



VSS-4000 Series
View Station Software Guide

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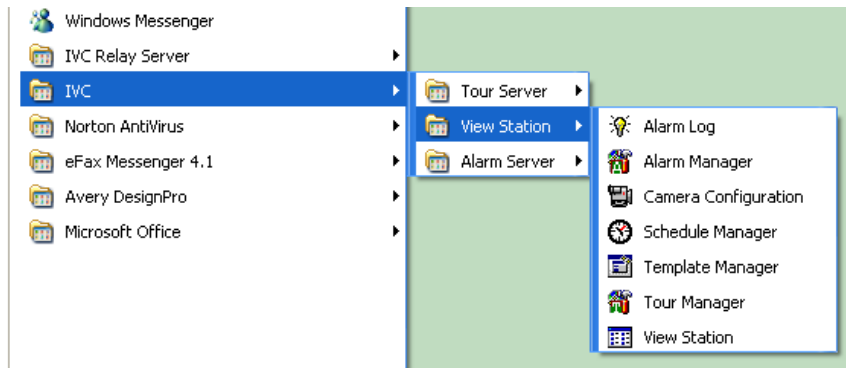
View Station Software Overview

The View Station Software provides a number of functions including:

- Custom Video Display Panels with up to 25 video feeds.
- Custom Control Panels to manage the video system and other functions.
- Camera Tours
- Scheduling of various events such as alarm sensors, snapshots, video storage, camera tours, and more.
- Alarm Management of various alarm functions and a comprehensive alarm log.

The View Station requires an IVC Relay Server to be operating. The Relay Server is where the IP cameras and video storage functions are configured as well as the panoramas and preset views.

IVC View Station Modules



Alarm Log provides a list of alarms with date, time, and location, the alarm source, notes regarding the alarm resolution, video clips, and snapshots. Requires the Alarm server to be running.

Alarm Manager enables alarms to be turned on and off. Requires the Alarm server to be running.

Camera Configuration conveys camera information from the Relay Server to the View Station. It enables the cameras to be grouped by location, department, and other criteria. This is accessed during system set-up

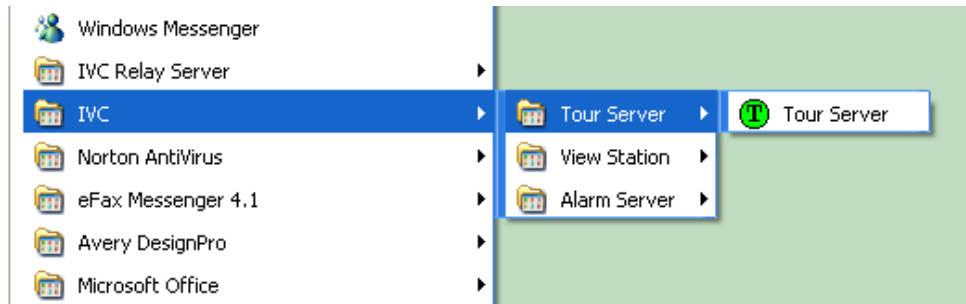
Schedule Manager Schedules must be configured before “Actions” like Camera Tours can be started.

Template Manager enables a variety of user interface templates to be constructed. This will be accessed during set-up.

Tour Manager This is where camera tours and other **Actions** are configured. Note that preset views must be configured in the **Relay Server** before they can be incorporated into a Tour.

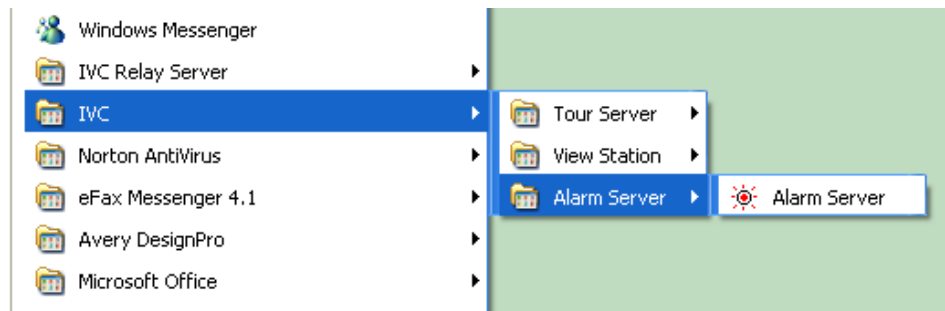
View Station This is the access to the various user interfaces.

Tour Server Module



The Tour server enables the creation of camera tours whereby the cameras can proceed from preset view to preset view with settable dwell times and with the capture of Snapshots or Video Clips. A Dwell Time can be entered that automatically resumes the Tour after an operator intervention. **Note:** Tour Server must be running to use the Tour Manager or the Scheduler functions.

Alarm Server Module



Alarm Server enables the video system to respond to alarms generated in the cameras or to alarms generated by other equipment such as security sensors. Generally, external alarms must be in the form of contact closures, typical of security devices. The alarm server provides an alarm log, the ability to launch custom “alarm views”, to sound audible notification, to indicate the alarmed video stream on multiple stream displays, to trigger various video functions such as one or more preset views, video recording, snapshots, etc, and to trigger URLs, Windows commands to control third party hardware and software functions.

VSS-4000 Series - View Station

Professional looking and easy-to-use operator interfaces with multiple live and recorded views, video system controls, auxiliary equipment or 3rd party software controls can be constructed in the VSS View Station. These displays can be scaled-up to accommodate any number of cameras, and they can be changed at any time to meet evolving requirements, and this can all be done in minutes by anyone using this manual.

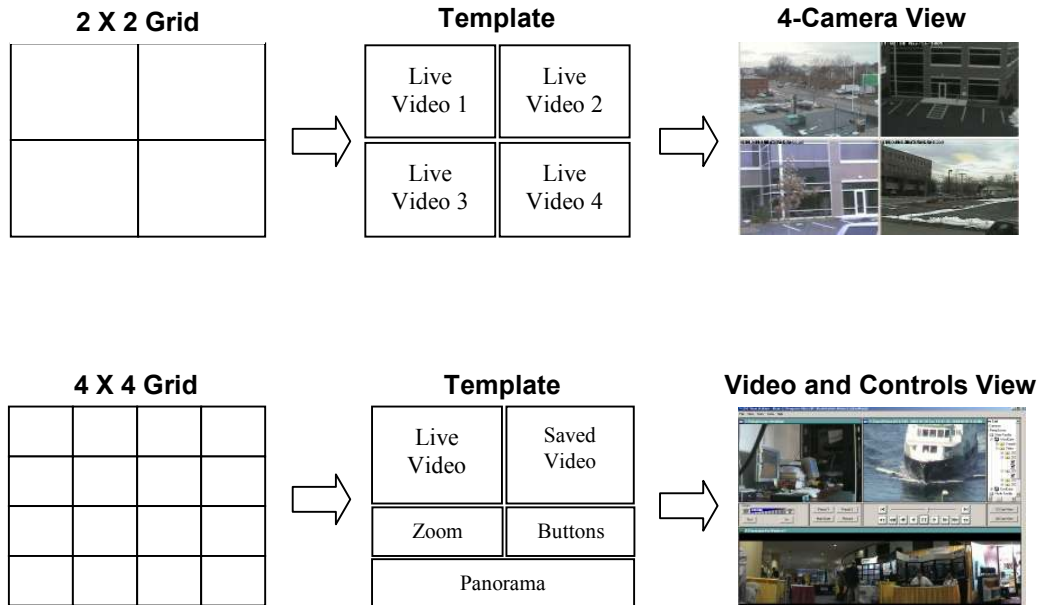
View Station Description

The **View Station** is part of the **View Station Software**, (VSS), which also includes the **Tour Manager** and **Alarm Manager**. The VSS is a client program to the IVC **Relay Server**.

