Video View** allows the user to stream live video as well as playback. See the Intelli-Site User's Guide for information on **Video View**. This section explains the programming necessary to stream video in **Live View**.

# Note: Programming is done in Design View. Once programmed, it is used in Live View.

The philosophy of video streaming is that each video display screen object is expected to stream video from at least one camera. The video display contains a table that defines the cameras from which it will stream video. A counter value controls which stream to display. Therefore, a counter must be added to the project for every video display screen object.

## 4.1 Programming

Programming is simple. It requires a video display screen object, a counter per video display screen object, and counter values for each camera configuration the video display screen object is configured to display. Once the video display screen object is configured, additional screen objects are needed to trigger video streaming.

The following walks you through

- Adding the counter to the Tree,
- Adding counter values to that counter,
- Adding a video display screen object and configuring it, and then,
- Adding counter value screen objects to trigger video streaming.

#### 4.1.1 Add a Counter

Which camera or set of cameras to display is controlled by a counter and its counter values. Add the counter to the Tree by right-clicking on the area node and selecting *Add Node*. In the **Add Panel** dialog, select *Counters* then click OK. Expand the new Counters node to reveal the group node and the new counter.



Figure 13 - New Counter

We strongly suggest the names for these nodes be changed to ones that describe their purpose so that the next person that comes along doesn't have problems understanding their use. In keeping with our PS101 example, we named the group node **Video Display Counters Group**. The specific counter we named **PS101 Cameras Counter**.

Open the properties dialog for the counter, change the **Name** and check **Use Value Name for Label**.

🚰 [1026] Counters\	PS101 Cameras Counter			×
Properties Operati	on Alarm Queue Actio	ns		
Name: PS1	01 Cameras Counter		ID: 1026	
User Level: All	Access	~	*	
Notes:				
- Settings Threshold Value:	4294967295	Options	Use Node Name for Label:	
Threshold Counter:		Use V	'alue Node Name for Label: 🗹	
Change Amount	1		ls High Above Threshold: 🗹	
Maximum Value:	4294967295		Ignore Overflow: 🗹	
Minimum Value:	0		Fixed Threshold: 🗹	
Current Value:	0			
			OK Car	icel

**Figure 14 - Counter Properties Dialog** 

All of the other default values are fine.

#### 4.1.2 Add Counter Values

The camera configuration to display on a video display screen object is determined by the value of a counter. When the counter changes to the value for a configuration line in the video display's configuration table, that configuration of cameras will be displayed. This will become clearer in the next section. But understand it is important to have specific counter value nodes added to the Tree to control which cameras are streaming on a video display.

In our example, we want five (5) counter values for Disconnect, the Kinder Hall, Office, Cafeteria, and Library. Disconnect is special. This is the value of the counter when no camera streams are to be displayed. We will add it singly using *Add Node and Edit*, and then add the others using *Add Multiple...* 

To add the Disconnect counter value, right-click on the counter node and select *Add Node and Edit*.

[1027] Counters\PS101 Cameras Counter\1	×
Properties Operation Alarm Queue Actions	
Name:	ID: 1027
User Level: All Access 🗸	
Notes:	
Counter Value: 1	
Use Node Name for Label: 🗹	
	OK Cancel

Figure 15 - Counter Value Node Properties dialog

Notice that the **Name** and **Counter Value** are 1. Best practices suggest that the value for Disconnect should be zero (0). Therefore, set the **Counter Value** to zero (0). Change the **Name** to Disconnect. Also, check **Use Node Name for Label** this way the automatically created screen object for this node will be labeled Disconnect and not 0. Click the OK button to save the changes.

Now let's add the rest of the counter values. Right-click on the counter node and select *Add Multiple...* 

How many would you like to add?
Quantity to Add: 4
OK Cancel

Figure 16 - How many would you like to add? dialog

In the **How many would you like to add?** dialog, enter desired number. In the case of the example, we want four (4). Click the OK button.

Expand the counter node to reveal the new counter value nodes. Notice that they are named 1, 2, 3, etc.



Figure 17 - The New Counter Value Nodes

The properties for each counter value should be modified so that the **Name** is easily understandable and **Use Node Name for Label** is checked.



Figure 18 - The properly configured Counter Value Nodes

Now we're ready to begin the video display screen object programming.

