



SIMPLIFY
ACCESS &
CONTROL

**Digital Watchdog
DW Spectrum NVR
Panel Guide**

Intelli-Site

Security Management Software

Digital Watchdog

DW Spectrum 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

DW Spectrum NVR Panel Guide

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

- Product version number, found by selecting the  **About** 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 Digital Watchdog DW Spectrum video integration uses the DW Spectrum 2.6.0.13109 API. The Intelli-Site DW Spectrum NVR panel is the Intelli-Site software representation of a DW Spectrum NVR, referred to from here on out as a DW Spectrum NVR panel.

This guide explains using the Digital Watchdog driver and DW Spectrum NVR panel with Intelli-Site.

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2 Installation

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

Note: *When Intelli-Site is installed on VMWare Workstation, it must be installed on version 12.6 or later for the DW Spectrum integration to stream video. The video driver in earlier versions may not work with the vlc library.*

If Intelli-Site has been installed without the Digital Watchdog 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.

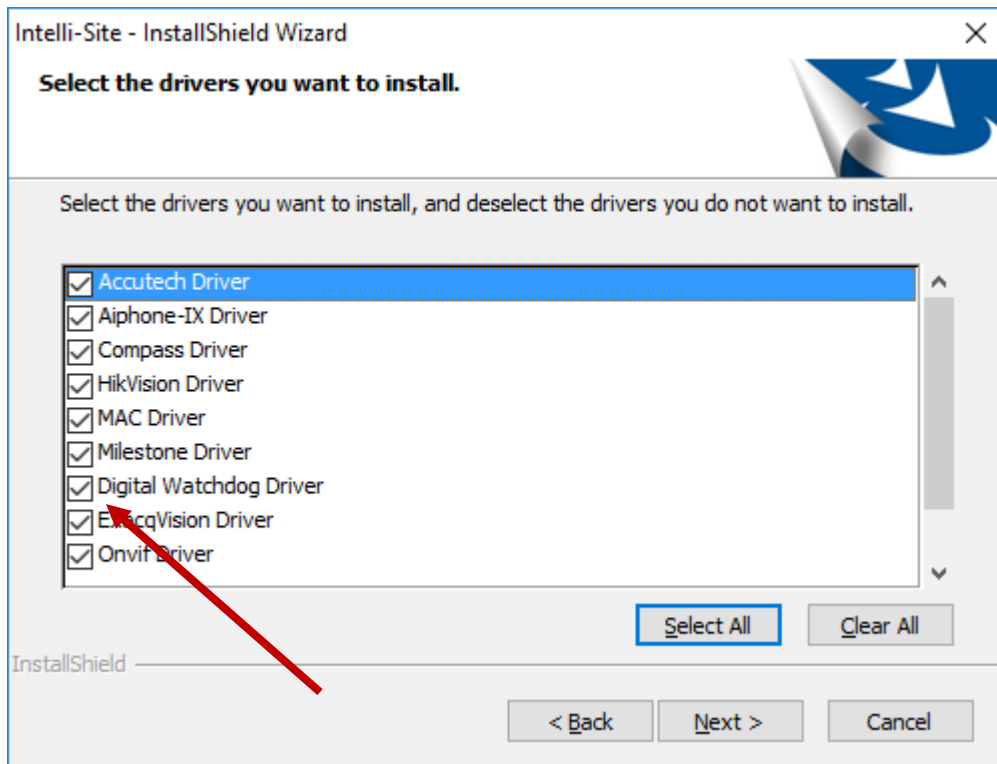


Figure 1 - Select the drivers you want to install


Ensure the **Digital Watchdog Driver** option is checked then click **Next >** to continue with the installation or modification.

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

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3 Setup

The Digital Watchdog driver and DW Spectrum 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 DW Spectrum NVR.

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

1. Add a Digital Watchdog driver
2. Add a DW Spectrum NVR Panel
3. Configure the NVR Panel including adding the cameras
4. Enable the Digital Watchdog driver

3.1 Add a Digital Watchdog driver

Adding a Digital Watchdog driver is simple, but important. Without it, no communication with the DW Spectrum 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  and select .

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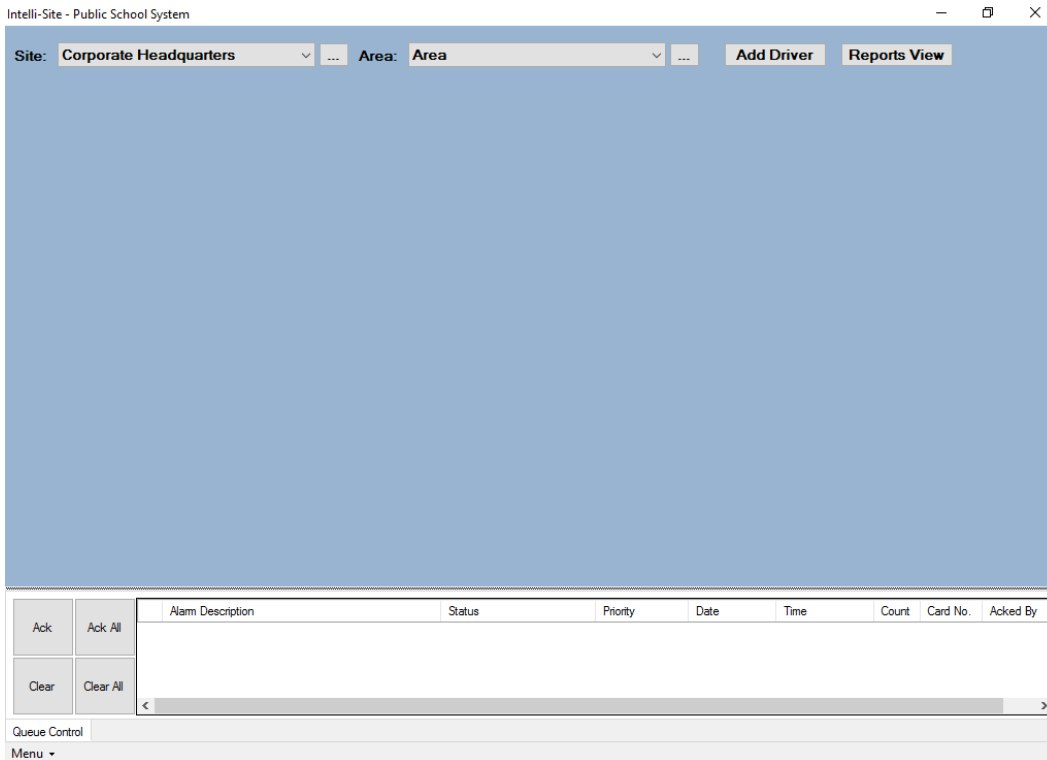


Figure 2 - Hardware Management View

To add the Digital Watchdog driver, click **Add Driver**. The **Choose Driver Type** dialog displays.

