

Documentation

# Vicon Crosspoint Matrix Switcher RTU Guide Version 3.x

# **OSSI**

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# **Intelli-Site**

## **Security Management Software Vicon Crosspoint Matrix Switcher RTU Guide**

PC Software RTU Interface Guide  
For Windows 7 SP1, 2008 R2 SP1, XP SP3 & 2003 SP2

Version 3.x  
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## **Section 1 – Introduction**

This section describes the following:

- Overview
- Technical Support Assistance

### ***Overview***

The Vicon Crosspoint Switcher RTUs (Receiver/Transmitter Units) are the Intelli-Site software representations of the Vicon Nova Series: V1344, V1422, V1466A and V1500 Crosspoint Matrix Switchers (Switchers). For purposes of this document, the term RTU is synonymous with a Vicon Nova Series Crosspoint Matrix Switcher.

## ***Technical Support Assistance***

### **OSSI Headquarters**

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### **Technical Support**


Technical support is available via Telephone, Fax or Email. Contact OSSI 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.

E-Mail: [support@ossi-usa.com](mailto:support@ossi-usa.com)

Fax: 262-522-1872 (Attention Technical Support)

Local: 262-522-1870

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

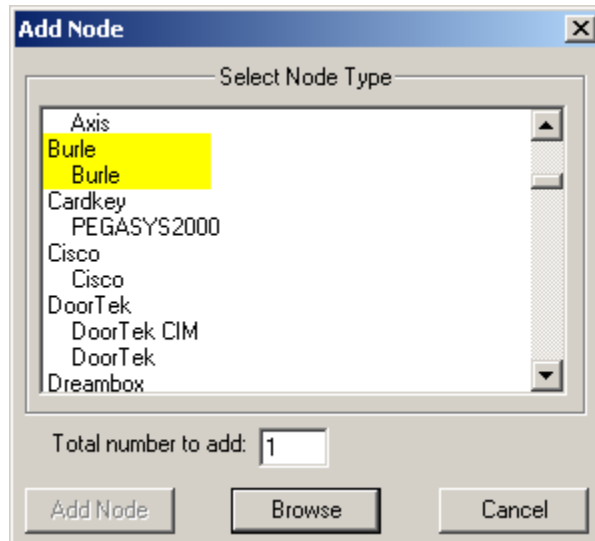
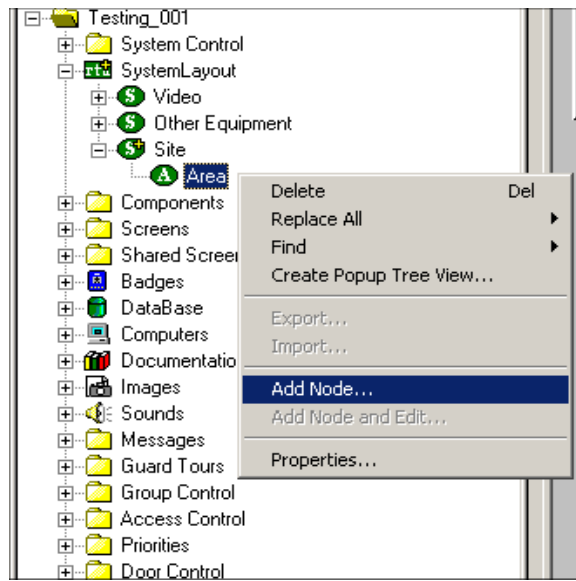
- Product version number, found by selecting the **About**  button from the Intelli-Site Menu Application Bar.
- Product serial number used for registration.
- The type of computer being used including, operating system, processor type, speed, amount of memory, type of display, etc.
- Exact wording of any messages that appear on the screen.
- What was occurring when the problem was detected?
- What steps have been taken to reproduce the problem?

## Section 2 – Vicon Switcher Setup (Design Mode)

This section discusses the setup of Vicon Switchers in the project in Graphic Design mode.

### ***Adding Vicon Switcher Nodes***

Vicon Switcher nodes are added at the Area level under System Layout. (See figures below):



The Vicon RTU allows for up to 254 Cameras and 254 Monitors, up to 16 Presets (total), and up to 254 dry contact Alarms and 254 Video Loss Alarms.