#### 4.1.3 Add a Video Display Screen Object

The video display screen object is the workhorse of streaming video. It has the ability to display multiple streams at a time, switch between different streams, take snapshots, and even open a PTZ pad.

To add a video display to a screen, you must first be in Design View. Once in Design View, locate the Create Video Display tool in the Design View toolbar. Click on it to select it. Then use the mouse to draw the object on the screen. Place the mouse at one corner of the object, hold down the right mouse button and drag the mouse to the opposite corner then let up the button. A black quadrangle appears on the screen.



#### Figure 19 - Video Display Screen Object

Right-click on the video display screen object to open its properties.

🛤 [1081] Ne	ew Video Display	v			
		,			
Properties					
Name:	New Video Dis	splay	ID: 1081	A.	
User Level:	All Access		$\sim$		
Notes:			Location		Options
			X Position: 285	÷	# of Cameras: One ∨
			Vidth: 400		Toolbar Enabled:
			Height: 240	×	Camera Change Allowed:
				1	FTZ Allowed.
onfiguratio	ons:				
					Add Delete

Figure 20 - Video Display Properties Dialog

Change the **Name** field to describe the purpose of this video display.

The **Location** group box contains the fields associated with the location and size of the video display screen object.

#### **4.1.3.1 Options Group Properties**

Take a look at the **Options** group box.

Options	
# of Cameras:	One 🗸
Toolbar Enabled:	
Camera Change Allowe	ed:
PTZ Allowe	ed:

**# of Cameras** – drop-down menu; the number of video streams to display at one time, possible values are *One*, *Two*, or *Four*; Intelli-Site will divide the display screen into the number of cameras selected

If *Two* cameras is selected, Intelli-Site will divide the video display screen object into two video displays. The longer dimension, height or width, determines if the two displays are side by side or top and bottom. If the height is the longer dimension, the Camera 1 will be on top and Camera 2 will be on bottom. If the width is longer, then Camera 1 will be on the left and Camera 2 on the right.

When *Four* is selected, the video display screen into four video displays. Camera 1 is the top left display, Camera 2 is the top right display, Camera 3 is the bottom left display, and Camera 4 is bottom right display.

**Toolbar Enabled** – When checked, the toolbar for the video display will appear when the mouse hovers over it; the two fields below it are enabled as well

**Camera Change Allowed** – Enabled when **Toolbar Enabled** is checked; when checked, the user will be able to change the displayed cameras using the camera configuration drop-down menu in the toolbar

**PTZ Allowed** – Enabled when **Toolbar Enabled** is checked; when checked, the user will be able to open the PTZ pad in the toolbar

#### 4.1.3.2 Configurations Table

The **Configurations** table contains the definitions of desired camera configurations.

ounter Value	Camera 1	Camera 2	Camera 3	Camera 4

**Figure 21 - Configurations Table** 

Notice there are four columns for cameras. These camera columns correspond to the **# of Cameras** field in the **Options** group box. If *One* is selected, only the cameras in the **Camera 1** column will display. If *Two* is selected, then columns **Camera 1** and **Camera 2** are displayed. And of course, if *Four* is selected, then all four camera columns display.

Each line of the table links a counter value to a camera arrangement. When the counter is set to the specified counter value, the video display screen object will display the corresponding camera arrangement. Therefore, to display no video, a line with no cameras will be needed.

Use Add to add a line to the **Configurations** table. Use to delete the highlighted line of the table.

Returning to our example, we want to display Kinder Hall, the Office, the Cafeteria, and the Library. We are only going to display them one at a time which means we need a line for each camera and a line for no cameras for a total of five (5) lines. Use

**Counter Value** cell of the new line. The **Select Tree Item** dialog appears with all of the counter values in the Tree.



Figure 22 - Select Tree Item dialog for Counter Values

These are the counter values that we added in <u>Add Counter</u> <u>Values</u>. Select the counter value that you want to use for the no cameras configuration. We called that one **Disconnect**. Click

Counter Value	Camera 1	Camera 2	Camera 3	Camera 4
0551 Countere\ DS101	Connero	contero 2	cunicials	cumera i
[1055] Counters (P 510)	 ounters\PS101 Cameras	Counter\Disconnect		

Figure 23 – Configurations Table with the Disconnect definition

Click again. Click in the **Counter Value** cell of the new line. The **Select Tree Item** dialog appears with all of the counter values in the Tree. Select the counter value that you want to use for the next camera configuration then click oK Drag and drop the corresponding camera into the **Camera 1** cell.