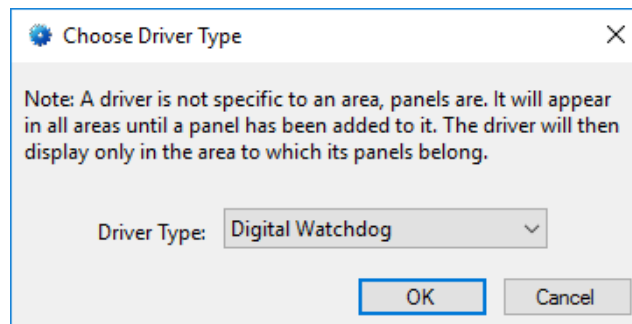


Figure 3 - Choose Driver Type Dialog

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

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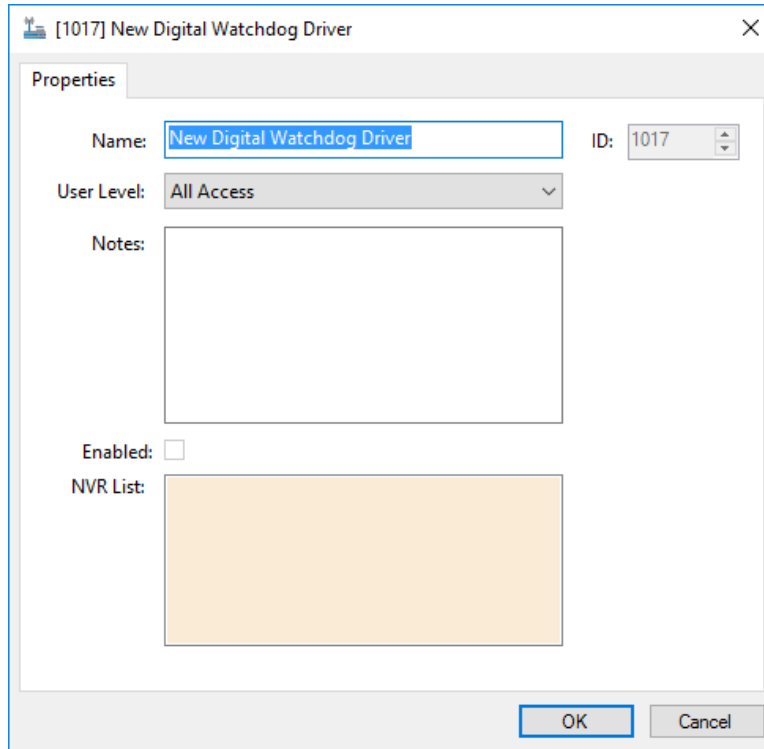


Figure 4 - Digital Watchdog driver Properties Dialog

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

Note: For an explanation of all of the driver properties, see [Digital Watchdog driver Node](#).

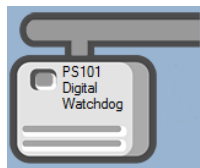


Figure 5 - Digital Watchdog driver Icon

Now we need to add a DW Spectrum NVR panel to the Digital Watchdog driver.

3.2 Add a DW Spectrum NVR Panel

Once a Digital Watchdog driver has been added, it's time to add a DW Spectrum NVR panel to it.

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Right-click on the Digital Watchdog driver and select *Add Panel*. The **Add Panel** dialog displays.

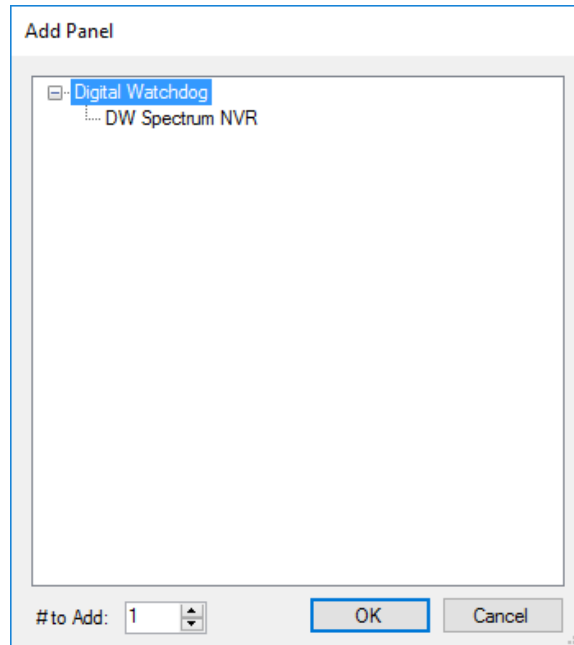


Figure 6 - Add Panel Dialog

Select *DW Spectrum 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 DW Spectrum NVR** icon is added to the target Digital Watchdog driver.



Figure 7 - Digital Watchdog driver and a new DW Spectrum NVR panel

Next comes configuring the DW Spectrum NVR panel.

3.3 Configure the DW Spectrum NVR Panel

The DW Spectrum 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 DW Spectrum NVR icon and select *Quick Config*.

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Configure New DW Spectrum NVR

Name:

DW Spectrum Server Version
<none>

Cameras:

Name	Camera ID	PTZ Enabled
------	-----------	-------------

Camera Settings

Connect Directly:

Detected URL:

Custom URL:

Custom URL overrides the selected Detected URL.

Use Anonymous Login: Username:

Password:

Leave these blank to use the NVR's login credentials.

Figure 8 – DW Spectrum NVR Panel Quick Config Dialog

Change the **Name** of the panel to describe its use or location. In our example, the DW Spectrum NVR is located at PS101.

Set the **Address** to the panel address of the DW Spectrum NVR. This can be the IP address or the DNS address. Set the **Port**; 7001 is the default value for the DW Spectrum. Fill in the **Username** and **Password**. Leave the **Protocol** field set to *RTSP*. It is there for future development. Then apply the new settings by clicking the button.

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Note: The username and password are used in the URL when logging in to Digital Watchdog Spectrum NVR. This means the password cannot contain '@' or ':' since these characters are delimiters.

<http://username:password@dwspectrumnvr.com>

Because this is the way the API logs in, we strongly suggest that you create a User on the DWSpectrum NVR that is only used by Intelli-Site and limit the permissions to View event log, View archive, View bookmarks, and User Input. Also select the appropriate cameras and resources.

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

Configure New DW Spectrum NVR

Name: PS101 DW Spectrum NVR

Auto Detect

DW Spectrum Server Version
3.1.0.16975-77ebc0608e38-digitalwatchdog

Connection Info

Address: digitalwatchdog.Intelli-Site.com

Port: 7001

Username: admin

Password: *****

Protocol: RTSP

Cameras:

Name	Camera ID	PTZ Enabled
Kinder Hall	59bf96bf-4e7d-c395-c00e-6d8b62179ce4	<input type="checkbox"/>
Library	76dea198-e207-c5fb-05c1-8d7a2b651403	<input checked="" type="checkbox"/>
Office	a98a957a-7671-be8c-52c1-35ce54a9b28b	<input checked="" type="checkbox"/>

Add Delete

Camera Settings

Connect Directly:

Detected URL: rtsp://192.168.20.41:554/h264

Custom URL:

Custom URL overrides the selected Detected URL.

Use Anonymous Login: Username:

Password:

Leave these blank to use the NVR's login credentials.

Apply OK Cancel

Figure 9 – Quick Config after auto detecting the cameras

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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 or to save the settings.

The **Camera Settings** group box contains the settings to directly connect to a camera instead of streaming from the DW Spectrum NVR. Directly connecting to a camera is not the recommended method for the majority of installations. It is not explained here but is covered in [DW Spectrum NVR Quick Config](#).

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 **Camera ID** number for each camera. There are two possible IDs. The better ID is the one generated by DW Spectrum itself which is the ID Intelli-Site displays after auto-detection. If for some really weird reason you don't have the camera ID, you can use the hardware address.

Note: The hardware address does not work if the camera is attached to a network encoder with multiple cameras.

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

Name	Camera ID	PTZ Enabled
Kinder Hall	59bf96bf-4e7d-c395-c00e-6d8b62179ce4	<input type="checkbox"/>
Library	76dea198-e207-c5fb-05c1-8d7a2b651403	<input checked="" type="checkbox"/>
Office	a98a957a-7671-be8c-52c1-35ce54a9b28b	<input checked="" type="checkbox"/>
New Digital Watchdog Camera	00-00-00-00-00-00	<input type="checkbox"/>

Figure 10 - Quick Config with a new camera added manually

In the **Name** cell, enter the camera's name. In the **Camera ID** cell, enter the camera's ID. 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.

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3.4 Enable the Digital Watchdog driver

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

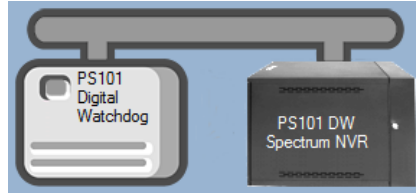


Figure 11 – Disabled Digital Watchdog driver

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.

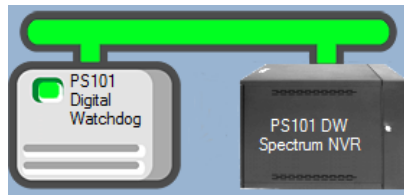










Figure 12 - Enabled Digital Watchdog driver

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

Congratulations! The DW Spectrum 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 DW Spectrum NVR can be viewed in  **Video View** or  **Live View**.  **Video View** allows the user to stream live video as well as playback if applicable. 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.

Intelli-Site has automated the configuration and programming for those video displays that will only display one video from one camera at a time. If for some reason, the video display must stream from two or more cameras simultaneously, you will need to program it by hand.