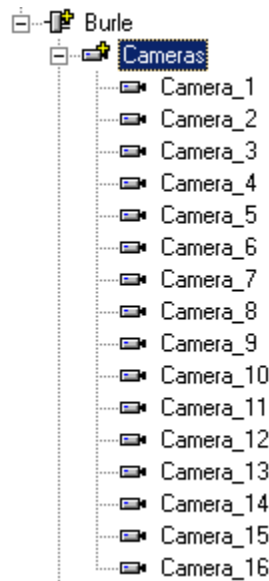
## ***Configuring the Vicon Switcher Node***

After a Vicon node has been added to an Area it needs to be configured. The following section details the configuration options available:

**Note: Much of the configuration is dependent upon various settings options available to the user via the switcher's configuration software. A description of these options is beyond the scope of this document. The programmer should consult the appropriate Vicon documentation for detailed information on these configuration options.**

## **Configuring Cameras**

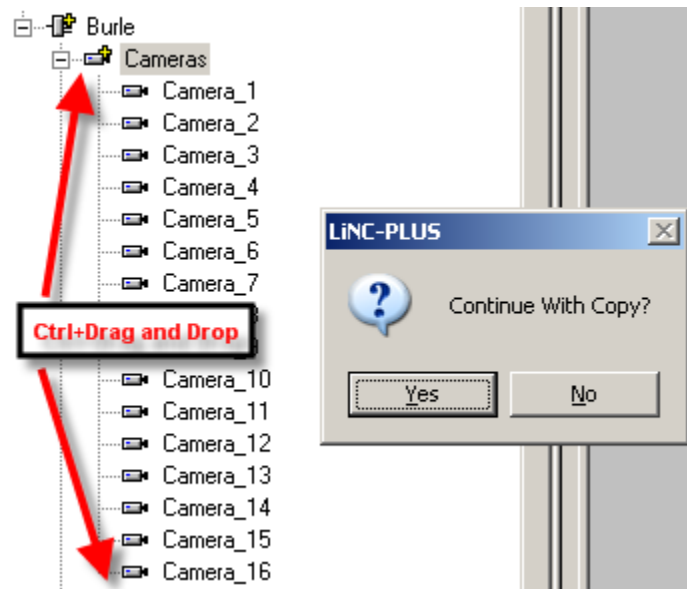
Expand the Cameras Node as shown in the figure below:



When the Vicon node is initially added to the tree, the Cameras Node is pre-populated with 128 Cameras. This node can accommodate Cameras 1 through 254. To add a camera:



1. Left-Click on any camera in the list, then drag-and-drop your selection on to the Cameras node while holding the Control-key (CTRL+Drag-and-Drop).
2. Confirm the copy and this action will cause a copy of your selection to be added to the tree as shown below:



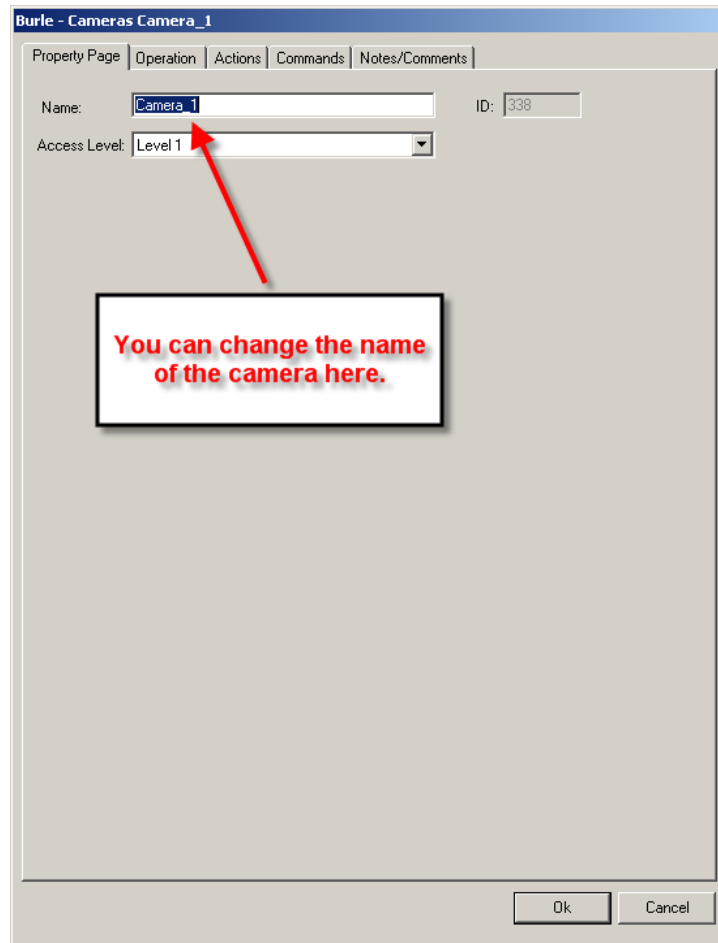

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**Note: The position of the Camera node in the tree corresponds to the physical camera input number on the Switcher: For Example: Camera\_16 corresponds to the 16<sup>th</sup> video input on the switcher.**

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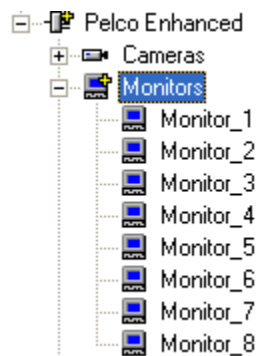
Camera nodes (and their preset subnodes) can be configured just like any other I/O point in the system. To configure the properties of a Camera node:

1. Right-Click on any Camera node in the list then select **Properties...** from the configuration dialog.
2. Configuration of node properties is covered in detail in the Intelli-Site Reference Guide under **Types of I/O Points and their Functionality** (Section 3.0).