*Note: The camera nodes are located in the Project Node Tree by expanding the HikVision NVR node and its Cameras child node.* 



Counter Value	Camera 1	Camera 2	Camera 3	Camera 4
[1055] Counters\PS101				
1056] Counters\PS101	[996] PS101 HikVision N			
[1056] Cour	nters\PS101 Cameras Coun	ter\Kinder Hall		

**Figure 24 - Configurations Table with Two Lines** 

Repeat until there are definitions for each of the camera configurations in the **Configurations** table.

Configurations:				
Counter Value	Camera 1	Camera 2	Camera 3	Camera 4
[1055] Counters\PS101				
[1056] Counters\PS101	[996] PS101 HikVision N			
[1057] Counters\PS101	[1031] PS101 HikVision			
[1058] Counters\PS101	[1036] PS101 HikVision			
[1059] Counters\PS101	[1046] PS101 HikVision			
				Add Delete

Figure 25 - Example Configurations Table

Make sure to click ok to save the changes made to the video display screen object.

#### 4.1.4 Add Counter Value Screen Objects

The last thing needed is screen objects to select the desired camera's video stream to display. Drag and drop the counter values to the screen to make counter value screen objects.

# Note: After the first counter value screen object has the desired look, you might want to use Replicate to create the rest of the screen objects. See the Intelli-Site User's Guide.





#### Figure 26 - Design View fully programmed

# 4.2 Live View

Now that everything is programmed, switch to **Live View**.

Note: The HikVision Driver must be enabled for video to display. See <u>Enable the HikVision Driver</u>.

Click on the button to display the desired video stream.





# 5 Design View

Design View is the home of the Project Node Tree and the place where screens and screen objects are programmed. The following sections explain:

- The HikVision Driver node properties,
- The HikVision NVR node properties, and
- The programming needed to stream video in **Live View**

#### 5.1 HikVision Driver Node

The HikVision driver node is found by expanding **Setup->Computer Setup->Drivers**.



Figure 28 - HikVision Driver node in the Project Node Tree

Right-click on the HikVision driver node and select *Properties* to open the properties dialog.

揓 [1018] New H	likVision Driver	×
Properties		
Name:	New HikVision Driver	ID: 1018
User Level:	All Access 🗸	
Notes:		
Enabled:		
NVR List:		
		)K Canad
		Cancel

Figure 29 - HikVision Driver properties dialog

**Name** – edit box; the name for the node; the name doesn't have to be unique

**ID** – numeric (disabled); the unique identifier of this node; generated by Intelli-Site

**User Level** – drop-down menu (default: All Access); the User Level a user must possess to open the properties for this node

**Notes** – multiline edit box; any notes the user may have for the node

**Enabled** – check box; when checked the driver is enabled

**NVR List**- drop box; the HikVision NVR nodes attached to this driver

#### 5.2 HikVision NVR Panel

The HikVision NVR panel node is found by expanding **System Layout** then the Site and Area to which the HikVision NVR panel was added in **Hardware Management View**. In the example below, the panel was added to the site **Corporate Headquarters** and the area **Area**.



Figure 30 - The HikVision NVR panel node in the Project Node Tree

The HikVision NVR node is the root node for the panel. The following sections will explain:

- The properties of the HikVision NVR node
- The configuration of the HikVision NVR panel (a.k.a. Quick Config)
- The child nodes of the HikVision NVR panel

#### 5.2.1 HikVision NVR Node Properties

Right-click on the HikVision NVR node to open the properties. These fields are not accessible through the quick config dialog except for **Address**. They correspond to those features that aren't part of the day to day running of the system.

📑 [1019] PS101	I HikVision NVR	×
Properties		
Name:	PS101 HikVision NVR ID:	1019 🜲
User Level:	All Access 🗸	
Notes:		
10.00		
Virtual:	Virtual Point:	
	ОК	Cancel

Figure 31 - HikVision NVR node properties dialog

**Name** – edit box; the name for the node; the name doesn't have to be unique

**ID** – numeric (disabled); the unique identifier of this node; generated by Intelli-Site

**User Level** – drop-down menu (default: All Access); the User Level a user must possess to open the properties for this node

**Notes** – multiline edit box; any notes the user may have for the node

**Virtual** – check box; when checked the panel is virtualized, allowing the driver to be brought online without having the physical panel available

**Virtual Point** – drop box; this I/O Point will be set when the panel is virtualized, clear when it is not

#### 5.2.2 HikVision NVR Quick Config

The **Quick Config** dialog is accessible either in **Hardware Management View** or in **Design View**. To open the **Quick Config** dialog, right-click on the HikVision NVR panel node and select *Quick Config*.