4.1.1 Automatic Programming

The following walks you through the automatic programming of the video display for streaming one camera at a time. You will:

- Add a counter to the Tree and
- Add a video display screen object and configure it.

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4.1.1.1 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 . Expand the new **Counters** node to reveal the group node and the new counter.

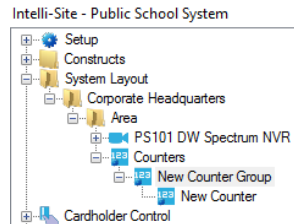


Figure 13- The expanded Counters node

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**. All of the other default values are fine.

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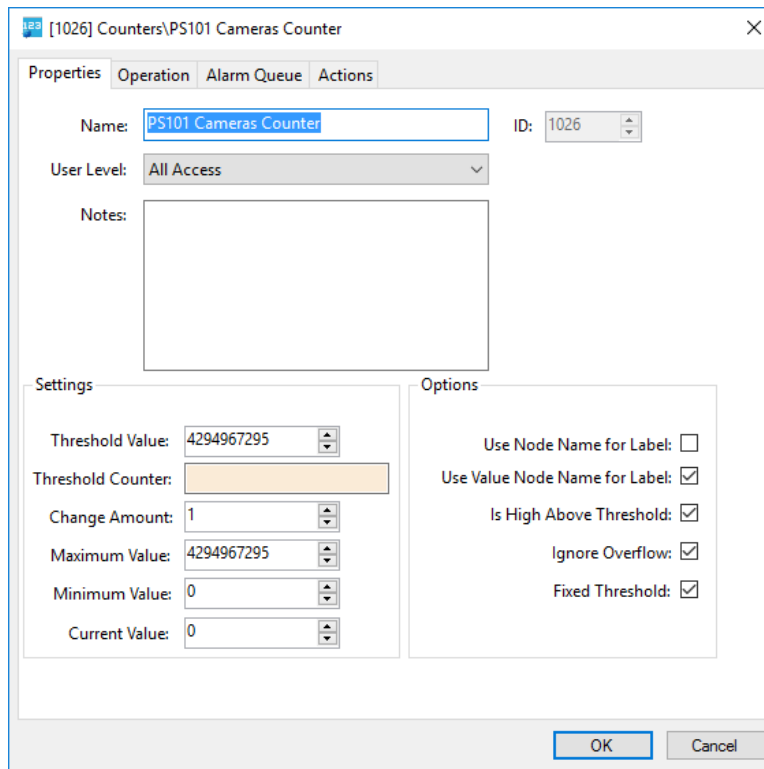


Figure 14 - Counter Properties Dialog

4.1.1.2 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.

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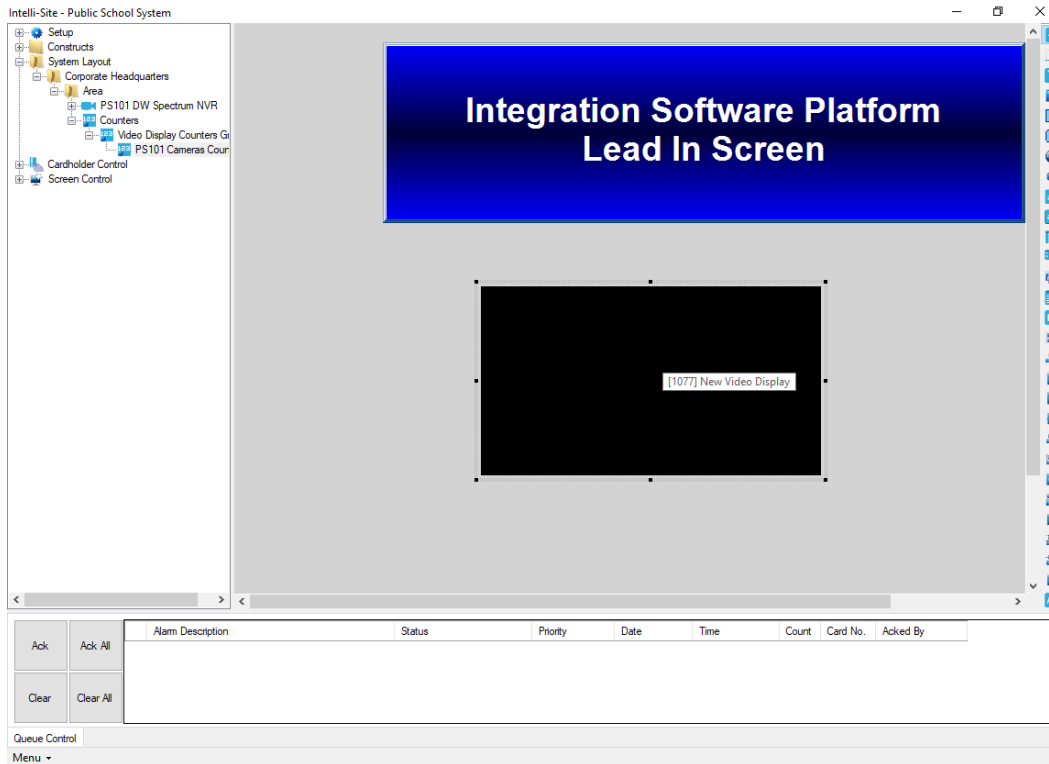


Figure 15 - Video Display Screen Object

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

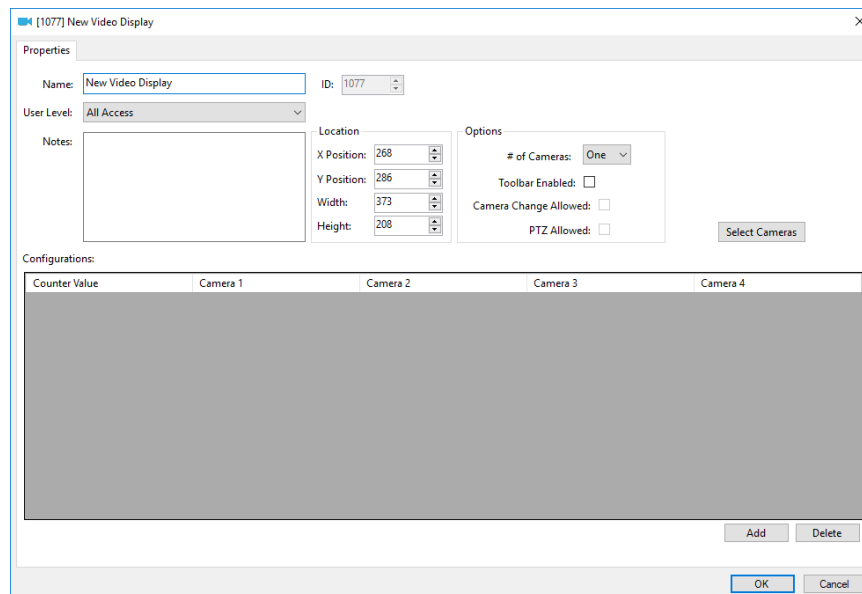


Figure 16 - Video Display Properties Dialog

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

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The **Location** group box contains the fields associated with the location and size of the video display screen object. These are updated when the object is dragged around the screen or when it is resized.

The **Options** group box contains the fields that define the video display parameters. When **Toolbar Enabled** is checked, the toolbar for the video display will appear when the mouse hovers over it. When checked, **Camera Change Allowed** and **PTZ Allowed** are enabled. If **Camera Change Allowed** is checked, the video display toolbar will include the camera selection tool. If **PTZ Allowed** is checked the toolbar will include the PTZ pad.

The button is only enabled when **# of Cameras** is set to *One*. This button runs the automatic configuration wizard. Click it. A **Select Cameras** dialog displays.