The **View Station** enables a quick and easy construction of **Custom User Interfaces** for the IVC Video system. It acquires Camera IP addresses, Camera Names, and Preset Views, among other information, from the Relay Server.

Each **User Interface** is composed as a **View** and each View requires a **Template**. The Template is built by loading display and control elements into a simple **grid**. Then the elements are “tagged” to cameras and other functions to create a **View**.

The grid is created by choosing a number of **rows** and **columns** to provide the desired element sizes in the View. For example, a 2 X 2 grid makes a good four-camera display, while a 4 X 4 grid or even a 16 X 16 grid makes it possible to create small elements such as controls and buttons for the View.



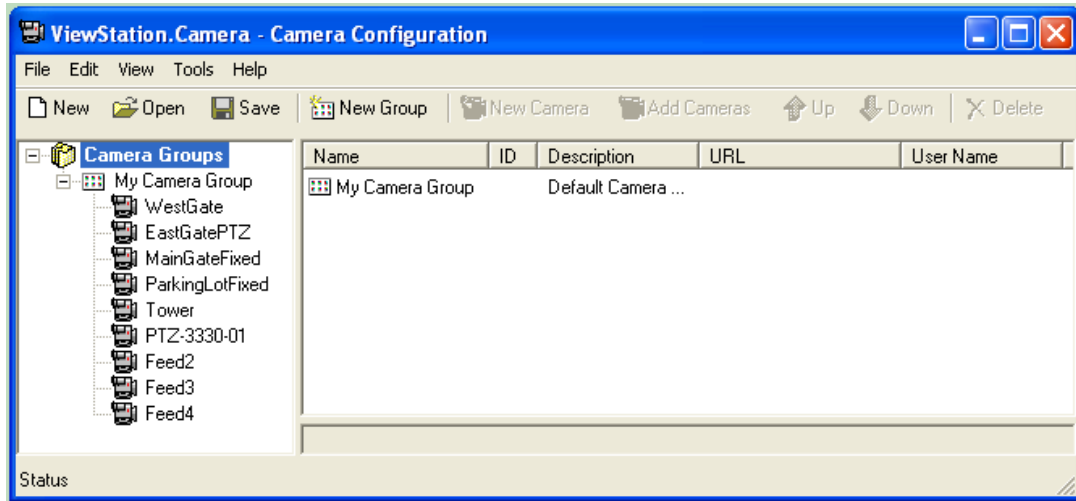
The simple process of creating Grids, Templates and Views is explained in detail in this manual.

Installing the View Station

Insert the VSS-4000 Series CD

Double Click on ViewStationSetup.msi

After installation the View Station it is necessary to link the cameras in the Relay Server to the Views Station. When the Camera Configuration page appears you can connect all cameras as a group to the Relay Server by renaming the group Relayserver1.



Camera Groups

At this point you may want to divide your cameras into **Camera Groups** according to geography, departments, etc.

You may skip this procedure and jump ahead to **Add Cameras**

Under “Camera Groups”, *right click* on Relayserver1 and *select* New Group

Enter the name of your first camera group. This could be “Main Building”, “Parking Lot”, etc. Repeat for additional groups.

Once the Groups are created you can select which cameras you want to put into each Group.

Adding Cameras


Click on Add Cameras on the Tool Bar.


If the View Station is running on the same PC as the Relay Server, *enter* localhost. If the Relay Server is running on a different PC, *enter* the IP address for that PC.

Note: The Relay Server must be running before you proceed.

Click on Load

Under “Camera Groups”, *select* a Camera Group and under “Cameras” *select* a Camera.

Click the  button and repeat until all of the Cameras are assigned to Groups.

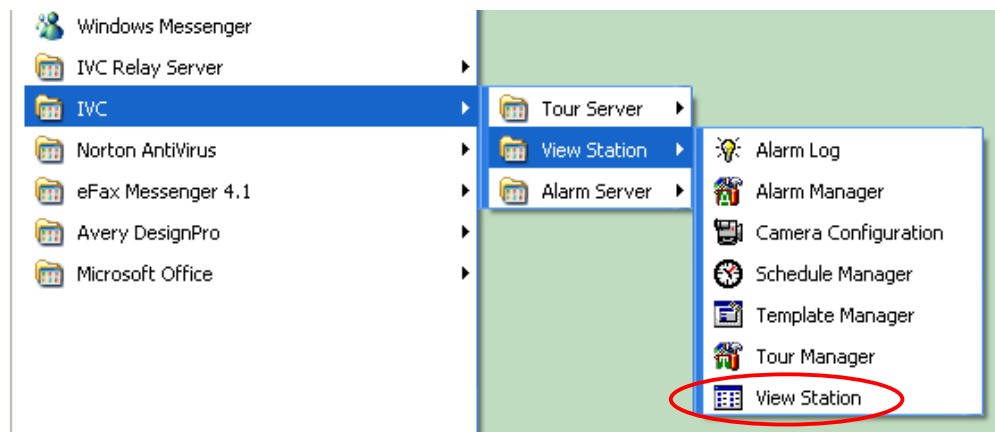
If you just have one group and you need to assign all cameras to that group then you can highlight the IP address and click on  button and all your cameras should be assigned.

Click OK

Installation is now complete.

Licensing

Locate and *select* the View Station



You see a License Information Panel. If you *click* on Cancel you will be able to operate the View Station for a period of 30 minutes. You can reset the 30 minute clock and operate the system as many times as you wish.

You can obtain a license by calling obtaining the MAC Address for the PC the View Station will run on.

To get the MAC Address:

Under Start *click* Run

Enter CMD

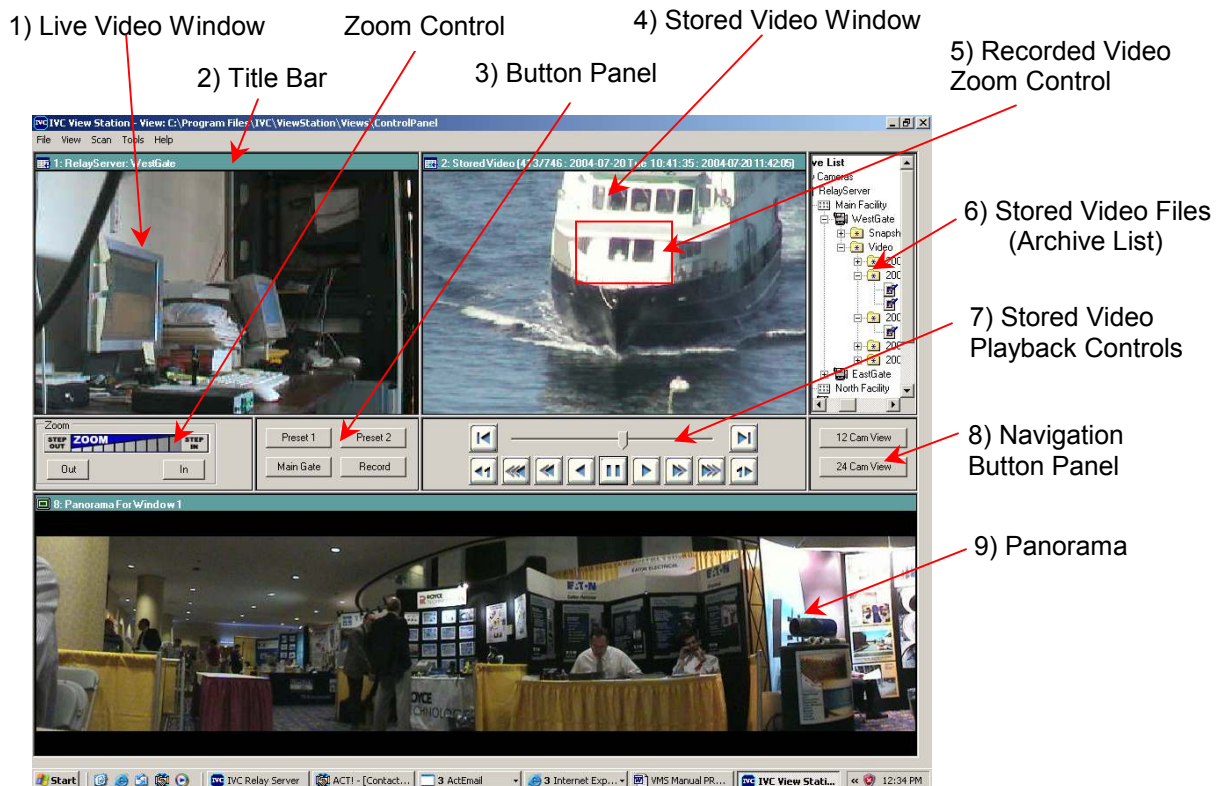
Enter ipconfig/all

Record the Physical Address (MAC Number)

Call IVC at (617) 467-3677 and ask for a **license ID and Key for your View Station Software**, or e-mail the MAC address to support@ivcco.com and ask for the same.

Getting Familiar with the Sample VSS Views

This manual will show you how to construct **Views** from scratch, but it is helpful to see how a completed View works before you start. Under File, Open, View, click on Control Panel. View. You should see this View.



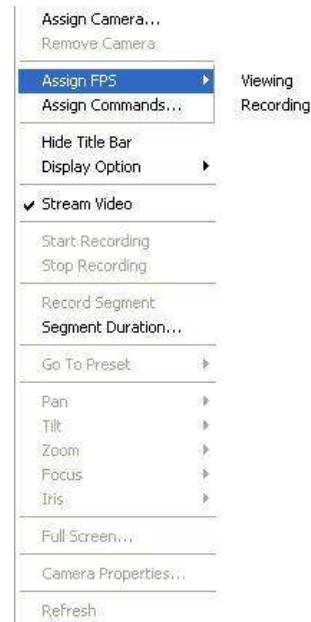
Live Video Window

This screen operates just like the Main Display on the Browser Display. For example, you can “point-and-click” on the screen to steer the camera.

Right click on the Live Video Window, *click* on Assign Camera, and *select* a camera. (Don't click on a Preset.) You will see that changing the camera in this window automatically assigns the Panorama, the Preset Buttons, and other functions like the Record Button, that are associated with that video feed.

Title Bar

Some Title Bars display information like the **Camera Group** and **Camera Name** in the Video Window. Others, like a **Button Panel**, do not display useful information after the view construction is complete. Title Bars can be hidden and un-hidden by *Right Clicking* on any panel and selecting Hide/Un-hide Title Bar. Try it now. Also notice that here is where you assign a camera to this view window and here is where you can assign a Frames-Per-Second (FPS) separately to the live view and to the video recording function. And Stream Video should always be checked else the live video will be in pull mode which will effect in the performance of viewing live video.



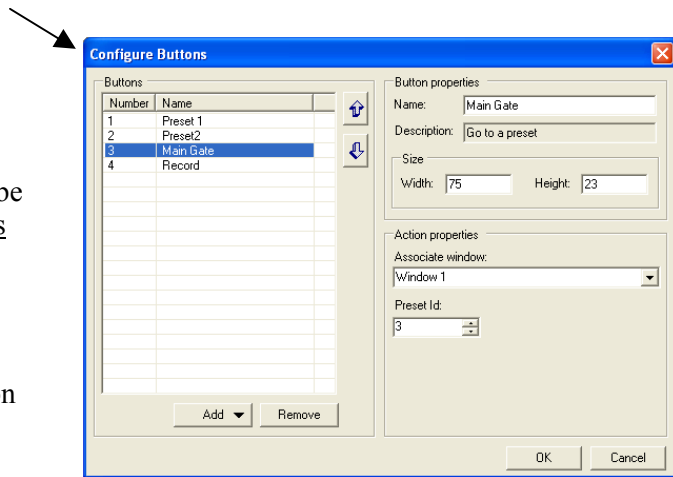
Button Panel

Right Click on the Button Panel window and select Configure Buttons. *Click* on Add to see how various functions are connected to new buttons, and how the buttons are labeled and sized.

Stored Video Window

The Stored Video Window displays previously recorded video. The video segments can be selected on a Stored Video Files Panel and playback can be controlled on a Stored Video Playback Panel.

Like all of the other Windows on this display, the **Stored Video Window** can be sized and positioned as desired during construction. The Stored Video to be played in the window is selected in the **Archive List** or from the **Alarm Log**.



Recorded Video Zoom Control

Notice that you can **Zoom In On Stored Video** by “dragging a box” around the desired area. To return to No-Zoom, hold Control and Left Click for 1 step and double click to zoom out all the way.

Archive List

To view a stored video segment, locate it in the Archive List and drag it onto the Stored Video Window. Notice you can click on the Next File Up and the Next File Down buttons on the Playback Control Panel to advance to other stored video files.

Right Click on the Archive List Window and you will see that a **Stored Video File** selected in the tree is displayed in **Window 2**, as determined in the initial construction. Notice the video files are listed under **Camera Groups / Cameras / Snapshots / Video Segments** by date and time.