Configure PS101 HikVision NVR				×
	Connectior	n Info		
Name: PS101 HikVision NVR	Address:	192.168.20.	119	
	Port:	8000 🜲		
Auto Detect	Username:	admin		
	Password:	******		
Cameras:				
Name		Channe	1	PTZ Enabled
Loading Dock				
Lunch Room Door		34		
SW Corner		35		
Kinder Hall		36		$\checkmark$
Office		37		
Library		38		
Conf Rm Lg		39		
Front Door		40		
SE Corner		41		
Front Door Parking Lot		42		
			Add	Delete
		Apply	ОК	Cancel

Figure 32 - HikVision NVR panel Quick Config dialog

**Name** – edit box; the name of the HikVision NVR panel; updating this field will change the name of the node

Address – numeric; the address of the HikVision NVR panel

Port – numeric; the TCP port of the HikVision NVR

**Username** and **Password** – edit box; the login credentials of the HikVision NVR

**Note:** Changes to these fields are reflected on the Properties dialog.

Auto Detect - button; used to find the cameras of the HikVision NVR panel

**Cameras** – table; the cameras of the HikVision NVR panel; lists the name, channel, and if PTZ is enabled

Add - bu

- button; add a new line to the table above the button

Delete - button; delete the highlighted line from the table above the button

#### 5.2.3 HikVision NVR Panel Child Nodes

Each HikVision NVR panel node has two child nodes: **Cameras** and **Alarms**.



Figure 33 - HikVision NVR panel child nodes

The cameras listed in the **Cameras** table in the **Quick Config** dialog are stored in the Project Node Tree as nodes under the **Cameras** node. The **Alarms** node contains the alarm points for the panel. At this time, there is only one alarm point: **Panel Status**.

#### 5.2.3.1 Camera Node

The camera node defines the pertinent information about the camera. Expanding the camera node reveals the **Presets** node and the **Alarm** node.





#### 5.2.3.1.1 Camera Node Properties

Under the **Cameras** node are the camera nodes. The information about each camera is stored here.

📑 [1039] PS101	HikVision NVR\Kinder Hall		×
Properties			
Name:	Kinder Hall	ID: 10	)39
User Level:	All Access $\checkmark$		
Notes:			
Channel:	36		
PTZ Enabled:			
	0	K	Cancel

Figure 35 - Camera node Properties dialog

In addition to the standard properties of **Name**, **ID**, **User Level**, and **Notes**, the following fields are present.

Channel - numeric; the channel of the camera

**Station Type –** check box; check this box when the camera is a PTZ camera

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#### 5.2.3.1.2 Presets

Every camera has a **Presets** child node. It is only applicable to PTZ cameras because only PTZ cameras have preset positions. Once a preset position has been defined in the camera, a preset node can be added to the **Presets** node. This node will then be used in **Video View** to set the camera to the specified preset. It can also be used in **Live View** to do the same thing.

#### 5.2.3.1.2.1 Adding a Preset

To add a preset node, right-click on the **Presets** node and select *Add Node and Edit* from the context menu. A new general protocol node is added as a child of the **Presets** node and the properties dialog displays.

🛄 [1074] Kinde	er Hall\New General Protocol Node	$\times$
Properties O	peration Alarm Queue Actions	
Name:	New General Protocol Node ID: 1074	
User Level:	All Access ~	
Notes:		
Address:		
Protocol:		
Node Type:	General V	
	OK Cance	

Figure 36 - A new Presets child node

A general protocol node, GenProto for short, is a multi-purpose I/O point. The **Node Type** field defines how this particular node is to be used. The possible values are *General, IO, Camera, Intercom Station, Label*, and *Preset*. It must be set to *Preset* for a preset node.