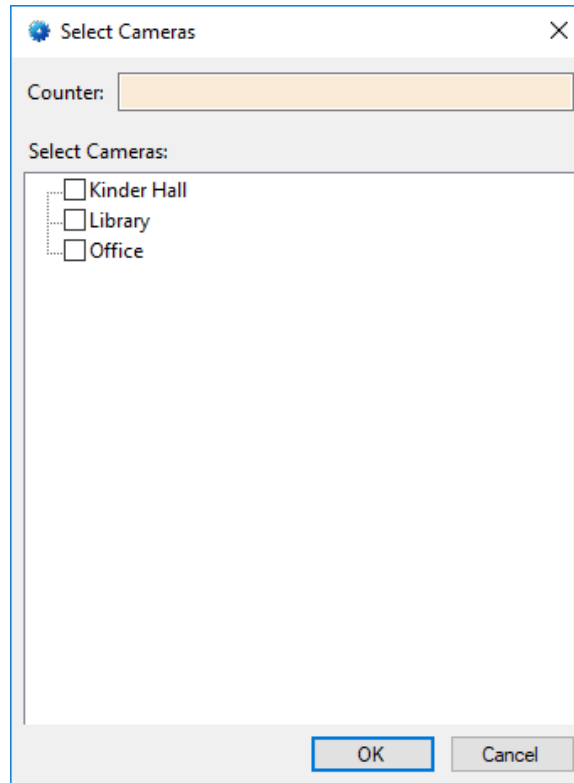


Figure 17 - Select Cameras dialog

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The automatic configuration wizard needs to know what counter and which cameras. Click in the **Counter** drop box and select the desired counter and check the desired cameras. Then click **OK**. Intelli-Site will add counter values to the Tree for each camera selected and add rows to the **Configurations** table. Click **OK** on the video display properties to save it.

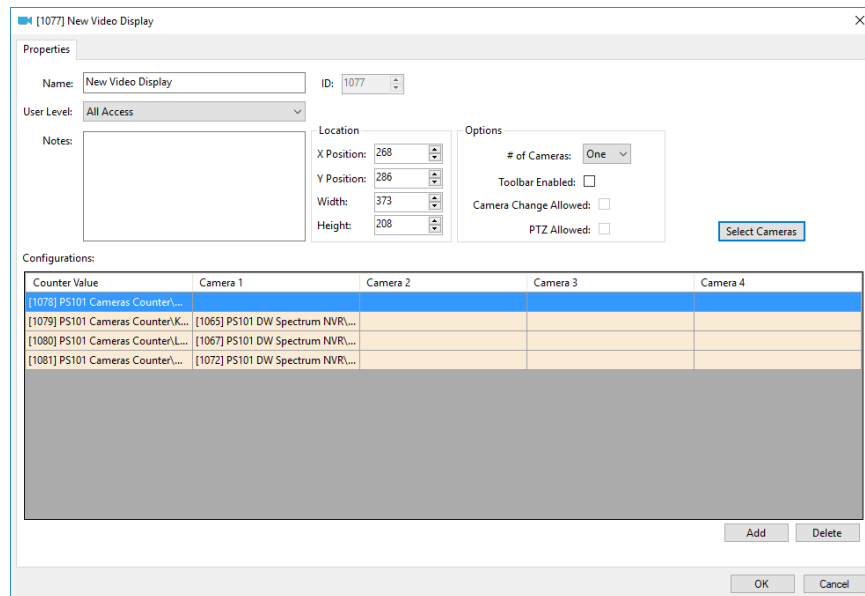


Figure 18 - Video Display properties dialog after **Select Cameras**

Now go to [Add Counter Value Screen Objects](#).

4.1.2 Programming by Hand

The following walks you through

- Adding the counter to the Tree,
- Adding counter values to that counter, and
- Adding a video display screen object and configuring it.

The last thing that must be done is adding counter value screen objects.

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4.1.2.1 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 . Expand the new **Counters** node to reveal the group node and the new counter.

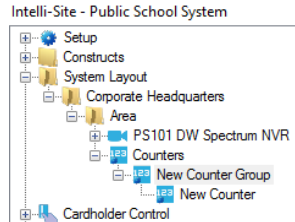


Figure 19- The expanded Counters node

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**. All of the other default values are fine.

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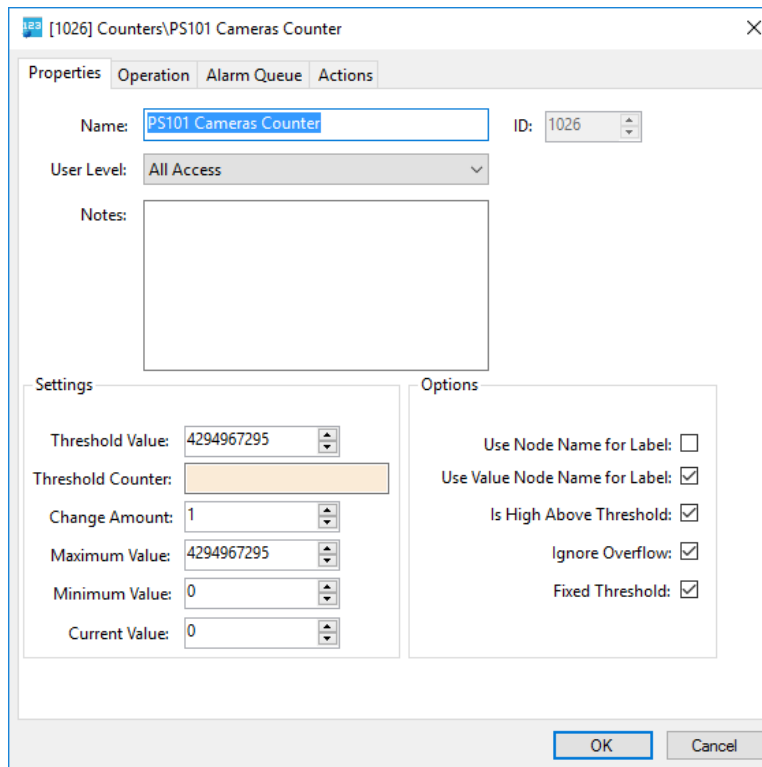


Figure 20 - Counter Properties Dialog

4.1.2.2 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 four (4) counter values for Disconnect, the Kinder Hall, Office, 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*.

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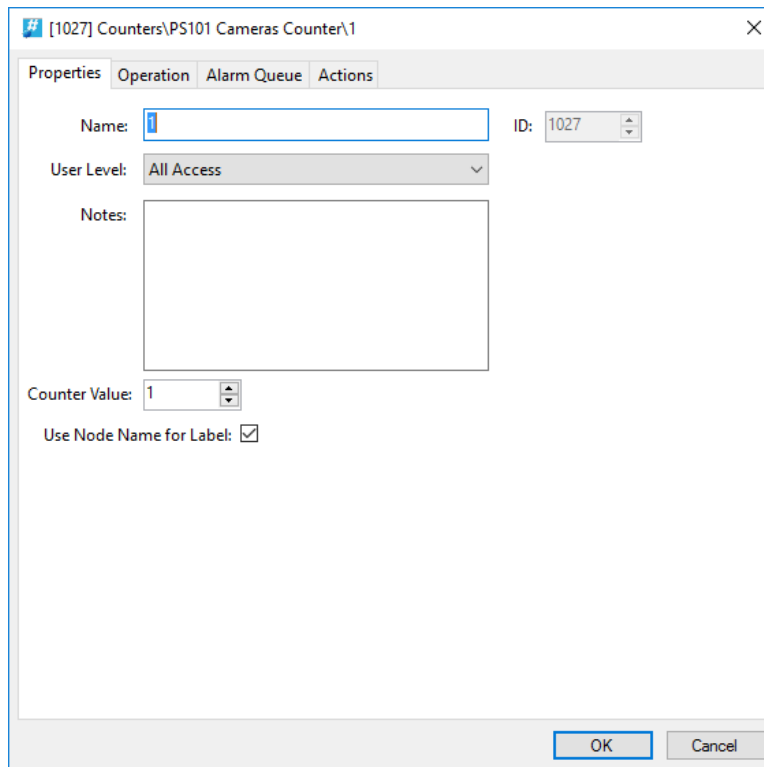


Figure 21 - Counter Value Node Properties dialog

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 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...*

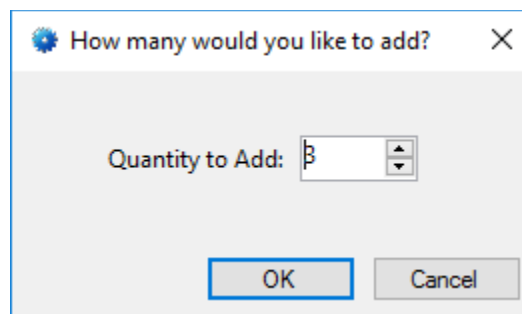


Figure 22 - How many would you like to add? dialog

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In the **How many would you like to add?** dialog, enter desired number. In the case of the example, we want three (3) more. Click the button.