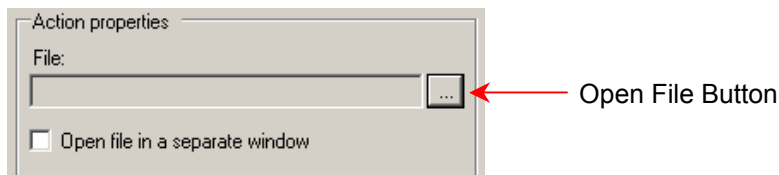
Stored Video Playback Controls



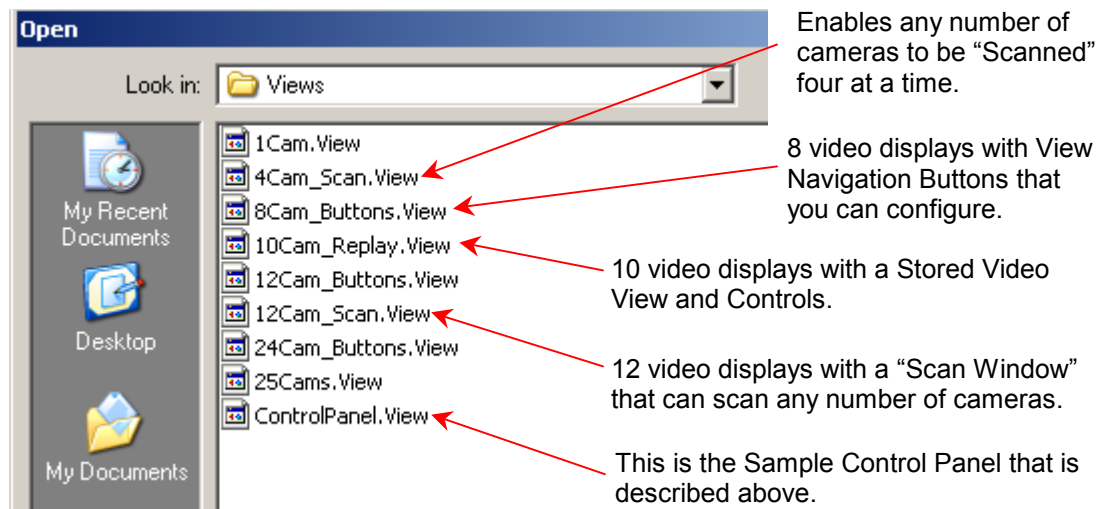
Right Click on the Stored Video Playback Control Panel and you will see that it was assigned to **Window 2** during construction.

Change View Panel

This is a standard button window that has buttons linked to other **Views** that were assembled during construction. Right Click on the Button Panel and click on Configure Buttons, then click on the Open File Button to see how these assignments are made.



You will see a number of **Views**. Some of them are linked to custom buttons on the Sample Control Panel. You may use and modify any of the Sample Views. Click Cancel and Cancel again to return to the **Control Panel**.



Panorama

Right click on the Panorama to assign the Panorama to a Live Video Window.

Building a View from Scratch

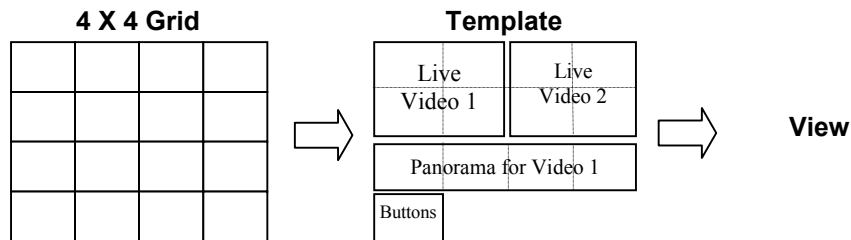
Creating a Template

Views are constructed by building a **Template**, which determines the size and arrangement of the components in a **view**. Then the **View** is built by populating the template with controls, video displays, etc.

Under File *select* New Template.

You are asked to select the desired number of **Rows** and **Columns**. This selection will determine the smallest size that you can make any **Function** in the final **View**. If you want to make a Four Camera View, you can select 2 Rows and 2 Columns for a “4 X 4 Grid”. If you want to add a small button or some other smaller component, you may want to use more rows and/or columns in your grid. This will become more clear as you proceed.

These are the Grid and Template we will construct for your **View**:



Enter “4 Rows” and “4 Columns”. *Select* Next

Select a desired **Function** and drag it to the desired position. Notice you can change the **Number** for each function if there is more than one of a specific function.

This area is for Live Video 1

This area is for Live Video 2

Function	Number
Live Video	2
Stored Video	1
Panorama	1
Camera List	1
PTZ Control	1
Playback Control	1
Button Panel	1
Browser Control	1
Archive List	1

Function Number Button Panel Panorama

Click Finish and *select* Templates. Name the Template “Test 1” and *click* Save.

Creating a View

A **View** is a display panel consisting of various windows, controls, and other functions. A **Template** must be created prior to making a **View**. (See the proceeding **Create a Template** section)

Note: You should have your IVC Relay Server fully configured and running prior to the construction of a “View”

Continuing with the “Test 1” Template we created in the proceeding section, under File, New, Template Window, open “Test 1”.

You will see your Template displayed with the “Title Bars” un-hidden. You are now ready to create a **View**.

Creating a Live Video Window

Right Click on the Live Video 1 window and *select* a Camera. (Do not select a preset)

If you do not want to use the default of 1 frame-per-second, *Right Click* on the Live Video 1 window, and *select* Assign FPS. *Check* the box Use this camera’s FPS for camera streaming, *select* an FPS and *click* OK.

Repeat for Live Video Panel 2

Be sure to click Save before closing

Creating a Panorama Window

Note: A Panorama must be created in the View Manager in the Relay Server prior to assigning it to a View Station window.

Right Click on the Panorama Window and choose which **Live Video Window** you want to assign the panorama window to. *Select* Assign live video, then *select* Window 1 or Window 2. Notice that if you assign the panorama to Window 1 and you change the camera assignment in Window 1, the panorama associated with the new camera will automatically appear in the panorama window.

Right Click on the Panorama Panel and *select* Hide Title Bar.

Creating a Button Panel

Right Click on the Button Panel and *select* Configure Buttons.

Click Add and review the various functions that can be connected to a button and refer to the following instructions for each function type.

Go-to-Preset Button

Each camera can have preset views or **Presets** set up for them in the Relay Server. When a camera is selected for display in a Window, each of its Presets can be automatically linked to a button. If the **Live Video Window** always displays the **same camera**, the

buttons can be labeled with the preset name e.g. GATE. If the Live Video Window is used to display **selected cameras**, the preset buttons should be labeled generically, eg PRESET 1, PRESET 2, etc.

To create a preset button, *Right Click* on the Button Panel and select Configure Buttons.

Click Add and select Go to a Preset Button.

Enter the Button Size and the Preset Name as explained above.

Under Action Properties, enter the appropriate Window Number and select a Preset ID. The Preset ID is the Preset Number as it appears in the **Preset List** in the Relay Server under Tools, View Manager, Presets.

Click OK and Save under “File”.

Creating View Navigation Buttons

It is often useful to create several **Views** and link them to Buttons as you can see on the Sample Control Panel, (12 Cam View and 24 Cam View). The “12 Cam View” button opens a View labeled, “12 Cam Buttons”, and the “24 Cam View” button opens the “24 Cam Buttons” View. Each of those Views has buttons that link-back to the “Control Panel” View. To create such links:

Right Click on the Button Panel and *select* Configure Buttons.

Click Add and *select* Open File Button and View.

Under Action Properties *click* the File button *select* the “View” that you want to link.

Do not check Open File in a Separate Window unless you want multiple Views to remain open.

Under “Button Properties” enter the Button Name and size the button as desired.

Click OK.

Right Click on the Button Panel and *select* Hide Title Bar.

Click Save under “File”.