**Address** – edit box; the number of the preset

Protocol – edit box; unused

**Node Type –** drop-down menu (values: *General, IO, Camera, Intercom Station, Label*, and *Preset*); set this field to *Preset* for a preset node

When every property field is properly filled in, the dialog will be similar to the following figure.

📑 [1074] Kind	ler Hall\Preset 1	$\times$
Properties C	peration Alarm Queue Actions	
Name	Preset 1 ID: 1074 🜲	
User Level:	All Access $\checkmark$	
Notes:		
Address:	1	
Protocol		
Node Type:	Preset ~	
	OK Cance	I

Figure 37 - Fully configured Preset properties dialog

## 5.2.3.1.2.2 Using Presets in Video View

For **Video View**, select the target camera. Hover over the camera in the **Select Camera** drop-down menu to open the side menus. This will reveal the presets. Click on the desired preset to send the command to the camera.

Intelli-Site -	Public Scho	ol System									_	đ	$\times$
None	e ing Dock												
Lunc	h Room Do	or											
SW C	Corner												
Kind	er Hall		Preset 1										
Offic	e		Preset 2										
Libra	ry		Preset 3										
Conf	Rm Lg												
Front	t Door												
SE Co	orner												
Front	t Door Parki	ng Lot											
		Alam	Description		Chature	Priority	Data	Time		Count	Card No.	Asked	. D
Ack	Ack All	Availi	Description		Status	 Flionty	Date	Time		Count	Card No.	Ackeu	by
Clear	Clear All	<											>
Queue Cont	rol												
Menu +													
<b>1</b> 0	(D)	C: 🦰	2 📄 3	. <	à		_		$\sim$	(1)) [3	10:50	AM	= <b>1</b>
	· _ ·									1 <u>1</u> 2° 407 E	10.00		1

Figure 38 - Example Camera Presets in Video View

#### 5.2.3.1.2.3 Using Presets in Live View

To use a preset in **Live View** requires a bit of programming in **Design View**. When the preset node is the target of a *SendCommand*, the HikVision driver sends the preset request to the HikVision NVR. This command can be in any action grid that allows a *SendCommand*. To illustrate, let's program a button.

First, a video display screen object must be added to the Project. This may seem like a redundant statement because why wouldn't there be a video display? The user is most likely viewing the video stream when there is a need to send the camera to a preset. In fact, the video display object was probably added using the <u>Programming</u> section from <u>Streaming</u> <u>Video</u>. This video display screen object is used in the programming of the button.

The button needs three commands. The first command is to set the live video object. The second is the preset command. And the third is the warm fuzzy so the user has feedback that the button was pressed.

Add a button to the screen using the Create Button tool. Open the properties of this new button and switch to the **States** tab. In the action grid, click on the first cell in the **Action** column. The **Actions** dialog opens. Locate the *LiveVideo* command in the **Video** group. Click on it then click OK. Then drag and drop the video display screen object node from the Project Tree into the **Target** cell. To find this node in the Tree, expand **Screen Control->Screens** and its child nodes until you find the desired video display screen object.

Now, click on the **Action** cell of the second row of the action grid. In the lower right side of the **Actions** dialog is the **Panel** group of actions. Click on *SendCommand* then click  $\bigcirc \mathsf{K}$ . Then drag and drop the preset node in the **Target** cell.

And last but not least, add a third line to play a sound so the user gets feedback to know the button was clicked. A label would also be nice. Click  $\bigcirc K$  to save the programming.