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

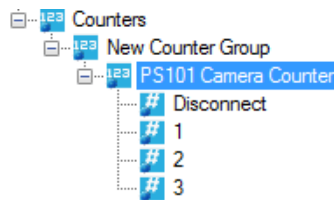


Figure 23 - The New Counter Value Nodes

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

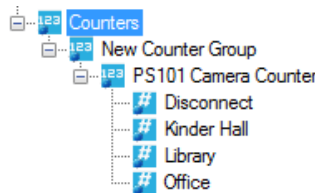






Figure 24 - The properly configured Counter Value Nodes

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

4.1.2.3 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.

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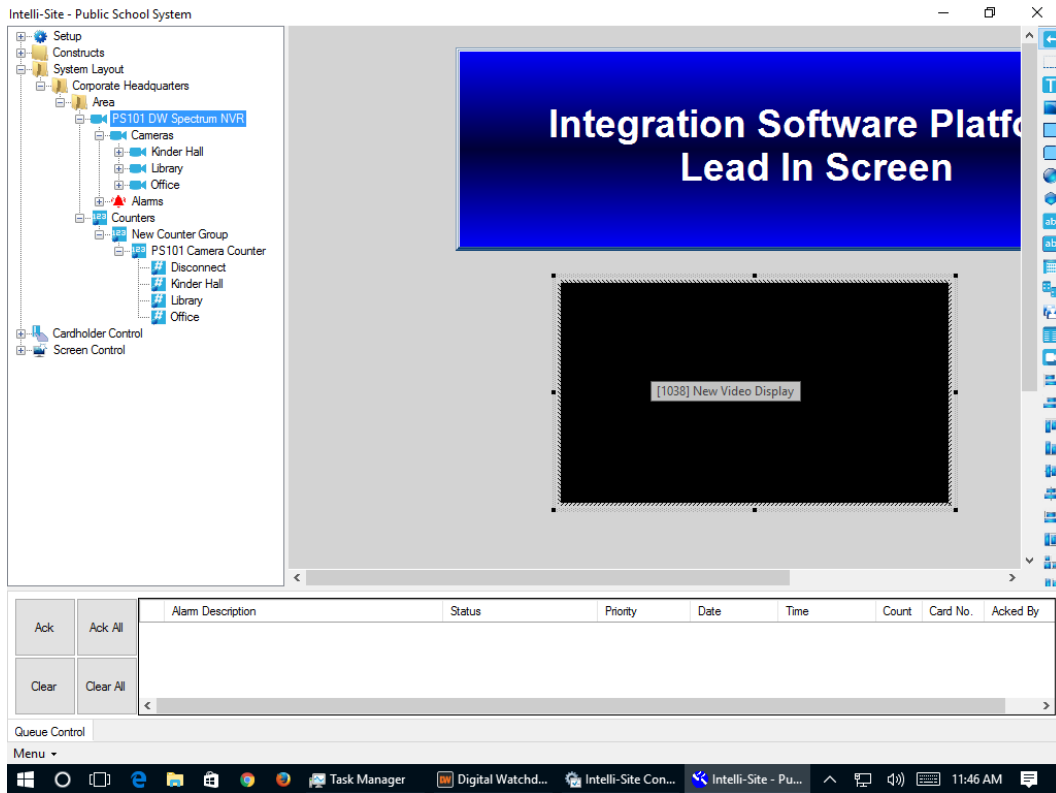


Figure 25 - Video Display Screen Object

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

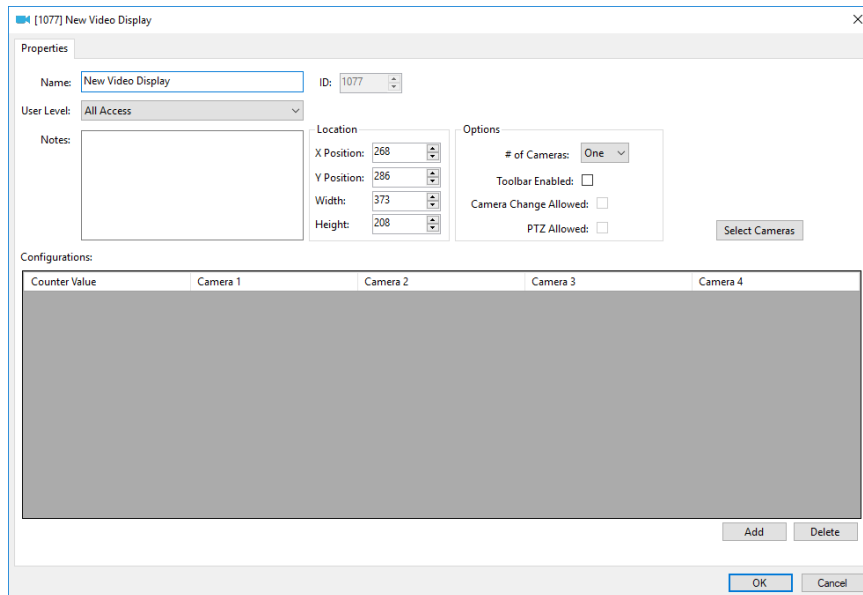


Figure 26 - Video Display Properties Dialog

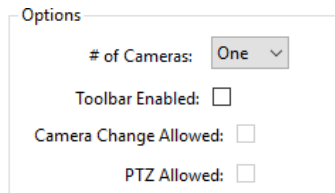
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Change the **Name** field to describe the purpose of this video display.

The **Location** group box contains the fields associated with the location and size of the video display screen object. These are updated when the object is dragged around the screen or when it is resized.

4.1.2.4 Options Group Properties

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



Options

of Cameras: One ▾

Toolbar Enabled:

Camera Change Allowed:

PTZ Allowed:

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

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

4.1.2.5 Configurations Table

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

Configurations:

Counter Value	Camera 1	Camera 2	Camera 3	Camera 4
---------------	----------	----------	----------	----------

Figure 27 - 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 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 to add a line to the **Configurations** table. 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.

DW Spectrum NVR Panel Guide

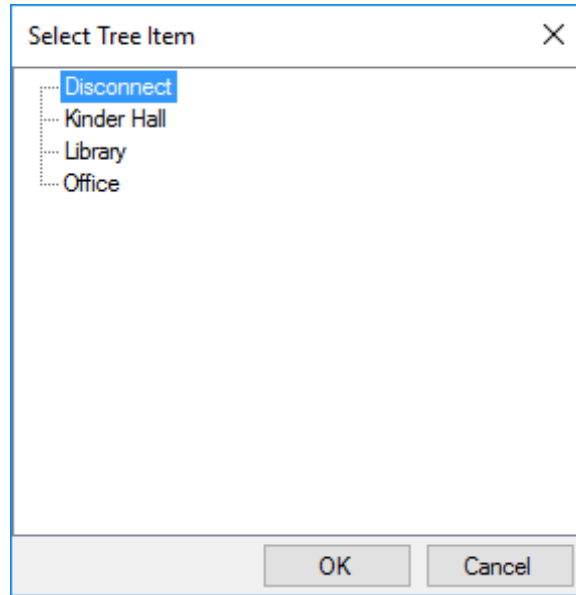
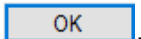


Figure 28 - Select Tree Item dialog for Counter Values

These are the counter values that we added in [Add Counter Values](#). Select the counter value that you want to use for the no cameras configuration. We called that one **Disconnect**. Click



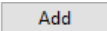
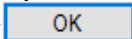
Configurations:

Counter Value	Camera 1	Camera 2	Camera 3	Camera 4
[1055] Counters\PS101 ...				

[1055] Counters\PS101 Cameras Counter\Disconnect

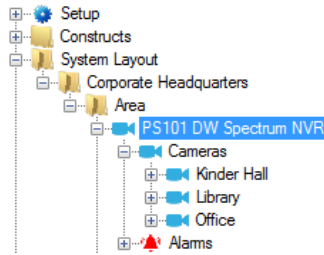
Add Delete

Figure 29 – 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 . Drag and drop the corresponding camera into the **Camera 1** cell.