Creating a Camera Scan

The “Scan” function makes it possible to cause a **Live Video Window** to display a number video feeds sequentially. To create a Scan:

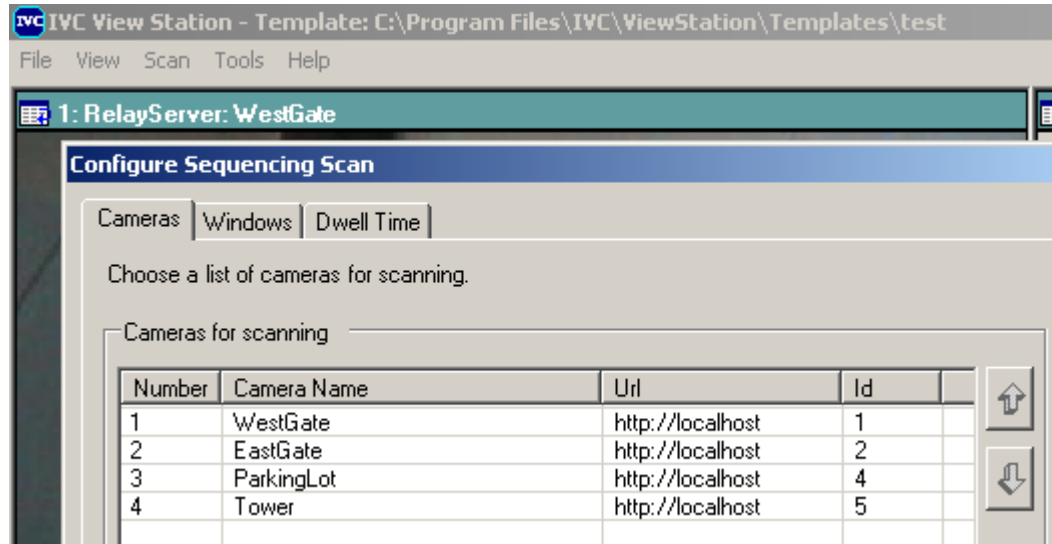
Right Click on the Button Panel and *select* Configure Buttons.

Click Add and *select* Scanning Button and add a **Start** button.

Size the Button and *Click OK*

Repeat the above for the **Pause** button.

Select Scan in the “Tool Bar”, *Configure Scan*, and *click Add* at the bottom of the “Cameras for Scanning” table to populate the table.



Select the Windows tab and *select* which **Live Video Window** will display the scanned video feeds.

Select Scan, *Configure Scan*, and *Dwell Time* to set the period that each feed remains on the Window.

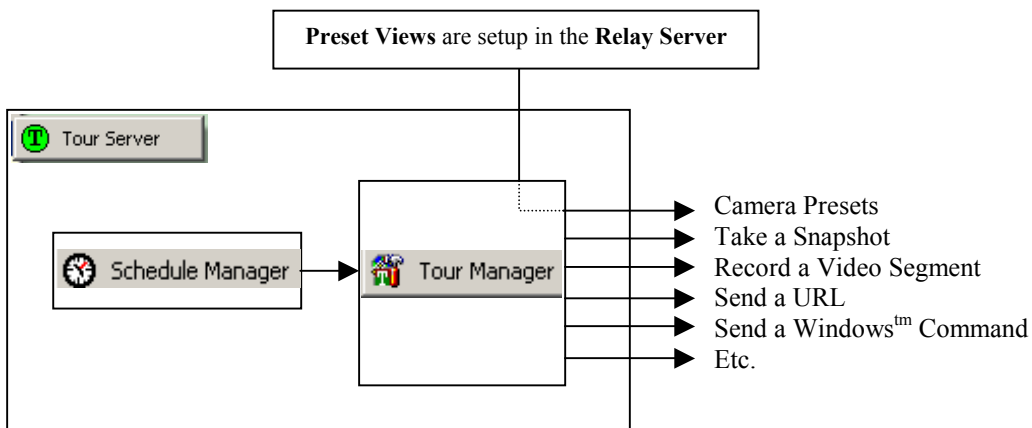
Select Scan and *check Short, Medium* or *Long Dwell Time*.

Right Click on the Button Panel and *select Hide Title Bar*.

Click Save under “File”.

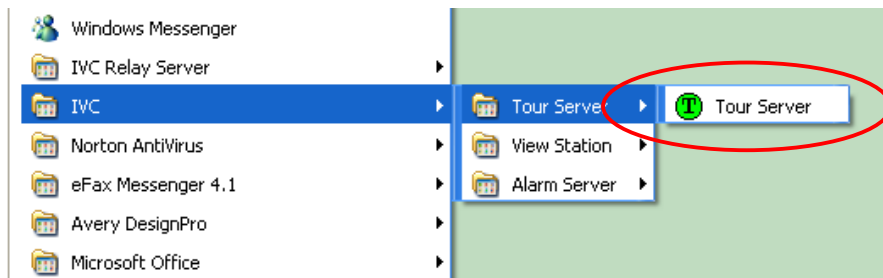
Using the Scheduler and Tour Manager

The VSS includes a very flexible scheduler called the **Schedule Manager**, and a module called the **Tour Manager** that can be used to create “Camera Tours” whereby a camera proceeds from “Preset View” to “Preset View”. The Scheduler tells the Tour Manager when to execute various **Actions**. Actions can be a movement from one Preset View to another. It can be an instruction to take a **Snapshot** or **Video Segment**. It can even be an instruction to accomplish a **Windows Executable**, or to send a **URL** to another application, all against the appropriate schedule. There can be many schedules.



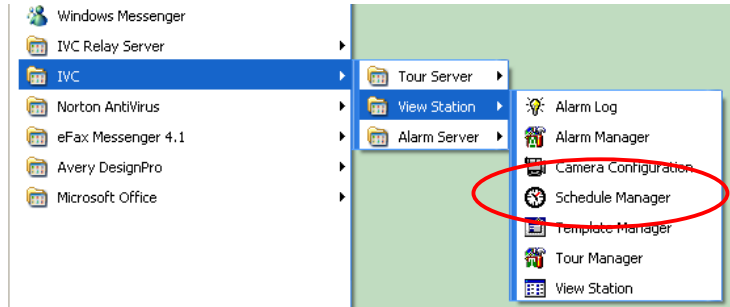
Note : The **Tour Server** must be running to use the **Schedule Manager** and/or to run Camera Tours.

Launch the **Tour Server** under **All Programs** as shown and minimize it.