operties       States         0       >>>         neert       Add         Display Properties       >>         Name:       State 0         Display Properties       Label Properties         name:       Rash To State:         Name:       Rash To State:         Name:       Rash To State:         Name:       Rash Rate (ms):         1000 ‡       Label Properties         Image:       Stretch:         Label Object:       [1091] Kinder Hall/Pres         V. Just.:       Center          PopUp X:       ©         PopUp X:       ©         PopUp X:       ©         Action       Target         1       LiveVideo         1       LiveVideo         2       SendCommand         1091] Kinder Hall/Preset 1       Insert         3       Play       [933] Click wav         4       5	dit Scree	n Object	×
0       >>       Insert         Add       Delete         State Properties        Add         Name:       State 0        Lock Object         Display Properties         Lock Object         Mase 1       Rash To State:       None           Mase 2       Rash Rate (ms):       1000 ♀            Image:       Stretch:       Label Properties             Rotate (deg.):       0       ●       Effects       PopUp X:       0       PopUp Y:       0          Action       Target       1       LiveVideo       (1031) PS101 Video Display       1       insert         2       SendCommand       (1091) Kinder Hall/Preset 1       1       insert         3       Play       1933] Click wav       1       insert         4       5       0       0       0       1         Mouse Down       Mouse Up       Active       Inactive       Mouse Enter       Mouse Law	roperties	States	
State Properties       I Lock Object         Display Properties       I Lock Object         Flash To State:       None         Rash Rate (ms):       1000 ‡         Image:       Stretch:         Rotate (deg.):       0 ‡         Effects       PopUp X:         PopUp X:       0 ‡         Insert       1         LiveVideo       [1031] PS101 Video Display         2       SendCommand         1       LiveVideo         1       1091] Kinder Hall\Preset 1         3       Play         933] Click.wav         4       0         5       0         6       0         7       0         Mouse Down       Mouse Up         Active       Inactive	0 Preset 1	]	>> Insert Add Delete
Name:       State 0       □ Lock Object         Display Properties       □ Lock Object       □ Lock Object         Rash To State:       None       □       □ Lock Object         Rash To State:       None       □       □ Lock Object         Image:       Stretch:       □       □       □         Rotate (deg.):       0       ●       Effects       PopUp X:       0       ●         1       LiveVideo       [1031] PS101 Video Display       2       SendCommand       [1091] Kinder Hall\Press t       1         3       Play       [933] Click.wav       1       Insert       0         4       0       □       □       □       □         Mouse Down       Mouse Up       Active       Inactive       Mouse Enter       Mouse Leave	State Pro	perties	
Display Properties          Display Properties       Label Properties         Fash To State:       None         Plash Rate (ms):       1000 +         Image:       Stretch:         Rotate (deg.):       Image:         Action       Target         1       LiveVideo         1       LiveVideo         1       LiveVideo         1       LiveVideo         1       SendCommand         1       Pay         933] Click.wav         4       Delete         7       V         Mouse Down       Mouse Up         Active       Inactive         Mouse Low       Mouse Enter	Name:	State 0	Lock Object
Display Properties       Label Properties         Rash To State:       None         Flash To State:       None         Flash Rate (ms):       1000 +         Image:       Stretch:         Rotate (deg.):       Image:         Action       Target         1       LiveVideo         [1031] PS101 Video Display         2       SendCommand         [1091] Kinder Hall\Preset 1         3       Play         [933] Click.wav         4         5         6         7         Wouse Down         Mouse Up         Active       Inactive         Mouse Low	Display	Properties 1 al	hal Properties
Fiss 10 State:       None       Font       Shadow         Rust       Fiss Rate (ms):       1000 +       H. Just::       Center         Image:       Stretch:       Label Object:       [1091] Kinder Hall\Pres       V. Just::       Center         Rotate (deg.):       •       Effects       PopUp X:       •       PopUp Y:       •         Action       Target       •       •       •       PopUp Y:       •       •         1       LiveVideo       [1031] PS101 Video Display       •       •       •       •       •         2       SendCommand       [1091] Kinder Hall\Preset 1       • <t< td=""><td>Display</td><td>Reals To Chatas Mana</td><td></td></t<>	Display	Reals To Chatas Mana	
Flash Rate (ms):       1000 ‡         Image:       Stretch:         Label Object:       [1091] Kinder Hall\Pres         Rotate (deg.):           Action       Target         1       LiveVideo         [1031] PS101 Video Display         2       SendCommand         [1091] Kinder Hall\Preset 1         3       Play         [933] Click.wav         4         5         6         7         Wouse Down         Mouse Up         Active       Inactive         Mouse Low	Preset 1	Flash To State: None V	Font Shadow
Image:       Stretch:       Label Object:       [1091] Kinder Hall\Pres       V. Just.:       Center         Rotate (deg.):           Effects        PopUp X:         PopUp Y:           Action       Target                     1       LiveVideo       [1031] PS101 Video Display <td></td> <td>Flash Rate (ms): 1000 🖨</td> <td>H. Just.: Center V</td>		Flash Rate (ms): 1000 🖨	H. Just.: Center V
Rotate (deg.): <ul> <li>Effects</li> <li>PopUp X:</li> <li>PopUp Y:</li> <li>PopUp</li></ul>	Image:	Stretch: Lat	bel Object: [1091] Kinder Hall\Pres V. Just.: Center ~
Action     Target       1     LiveVideo     [1031] PS101 Video Display       2     SendCommand     [1091] Kinder Hall\Preset 1       3     Play     [933] Click.wav       4	Rotate	(deg.): 0 🔹 Effects Pop	DUp X: 0 🗢 PopUp Y: 0 🚖
1     LiveVideo     [1031] PS101 Video Display       2     SendCommand     [1091] Kinder Hall VPreset 1       3     Play     [933] Click.wav       4		Action	Target
2     SendCommand     [1091] Kinder Hall/Preset 1       3     Play     [933] Click.wav       4     5       5     6       7     7       Mouse Down     Mouse Up       Active     Inactive       Mouse Down     Mouse Up	1	LiveVideo	[1031] PS101 Video Display
3     Play     [933] Click.wav       4     1       5     1       6     1       7     1       Mouse Down     Mouse Up       Active     Inactive       Mouse Lawe     0K	2	SendCommand	[1091] Kinder Hall\Preset 1
4	3	Play	[933] Click.wav Insert
5     Delete       6     Delete       7     Delete       Mouse Down     Mouse Up       Active     Inactive       Mouse Leave     OK	4		
6 7 Mouse Down Mouse Up Active Inactive Mouse Enter Mouse Leave	5		Delete
7 Mouse Down Mouse Up Active Inactive Mouse Enter Mouse Leave	6		
Mouse Down Mouse Up Active Inactive Mouse Enter Mouse Leave	7		v
OK Carol	Mouse	Down Mouse Up Active Inactive Mouse	se Enter Mouse Leave
			OK Canad