DW Spectrum NVR Panel Guide

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



Configurations:

Counter Value	Camera 1	Camera 2	Camera 3	Camera 4
[1479] Counters\PS101 ...				
[1480] Counters\PS101 ...	[1461] PS101 DW Spectr...			

[1461] PS101 DW Spectrum NVR\Kinder Hall

Add Delete

Figure 30 - 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
[1479] Counters\PS101 ...				
[1480] Counters\PS101 ...	[1461] PS101 DW Spectr...			
[1481] Counters\PS101 ...	[1466] PS101 DW Spectr...			
[1482] Counters\PS101 ...	[1471] PS101 DW Spectr...			

Add Delete

Figure 31 - Example Configurations Table

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

DW Spectrum NVR Panel Guide

The last thing that must be done is adding counter value screen objects.

4.1.3 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.*

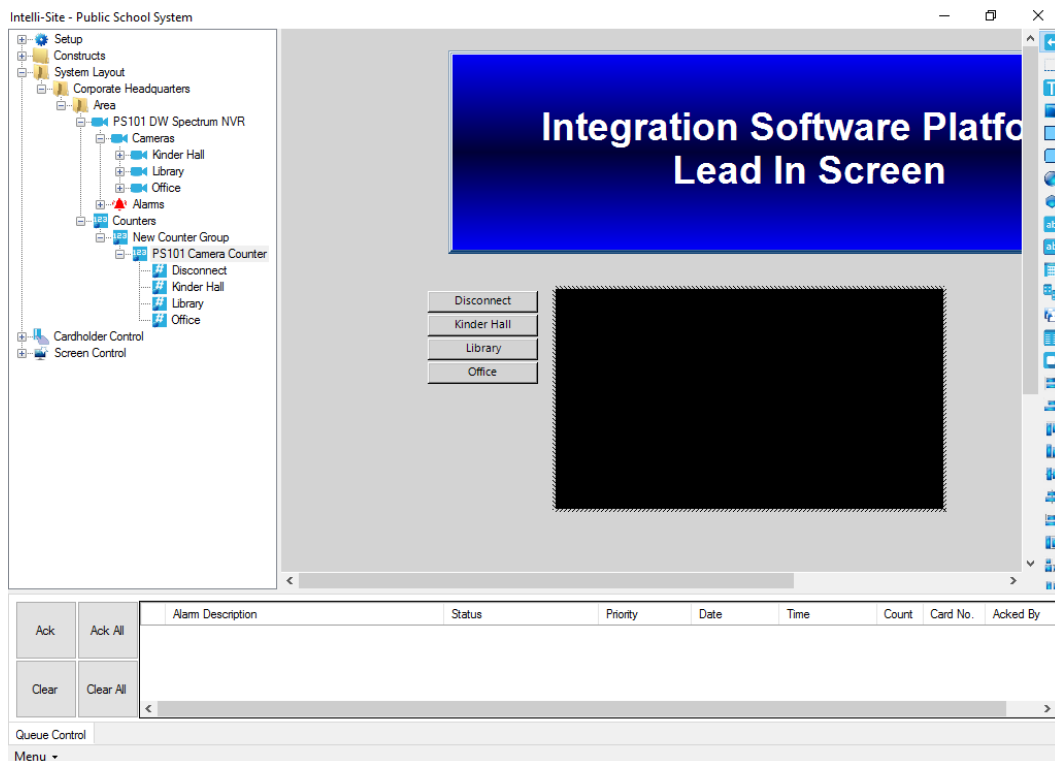


Figure 32 - Design View fully programmed

4.2 Live View

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

Note: *The Digital Watchdog driver must be enabled for video to display. See [Enable the Digital Watchdog driver](#).*

Click on the button to display the desired video stream.


DW Spectrum NVR Panel Guide




Figure 33 - Live View displaying video from Office

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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 Digital Watchdog driver node properties,
- The DW Spectrum NVR node properties, and
- The programming needed to stream video in  **Live View**

5.1 *Digital Watchdog Driver Node*

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

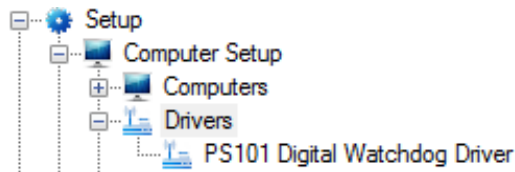


Figure 34 - Digital Watchdog driver node in the Project Node Tree

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

DW Spectrum NVR Panel Guide

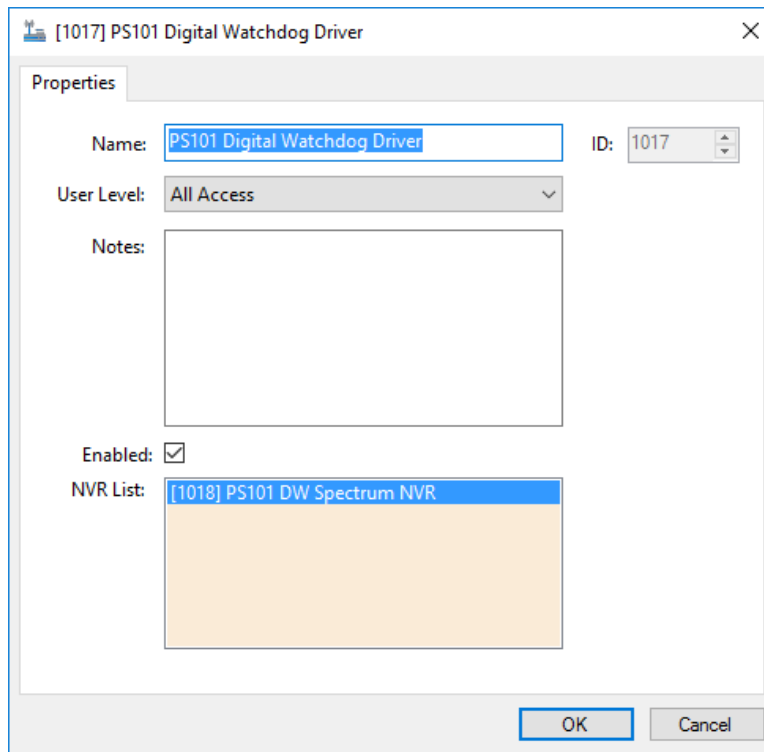


Figure 35 - Digital Watchdog driver properties dialog

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 DW Spectrum NVR nodes attached to this driver

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5.2 DW Spectrum NVR Panel

The DW Spectrum NVR panel node is found by expanding **System Layout** then the Site and Area to which the DW Spectrum 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**.

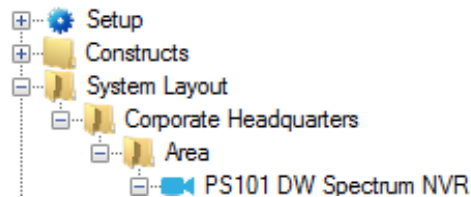


Figure 36 - The DW Spectrum NVR panel node in the Project Node Tree

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

- The properties of the DW Spectrum NVR node
- The configuration of the DW Spectrum NVR panel (a.k.a. **Quick Config** dialog)
- The child nodes of the DW Spectrum NVR panel

5.2.1 DW Spectrum NVR Node Properties

Right-click on the DW Spectrum 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 necessarily related to the configuration of the DW Spectrum NVR, but are related to how Intelli-Site handles the node.

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The screenshot shows a dialog box titled "[1018] PS101 DW Spectrum NVR". It has a "Properties" tab. The "Name" field contains "PS101 DW Spectrum NVR". The "ID" field is a dropdown menu showing "1018". The "User Level" field is a dropdown menu showing "All Access". The "Notes" field is a large empty text area. Below the "Notes" field is a "Virtual" checkbox, which is unchecked. To the right of the "Virtual" checkbox is a "Virtual Point" field with an orange background. At the bottom right of the dialog are "OK" and "Cancel" buttons.