Schedule Manager

Launch the **Schedule Manager** under **Programs** as shown



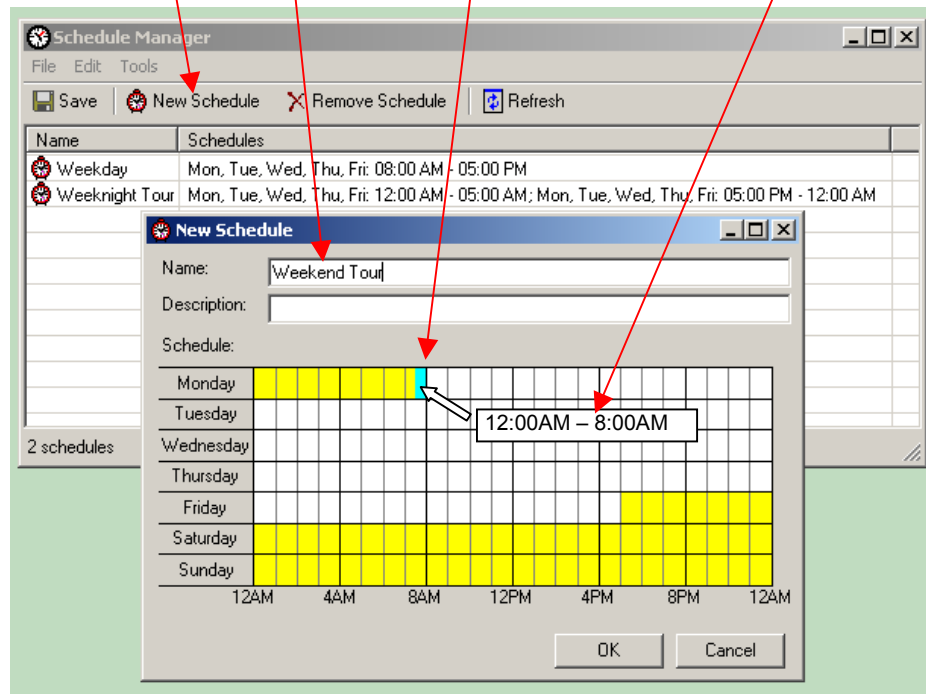
We are going to create a **Camera Tour** that changes its routine according to a **Schedule**. In this example, assume the **Weekday** and **Weeknight** tours have been created as shown below. To create the **Weekend Tour**, click on New Schedule and proceed as follows:

1) Click on New Schedule

2) Enter a Name

3) Drag the blue spot through the desired "Operate Time".

4) Notice that if you rest the cursor anywhere on the highlighted area, the "scheduled time" will be displayed.



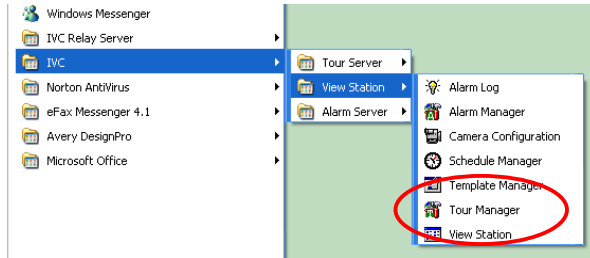
Click **OK** and proceed to **Tour Manager**.

Tour Manager

Now that the **Schedule** has been created, a **Camera Tour** can be created.

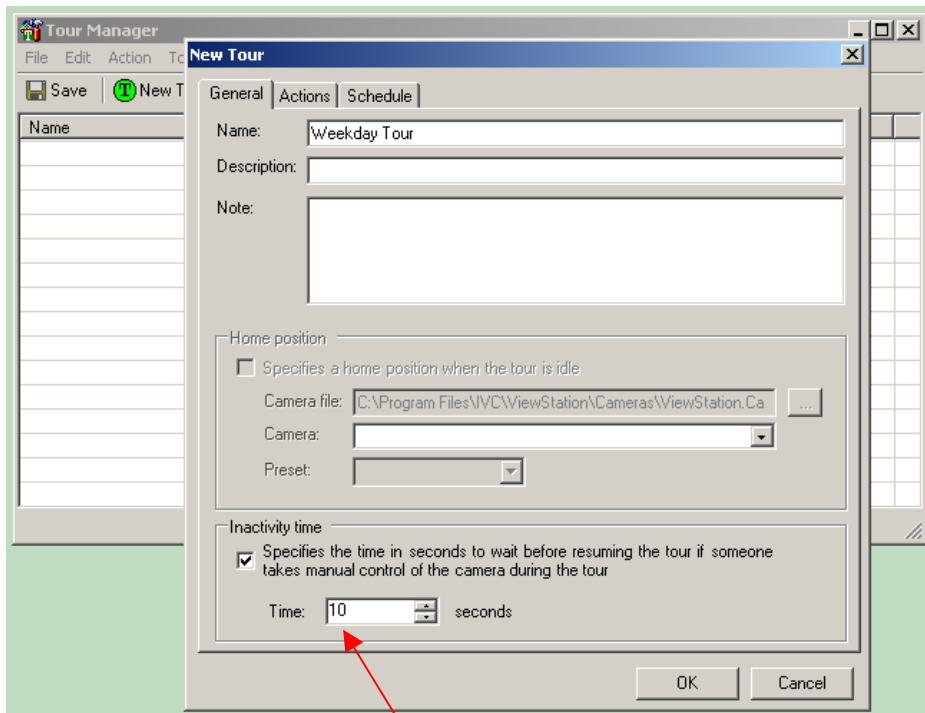
Create a Camera Tour

Launch the **Tour Manager** under **Programs** as shown.



Click **New Tour**, select a **Schedule**, and click on **General**

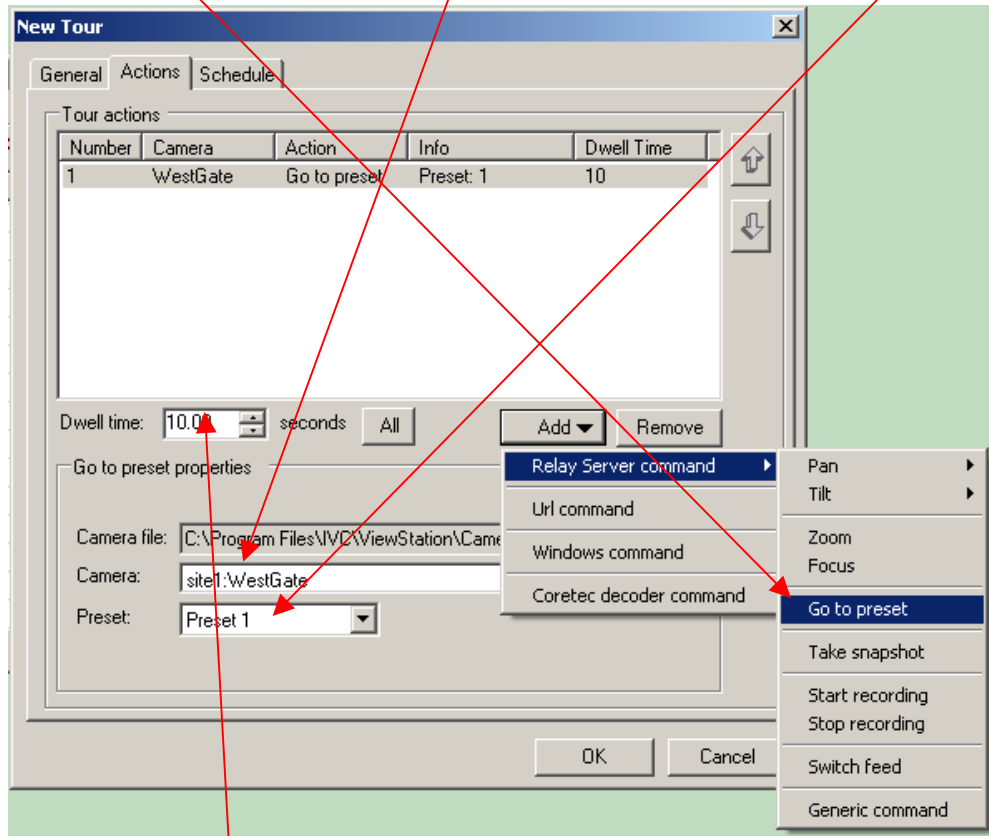
Enter a **Tour Name** and set the **Inactivity Time** as shown below.