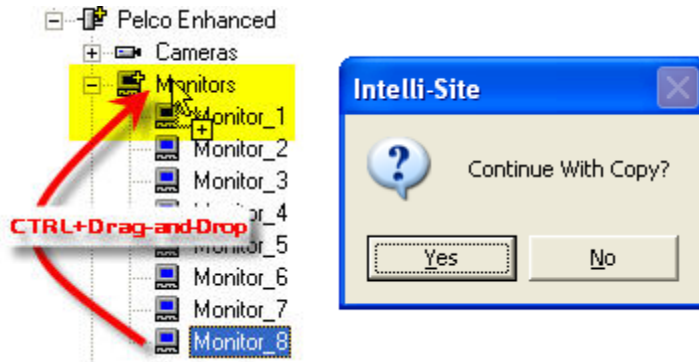
## Configuring Monitors

Expand the Monitors Node as shown in the figure below:



When the Vicon node is initially added to the tree, the Monitors Node is pre-populated with 24 Monitors. This node can accommodate Monitors 1 through 254. To add a monitor:

1. Left-Click on any monitor in the list, then drag-and-drop your selection on to the Monitors node while holding the Control-key (CTRL+Drag-and-Drop).
2. Confirm the copy and this action will cause a copy of your selection to be added to the tree as shown below:




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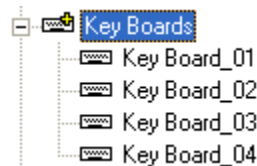
**Note: The position of the Monitor node in the tree corresponds to the physical monitor output number on the Switcher: For Example: Monitor\_6 corresponds to the 6<sup>th</sup> video output on the switcher.**

---

Monitor nodes can be configured just like any other I/O point in the system. Configuration of node properties is covered in detail in the Intelli-Site Reference Guide under **Types of I/O Points and their Functionality** (Section 3.0).

## Configuring Keyboards

Expand the Keyboards Node as shown in the figure below:



When the Vicon node is initially added to the tree, the Keyboards Node is pre-populated with 4 Keyboards. This node can accommodate Keyboards 1 through 254. To add a keyboard:

3. Left-Click on any Keyboard in the list, then drag-and-drop your selection on to the Keyboards node while holding the Control-key (CTRL+Drag-and-Drop).
4. Confirm the copy and this action will cause a copy of your selection to be added to the tree as shown below:



---

**Note: The position of the Keyboard node in the tree corresponds to the physical Keyboard output number on the Switcher: For Example: Keyboard\_4 corresponds to the 4<sup>th</sup> keyboard on the switcher.**

---

## Configuring System Alarms

When the Vicon node is initially added to the tree, the System Alarms Node is pre-populated with 2 System Alarms. These are used for determining system (switcher) on-line state.

## Configuring Alarms

When the Vicon node is initially added to the tree, the Alarms Node is pre-populated with 2 Alarms: System and Off-Line.

## Programming Examples

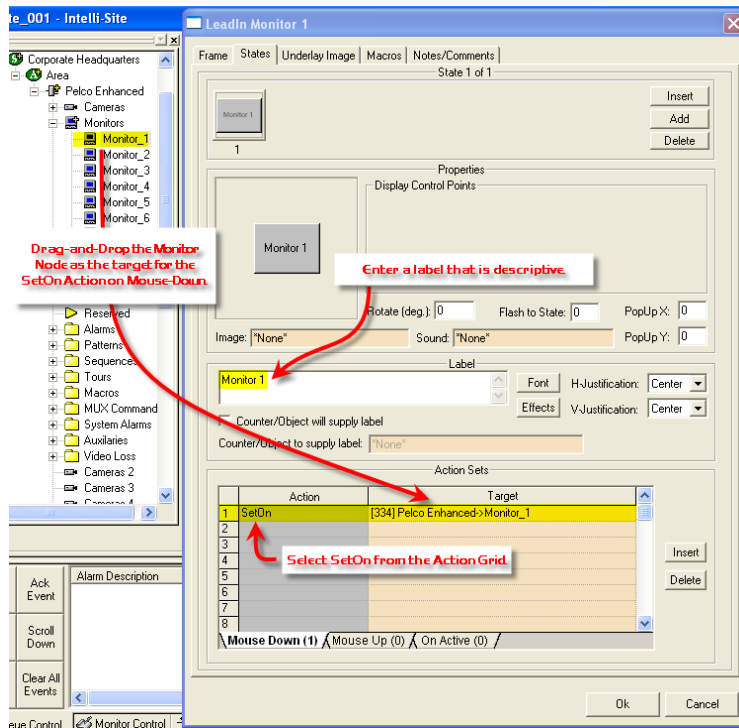
The following section describes some basic programming for Vicon Switcher RTU functionality in Run Mode. The first step in adding Vicon Switcher RTU functionality is to understand the concept of a “hot” switcher object. In order to execute a camera switch to a particular monitor, the user must identify the currently-selected elements – these are the “hot” objects. The Action SetOn is used to select the “hot” objects and then another SetOn is used to execute the command against a special target called Camera Select (Camera Sel). The Camera Sel target acts, essentially as the Enter Key on the keyboard. The following table details the sequence:

Action	Target	Result
SetOn	Monitor_n	Sets Monitor_n as the “hot” monitor.
SetOn	Camera_n	Sets Camera_n as the “hot” camera.
SetOn	Camera Sel	Sends the command – Switch Camera_n to Monitor_n.

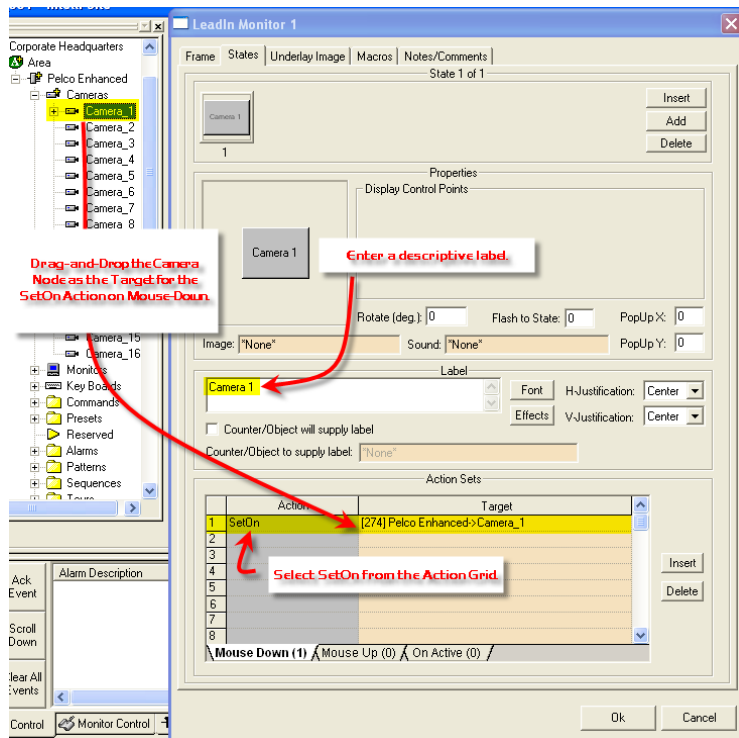
### Camera-Monitor Switching – Discrete Controls

In this programming example we will build a simple, camera-to-monitor switch control using discrete buttons.

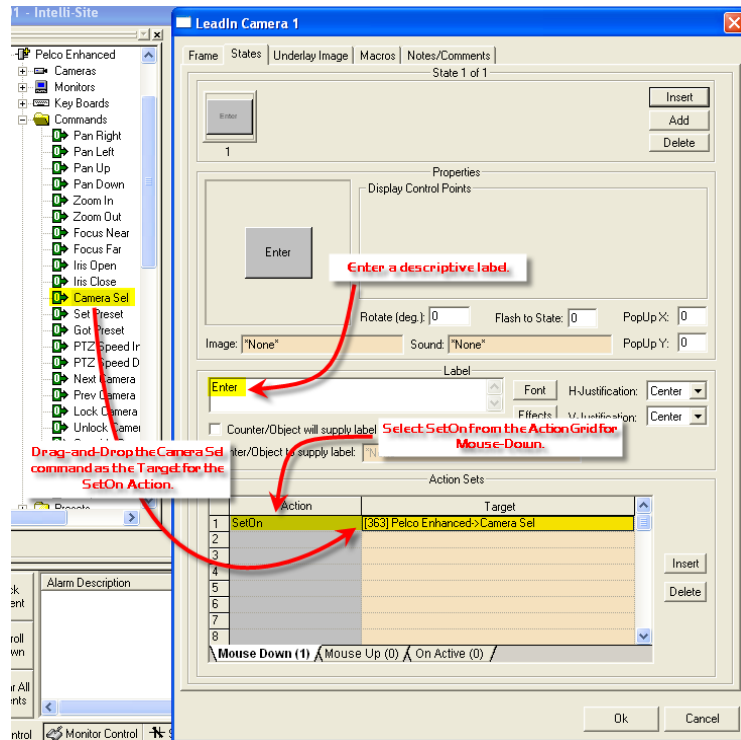
1. In Design Mode Create a *SetOn Monitor* button (screen object) using the drawing tools.
2. Modify the properties of the button as shown below:



3. Create a *SetOn Camera* button and modify the properties of the button as shown below:



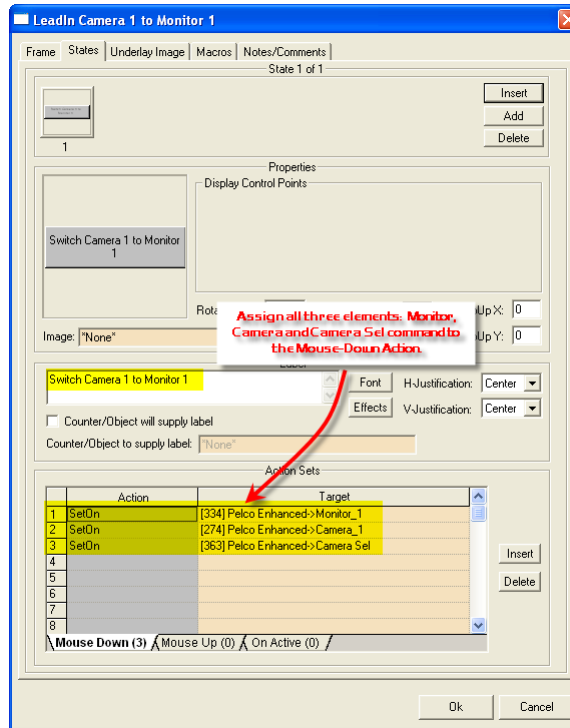
4. Create a *Camera Select (Enter)* button and modify the properties of the button as shown below:



## Camera-Monitor Switching – Combined Control

In this programming example we will build a simple, camera-to-monitor switch control using a single button.

1. In Design Mode Create a *Camera-Monitor Switch* button (screen object) using the drawing tools.
2. Modify the properties of the button as shown below:

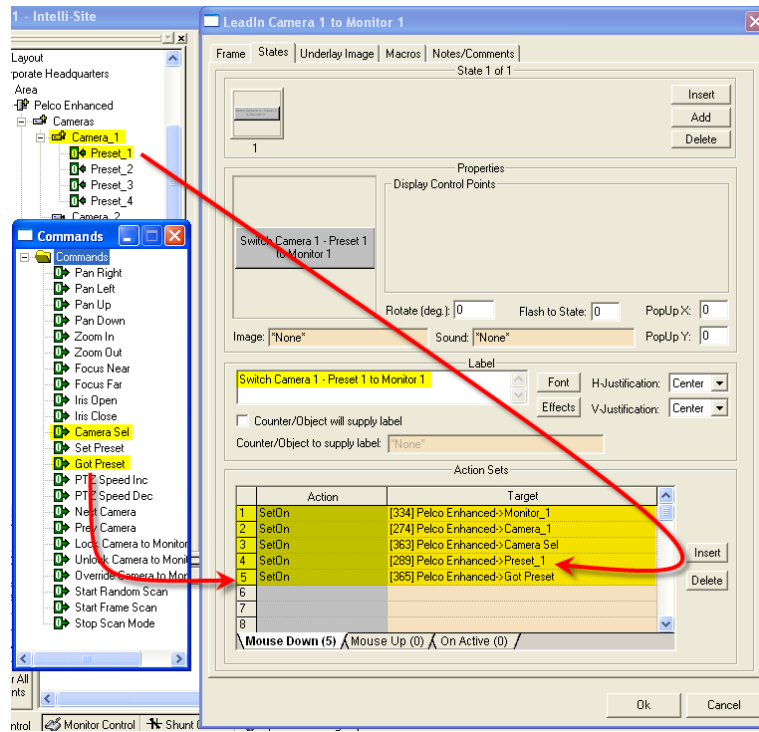


## Camera-Monitor Switching With Presets – Combined Control

In this programming example we will build a simple, camera-with-preset-to-monitor switch control using a single button.

1. In Design Mode Create a *Camera-Monitor Switch* button (screen object) using the drawing tools.
2. The reason a SetOn Preset action/target is required is to set the “hot” preset. The SetOn Got Preset (command) action/target combination works something like the SetOn Camera Sel (command): it executes the action.
3. Modify the properties of the button as shown below. Note the addition of the Preset and the Got Preset (command) Targets in the Action Grid for Mouse-Down:

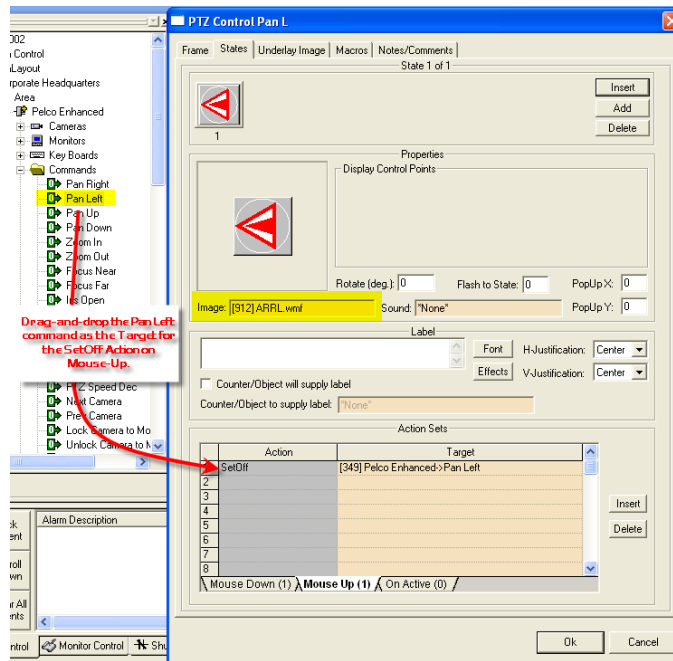
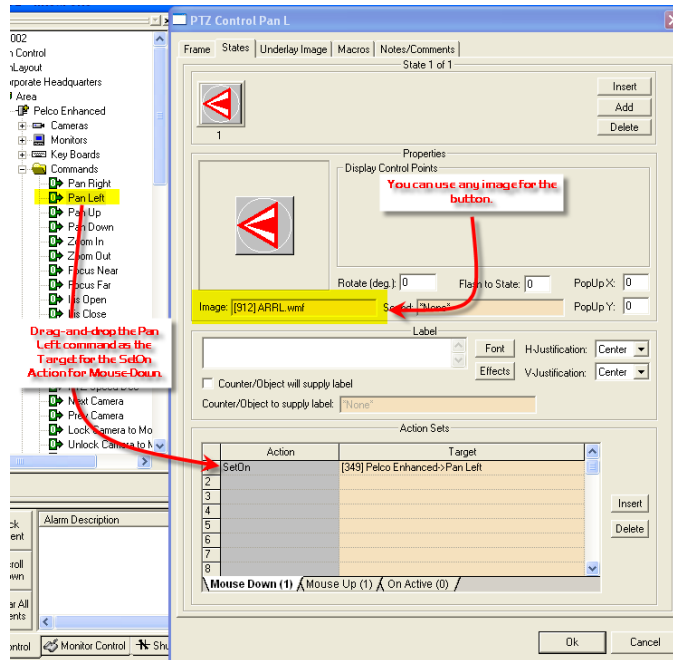




## Pan-Tilt-Zoom and Focus (PTZF) Control

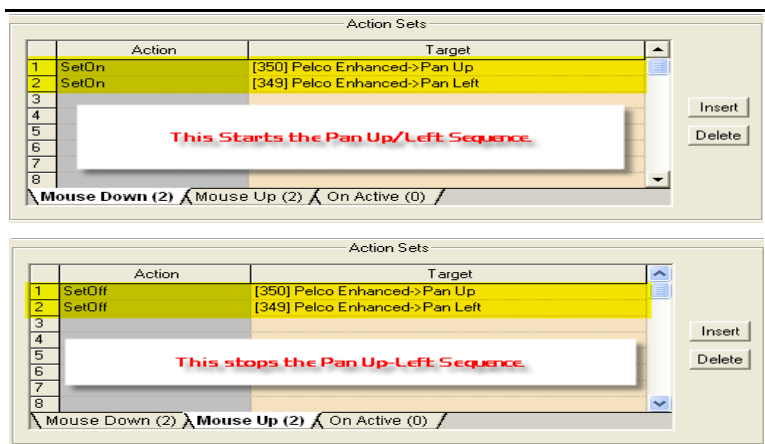
In this programming example we will build a typical PTZF control button.

1. In Design Mode Create a *Pan Left* button (screen object) using the drawing tools.
2. Modify the properties of the button as shown below:



In the above example the SetOn Action on Mouse-Down will start the Pan Left and the SetOff Action on Mouse-Up will stop the Pan Left. The same method can be used for all PTZF functions.