Figure 37 - DW Spectrum 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

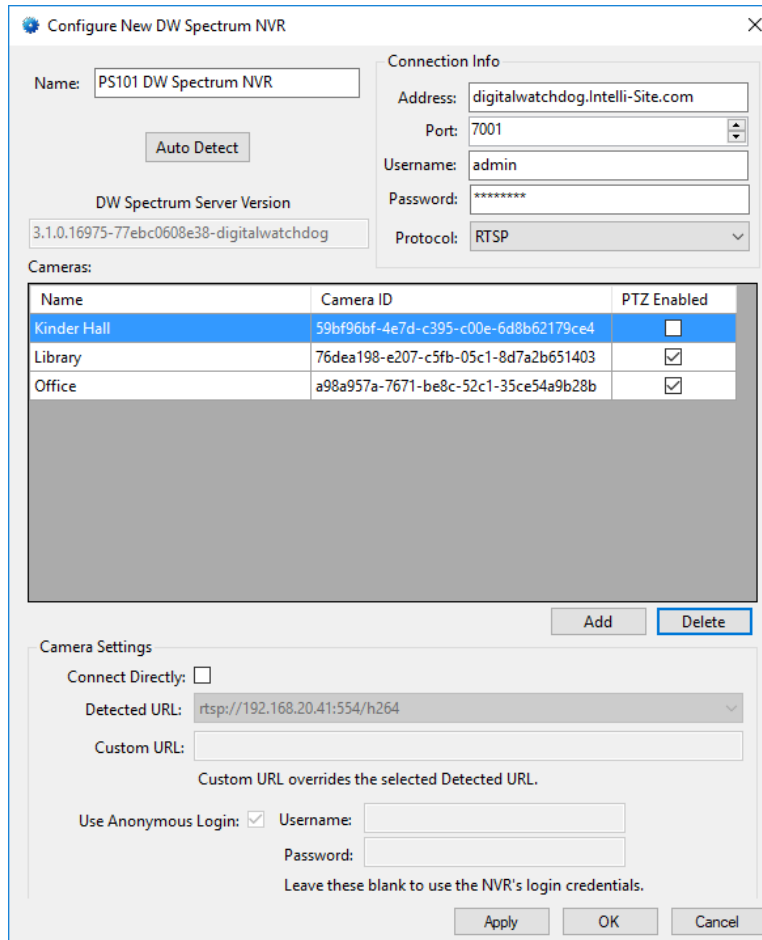
Virtual – check box; when checked the panel is virtualized, allowing the driver to be brought online without having the physical panel available

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

DW Spectrum NVR Panel Guide

5.2.2 DW Spectrum 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 DW Spectrum NVR panel node and select *Quick Config*.



Name	Camera ID	PTZ Enabled
Kinder Hall	59bf96bf-4e7d-c395-c00e-6d8b62179ce4	<input type="checkbox"/>
Library	76dea198-e207-c5fb-05c1-8d7a2b651403	<input checked="" type="checkbox"/>
Office	a98a957a-7671-be8c-52c1-35ce54a9b28b	<input checked="" type="checkbox"/>

Figure 38 - DW Spectrum NVR panel Quick Config dialog

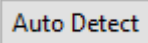
Name – edit box; the name of the DW Spectrum NVR panel; updating this field will change the name of the node; **Changes to this field are reflected on the Properties dialog.**

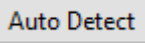
Address – edit box; the address of the DW Spectrum NVR panel, it can be the IP Address or the DNS name

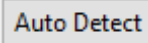
Port – numeric (default 7001); the TCP port of the DW Spectrum NVR; DW Spectrum uses 7001 as its default value, but it is configurable

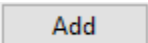
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Username and **Password** – edit box; the login credentials of the DW Spectrum NVR

 - button; used to find the cameras of the DW Spectrum NVR panel

DW Spectrum Server Version – edit box (disabled); displays the version of the DW Spectrum server; blank until an  is completed

Cameras – table; the cameras of the DW Spectrum NVR panel; lists the name, camera ID, and if PTZ is enabled; only the name and camera ID can be determined using ; PTZ Enabled must be set by hand

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

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

Camera Settings group box – contains the settings for the selected camera in the **Cameras** table

Connect Directly – check box; when checked, the software will connect directly with the camera using the specified URL

Detected URL – drop-down menu; the list of streaming URLs discovered during ; the selected URL is used if there is no **Custom URL** specified

Custom URL – edit box; a user-specified URL; when this field is not blank, it will override the selected URL in the **Detected URL** field

Use Anonymous Login – checkbox; when checked, the camera allows anonymous connections; therefore, the software will connect without supplying credentials; when clear, the software will use the specified credentials

DW Spectrum NVR Panel Guide

Username – edit box; the username to use when logging in to the camera; if blank, the software uses the **Username** in the **Connection Info** group box

Password – edit box; the password to use when logging in to the camera; if blank, the software uses the **Password** in the **Connection Info** group box

Note: *These settings allow the user to connect to any camera that supports RTSP streaming. This camera does not need to be managed by the DW Spectrum Server. Add the camera by hand, check **Connect Directly** and supply the Custom URL. As a rule of thumb, if the custom URL works in VLCPlayer, it will work in the software.*

5.2.3 DW Spectrum NVR Panel Child Nodes

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

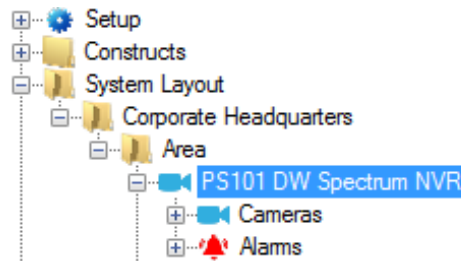


Figure 39 - DW Spectrum NVR panel child nodes

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.

DW Spectrum NVR Panel Guide

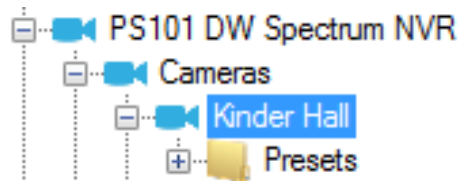


Figure 40 – DW Spectrum NVR Camera node and its child node

5.2.3.1.1 Camera Node Properties

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

[1285] PS101 DW Spectrum NVR\Kinder Hall

Properties

Name: ID:

User Level:

Notes:

Camera ID:

PTZ Enabled:

Connect Directly:

Connection Settings

Detected URL:

Custom URL:

Custom URL overrides the selected Detected URL.

Use Anonymous Login:

Username:

Password:

Leave these blank to use the NVR's login credentials.

OK Cancel

Figure 41 - Camera node Properties dialog

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

Camera ID – edit box; the ID of the camera

DW Spectrum NVR Panel Guide

PTZ Enabled – check box; check this box when the camera is a PTZ camera

Connect Directly – check box; when checked, the software will connect directly with the camera using the specified URL; when checked the **Connections Settings** fields will enable

Connection Settings group box – contains the settings to directly connect to the camera

Detected URL – drop-down menu; the list of streaming URLs discovered during ; the selected URL is used if there is no **Custom URL** specified

Custom URL – edit box; a user-specified URL; when this field is not blank, it will override the selected URL in the **Detected URL** field

Use Anonymous Login – checkbox; when checked, the camera allows anonymous connections; therefore, the software will connect without supplying credentials; when clear, the software will use the specified credentials



Username – edit box; the username to use when logging in to the camera; if blank, the software uses the **Username** in the **Connection Info** group box

Password – edit box; the password to use when logging in to the camera; if blank, the software uses the **Password** in the **Connection Info** group box

Note: *These settings allow the user to connect to any camera that supports RTSP streaming. This camera does not need to be managed by the DW Spectrum Server. Add the camera by hand, check Connect Directly and supply the Custom URL. As a rule of thumb, if the custom URL works in VLCPlayer, it will work in the software.*

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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. Intelli-Site loads all of the presets from DW Spectrum if there are any defined and adds them as preset nodes. These nodes 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.

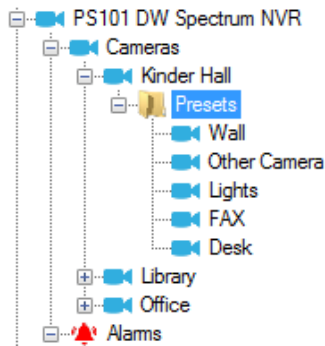







Figure 42 - Presets for the Kinder Hall camera

Presets are used in  **Video View** and  **Live View**.  **Video View** is simple and straight forward; whereas,  **Live View** requires some programming in  **Design View**.