If an operator clicks on a video window to control the camera, the Tour will be interrupted and will resume if the camera is idle for this period of time.

Click on **Actions**

- 1) Click **Add ▼**, **Relay Server Command**, and **Go to Preset**.
- 2) Select a **Camera**. Double Click on the desired camera
- 3) Select a **Preset**. This is the Preset that you configured earlier in the **Relay Server**



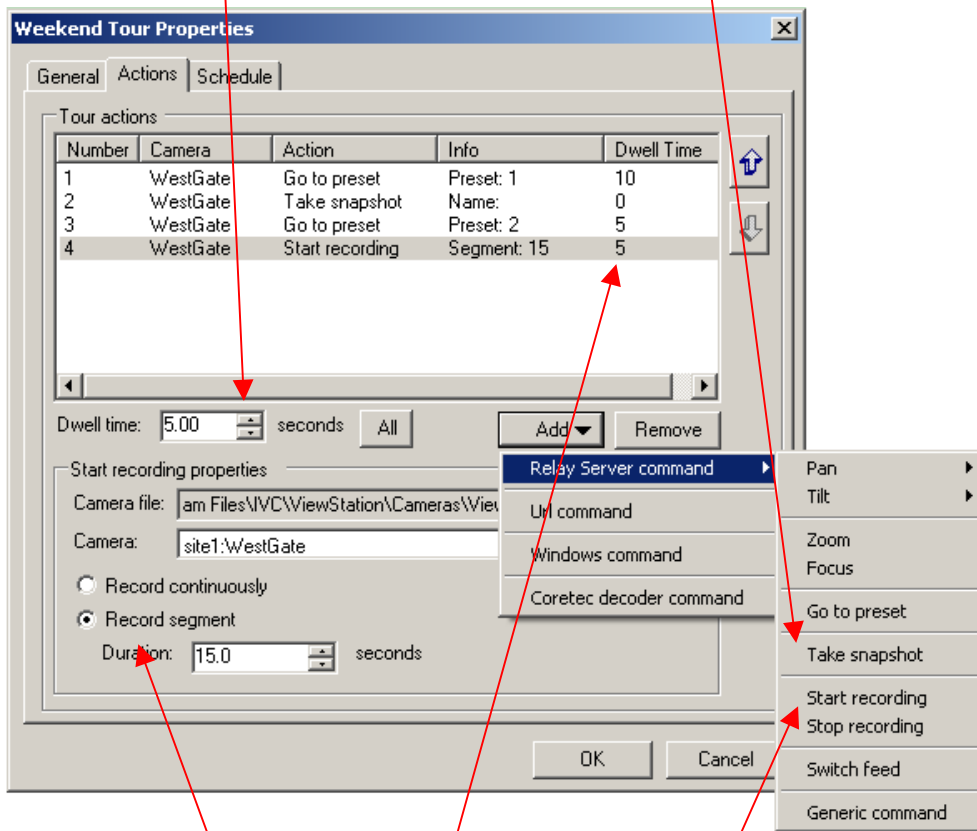
- 4) Set the **Dwell Time**. This value determines how long the camera will point at this Preset View before it proceeds to the next Preset View.

Repeat as necessary to construct a simple Camera Tour or proceed to the next page to add automatic **Snapshots** or automatic **Video Clips**

Snapshots

To take a **Snapshot** at a Preset View:

- 1) After the Preset Line is added, click on “Add ▼” and *select Take Snapshot.*
- 2) Set **Dwell Time** to “0”



Record Video

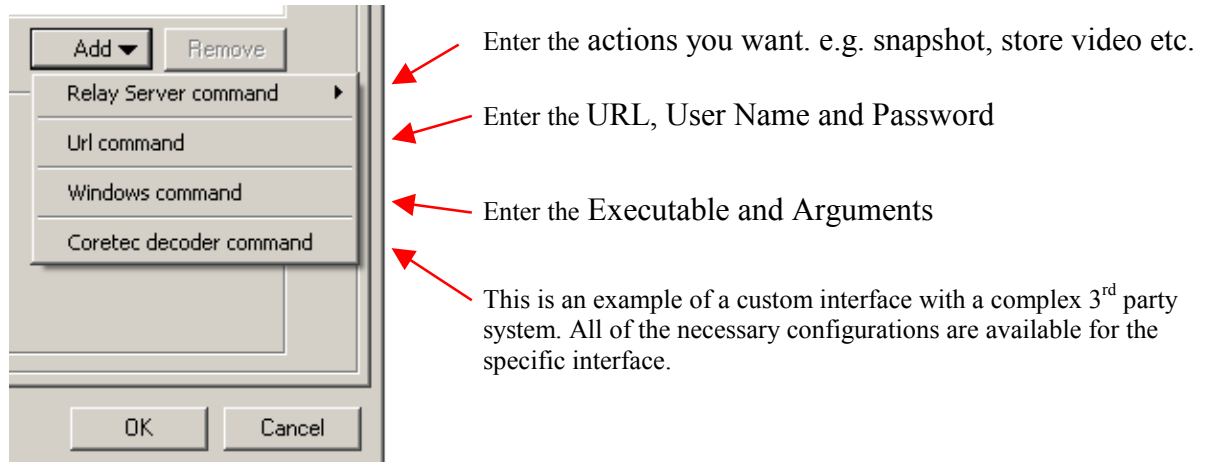
To **Record Video** at a Preset View in a Tour:

- 1) After the Preset Line is added, click on “Add ▼” and *select Start Recording.*
- 2) *Select Record Segment*
- 3) Be sure to set **Dwell Time** long enough to accommodate the recording period

When the Tour is completed, *click OK* and set the desired Tour to **Enable** in the Tour Manager

URL and Windows™ Actions

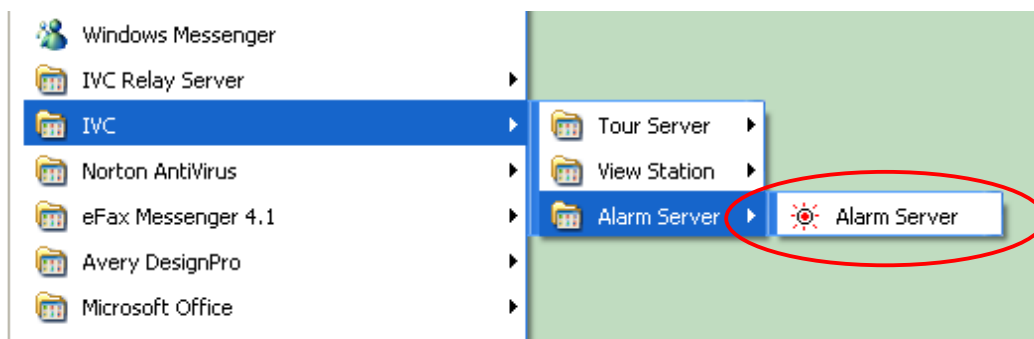
Notice the Tour Manager can be used with the Schedule Manager to control other functions by scheduling **URL Commands** and **Windows™ Executables**



Using the Alarm Manager

The Alarm Manager enables the video system to respond to various alarms. The alarms can be in-video motion detection when the proper conditions exist and/or contact closures associated with external security devices and other equipment. Alarm responses can be audible alarms, visula identification of video streams associated with an alarm, automatic snapshots, automatic stored video, automatic camera movements, URLs to other software, Windows commands, ActiveX interfaces to SCADA software, etc. The IVC Alarm Server must be installed and operating.