**Note: In order to Pan diagonally you must SetOn a combination of Up-Down/Left-Right Pan commands. Here's an example of the programming required for a Pan UP-Left diagonal:**



### Other Functions In the Commands Node

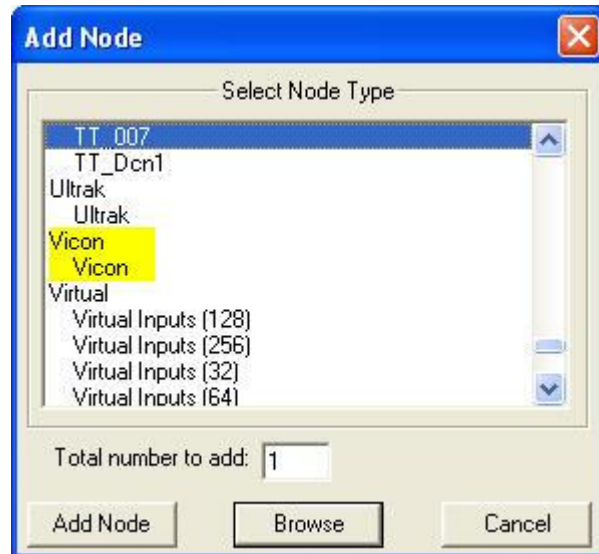
The following table lists the other commands available in the Commands Node and a description of their functions. All of the commands may be assigned as targets to SetOn or SetOff Actions:

Command	Function
Zoom In	Start variable zoom to telephoto.
Zoom Out	Start variable zoom to wide.
Focus Near	Start variable focus to close-in.
Focus Far	Start variable focus to far-field.
Iris Open	Start variable iris to open.
Iris Close	Start variable iris to close.
Set Preset	Sets the current PTZF setting on the "hot" camera to the current preset.
Got Preset	Gets the current preset.
PTZ Speed Inc	Increase the PTZF speed.
PTZ Speed Dec	Decrease the PTZF speed.

## Section 4 – Vicon Driver Setup

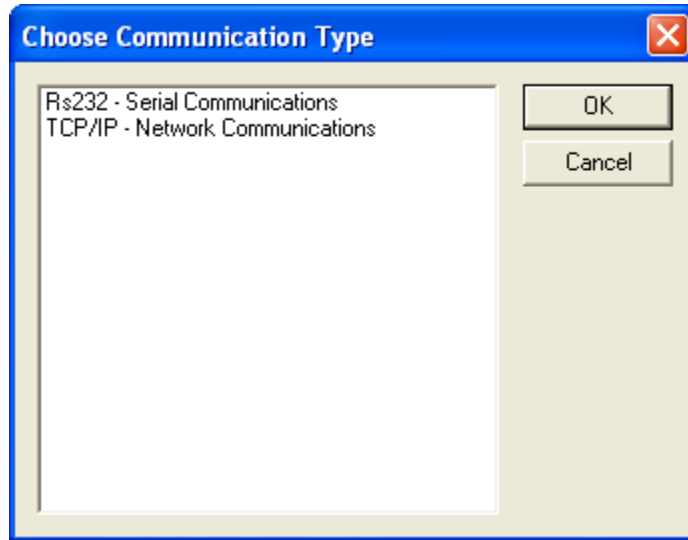
This section discusses the setup of the Vicon Driver.

Open the Driver Service window and select the Add button:



Select the 'Vicon' item and select OK.

Select RS-232 – Serial Communications if the Vicon switcher is connected via serial port. Select TCP/IP – Network communications if the Vicon switcher is connected via LAN. Select OK to continue the configuration.



Server Tab – Configure the fields on the Server Tab as follows:

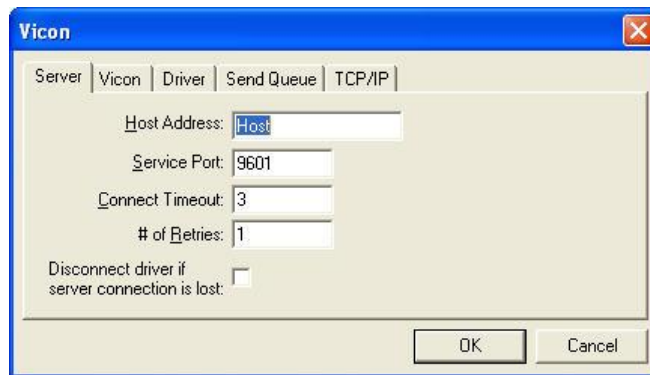
Host Address: Enter the name of the computer that is running the Server.exe application.

Service Port: This number’s last digit must match the last digit of the project file name, i.e.: If your project file is named Test\_001, and your base port setting is 9600, then the Service Port number needs to be 9601.

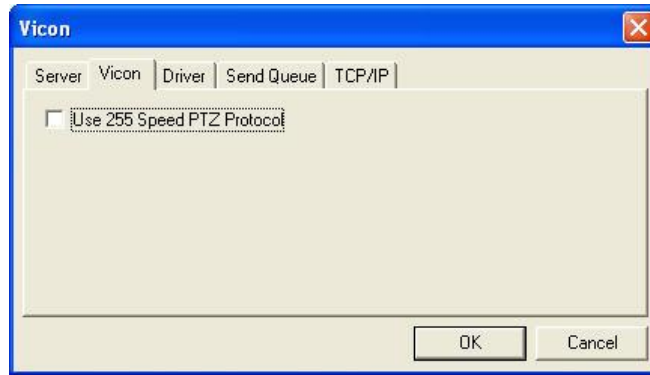
Connect Timeout: Enter the time duration (in seconds) that, when exceeded, would indicate a connection timeout.