5.2.3.1.2.1 Preset Node Properties

Each Preset node is a GenProto node. A GenProto node is an I/O Point with additional fields that can be used generically; hence, the name GenProto, generic protocol node.

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The screenshot shows a dialog box titled "[1463] Kinder Hall\Window" with a close button in the top right corner. The dialog has four tabs: "Properties", "Operation", "Alarm Queue", and "Actions". The "Properties" tab is active. It contains the following fields:

- Name:** A text input field containing "Window".
- ID:** A spin box containing "1463".
- User Level:** A dropdown menu showing "All Access".
- Notes:** A large empty text area.
- Address:** A text input field containing "{b2460108-9b36-44a4-aecd-f6c2d08af1fc}".
- Protocol:** An empty text input field.
- Node Type:** A dropdown menu showing "Preset".


At the bottom right of the dialog are "OK" and "Cancel" buttons.

Figure 43 - Preset node properties dialog

The fields that define the specific preset are the **Address** and **Node Type** fields. The value for **Node Type** defines this node as a preset node. The **Address** is the address of the camera as defined by DW Spectrum. Do not modify these fields. Doing so will render them useless. Intelli-Site loads the presets automatically.

For more detailed information on the GenProto node, see the Intelli-Site User's Guide.

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.

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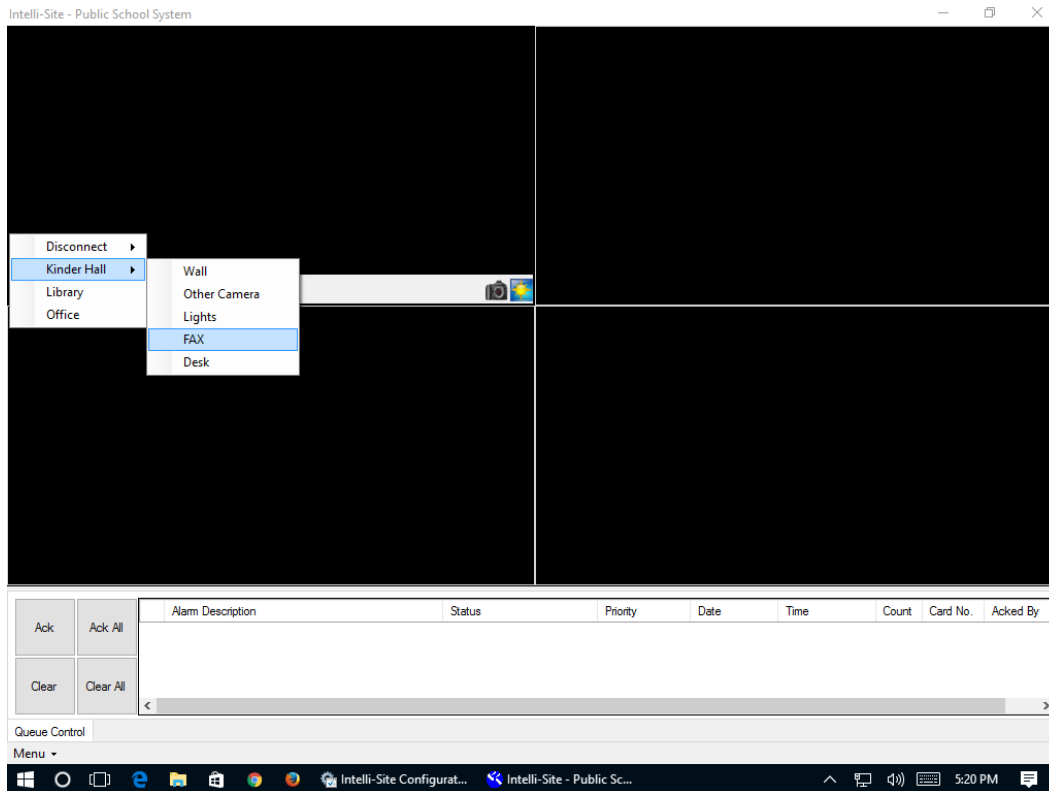


Figure 44 - Example Camera Presets in Video View


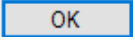
5.2.3.1.2.3 Using Presets in Live View

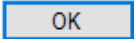
To use a preset in **Live View** requires a bit of programming in **Design View**. When the preset node is the target of a *SendCommand*, the Digital Watchdog driver sends the preset request to the DW Spectrum NVR. This command can be in any action grid that allows a *SendCommand*. To illustrate, let's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

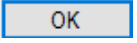
First, a video display screen object must be added to the Project. This may seem like a redundant statement because why wouldn't there be a video display? The user is most likely viewing the video stream when there is a need to send the camera to a preset. In fact, the video display object was probably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

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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 . 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 . 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  to save the programming.

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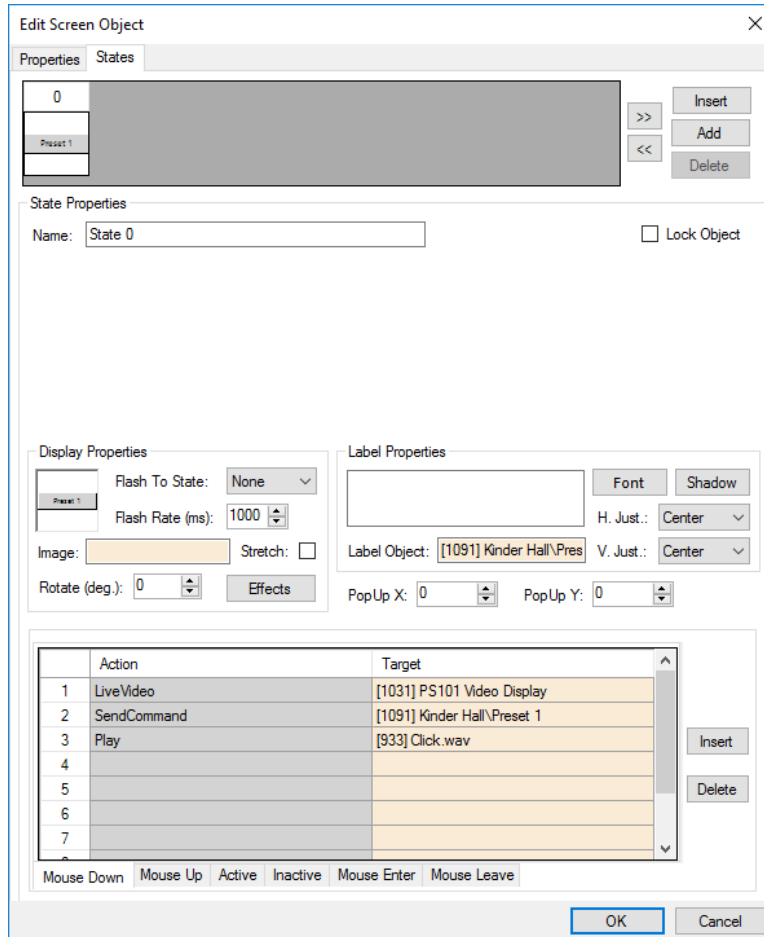


Figure 45 - Programming using Preset node

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



5.2.3.2 Alarms

At this time the **Alarms** node is a placeholder for future growth. No alarms are reported by Intelli-Site because the DW Spectrum NVR implementation does not maintain a connection to the panel, nor does it receive any alarms or events from it.




The alarms for the DW Spectrum 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 and the panel is not virtualized). The point is low when the panel is online. Like the other points of the DW Spectrum NVR panel, this point is a GenProto node.

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Revision History

- 2017-06-22 Initial Creation
- 2017-06-30 Updated the Counter screen captures and presets
- 2017-07-14 Updated a few screen captures because the node names were incorrectly displayed in the title of the properties or in the dropbox.
- 2018-03-27 Added the Select Cameras button, updated the Camera ID to the DW Spectrum Camera ID instead of hardware ID
- 2018-06-29 Add Camera Settings to Quick Config and Connection Settings to Camera Properties dialog