Figure 39 - Programming using Preset node

Now, in **Live View**, when this button is clicked, the camera will be sent to the **Kinder Hall\Preset 1** preset.

#### 5.2.3.1.3 Alarms

#### Not Yet Implemented

The HikVision can be configured to report Video Loss and Motion Detection events for each camera. These events correspond to the camera **Alarms** nodes.



Figure 40 - Camera Alarms nodes

# *Note: For Intelli-Site to receive these events, the HikVision driver must be enabled.*

Each of these alarm nodes are general protocol nodes, a special type of I/O Point, with **Node Type** of *IO*. When the event is active, the point is high. When the event is not active, the point is low. Because they are I/O Points they have **Operation**, **Alarm Queue**, and **Action** tabs. See the Intelli-Site User's Guide for their properties and usage.

For an event to appear in the Alarm Queue, open the properties for the event node. Then switch to the **Operation** tab. At the very least, check **Panel Will Transmit** and **Add To Queue On High** as shown in the figure below.

🚯 [1027] Loading Dock\Video Loss	×
Properties Operation Alarm Queue	Actions
Operations Panel Will Transmit Add To Queue On High Add To Queue On Low Auto Clear On Normal Clear Only On Normal Acknowledge Required Latch Point Report Required	Camera Control Camera or System Monitor: Display Video Stop on Normal Video Recording Post-Alarm Duration (in seconds): 5 Pre-Alarm Duration (in seconds): 5
General	Email Notification Email Action: Email when point is High ~
Routing Level:	Distribution List: <none> ~</none>
All V Pulse Delay (millisec): 1000	Output Scripting Output Script: Com Port On:
Temp Pulse Counter:	CR: LF: STX: ETX: .
	OK Cancel

Figure 41 - Video Loss node: Operation tab

#### 5.2.3.2 Alarms

The alarms for the HikVision NVR are located under the **Alarms** node. There is only one, **Alarm Status**. This point is high when the panel is offline (assuming the driver is online, the Driver Service is running, and the panel is not virtualized). The point is low when the panel is online. Like the other points of the HikVision NVR panel, this point is a GenProto node.

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# **Revision History**

- 2017-01-16 Initial Creation
- 2017-02-15 Added Presets and Alarms
- 2107-02-20 Clarification on Programming and counter values
- 2107-04-10 Updated the HikVision NVR Node Properties dialog, it no longer has connection information. The connection information is found on the **Quick Config** dialog
- 2017-06-30 Rename from Intelli-Site 4 to Intelli-Site. Update cover page, icons, and screen captures. Add presets to the Camera Configurations of the Video Display object
- 2017-07-27 Added Table of Figures