# of Retries: Enter the number of retry attempts to be made upon loss of communications.

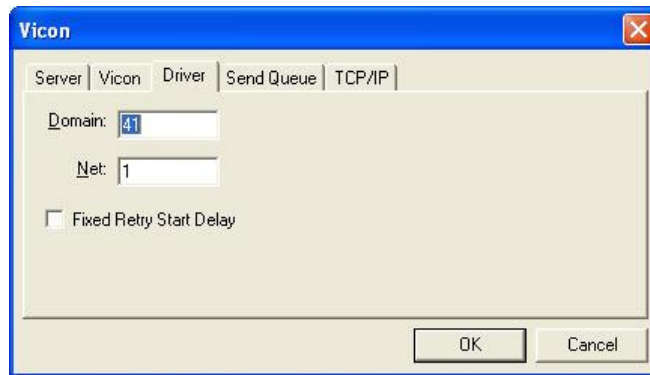
Disconnect driver if server connection is lost: Check this box if you want to disconnect the driver in the event you lose communications with Server.exe.



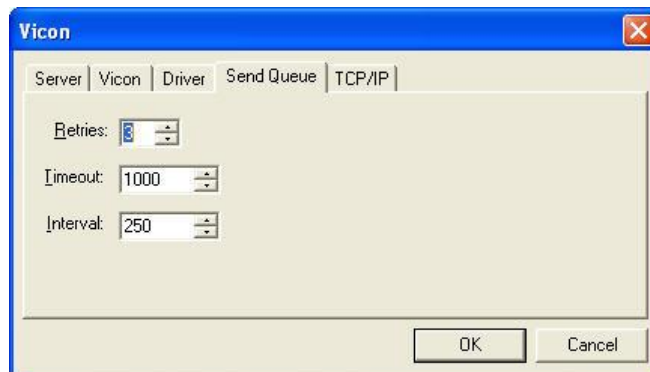
Vicon Tab – select the Use 255 Speed PTZ Protocol if your PTZ Controllers have this capability.



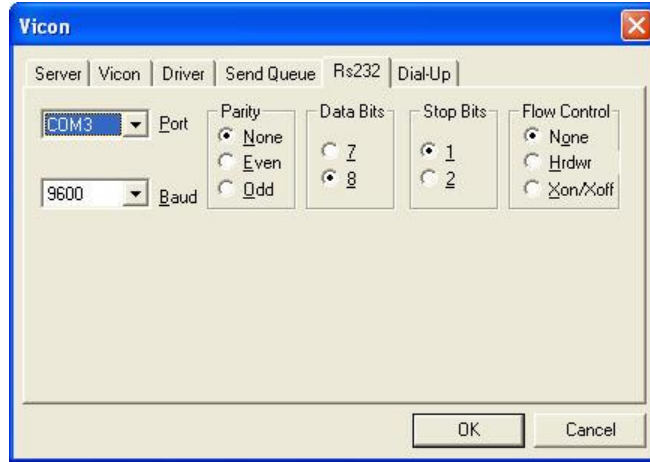
Driver Tab - Set the Domain and Net to match the Domain and Net of the Vicon RTU in the tree.



Send Queue Tab - These settings should not be changed.

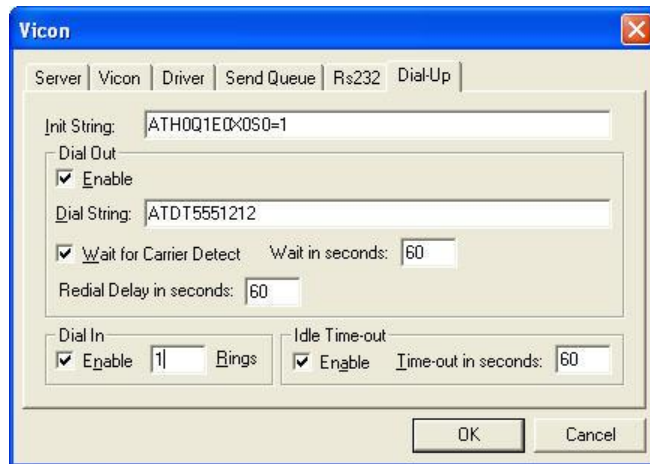


Rs232 Tab - Adjust communications port settings to match the settings of the switcher.





Dial-Up Tab – Adjust dial-up communications settings if the switcher is connected via modem.



TCP/IP Settings – Set the LAN parameters if the Vicon is connected via Ethernet.