Launch the **Alarm Server** under **Programs** as shown.



Creating an Alarm Response

To enable the system to react to an alarm, it is necessary to specify the camera and the specific alarm input as the alarm source. Then it is necessary to configure the system to respond in the desired way.

Specifying An Alarm Source

Open a View Station view and select Alarms. Then select New Alarm and enter the name of the alarm as you want it to appear on the Alarm Log.

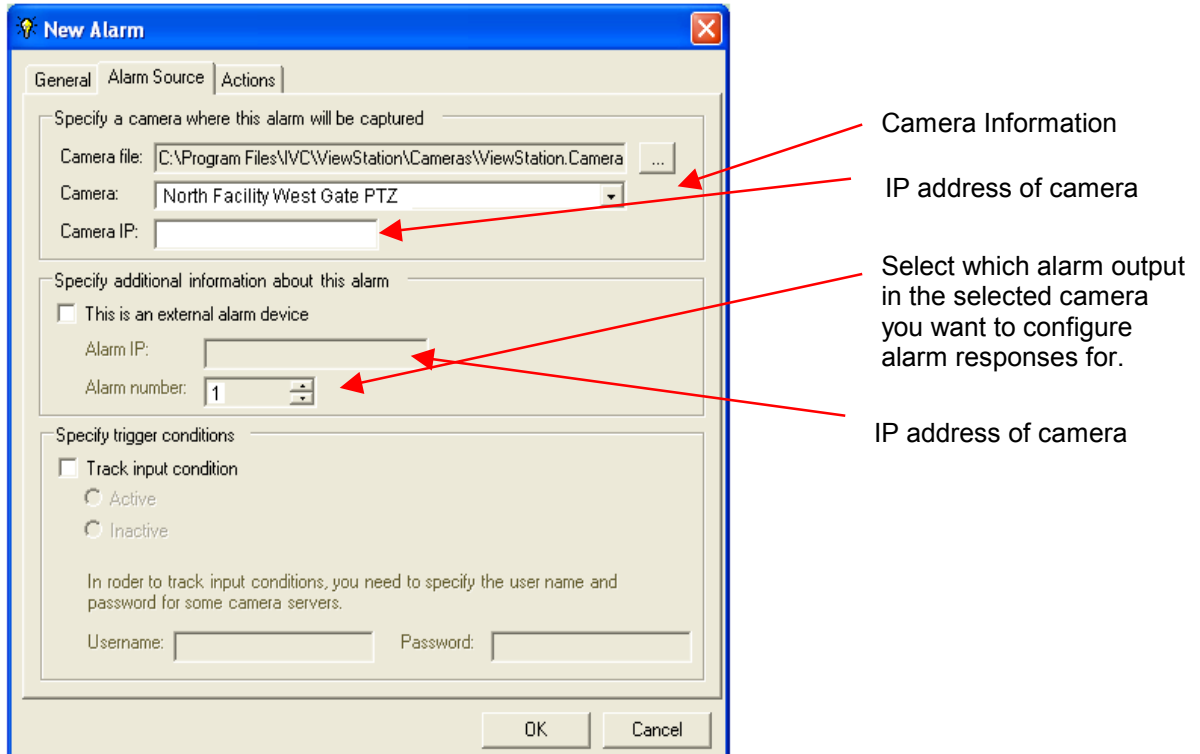
Enter the name of the Alarm as you want it to appear on the Alarm Log

Not required

Name	Enable	Camera Name	Camera IP	Alarm IP	Alarm Number
Door Opened	Yes	East Gate PTZ	192.168.1.50	192.168.1.50	1

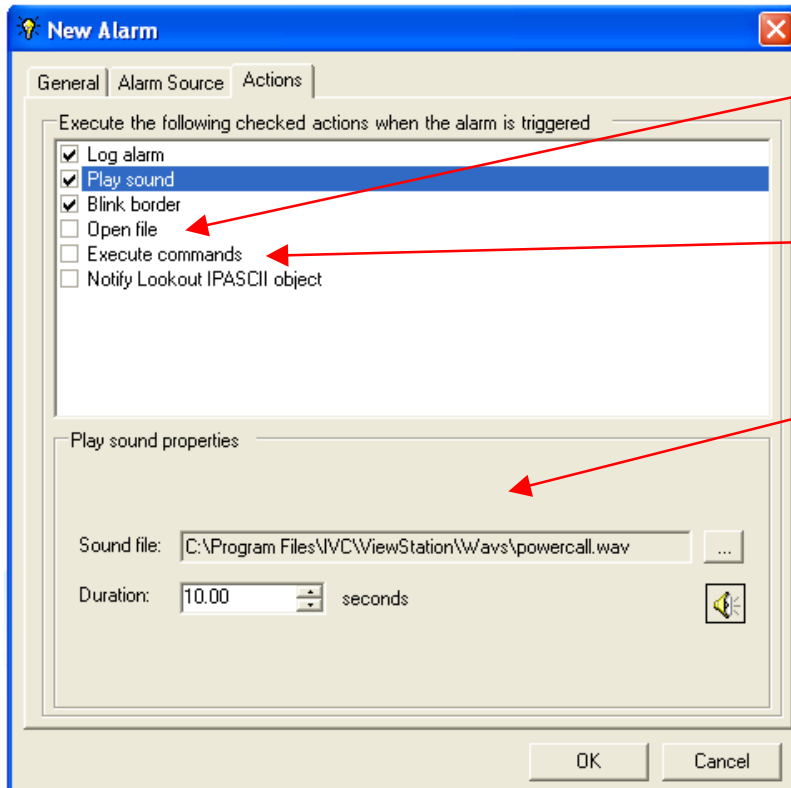
Alarm Setup

Open a View Station view and select Alarms. Then select New Alarm and Alarm Source and select the Camera and Alarm Number. The Alarm Number will be determined by the input you have used, if your camera supports just 1 input it will be 1.



Configuring Alarm Responses

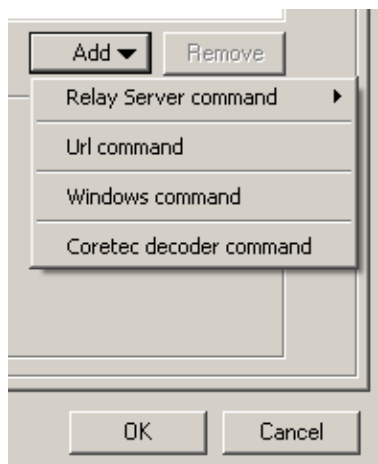
Once the camera and specific alarm output from the camera is selected, select Actions to configure the alarm responses.



Triggers the launch of a designated “View”. This could be an Alarm Panel, a Full Screen View, etc.

Enables alarm triggered commands. See below.

Audible Alarm set-up



Enter the actions you want. e.g. snapshot, store video etc.

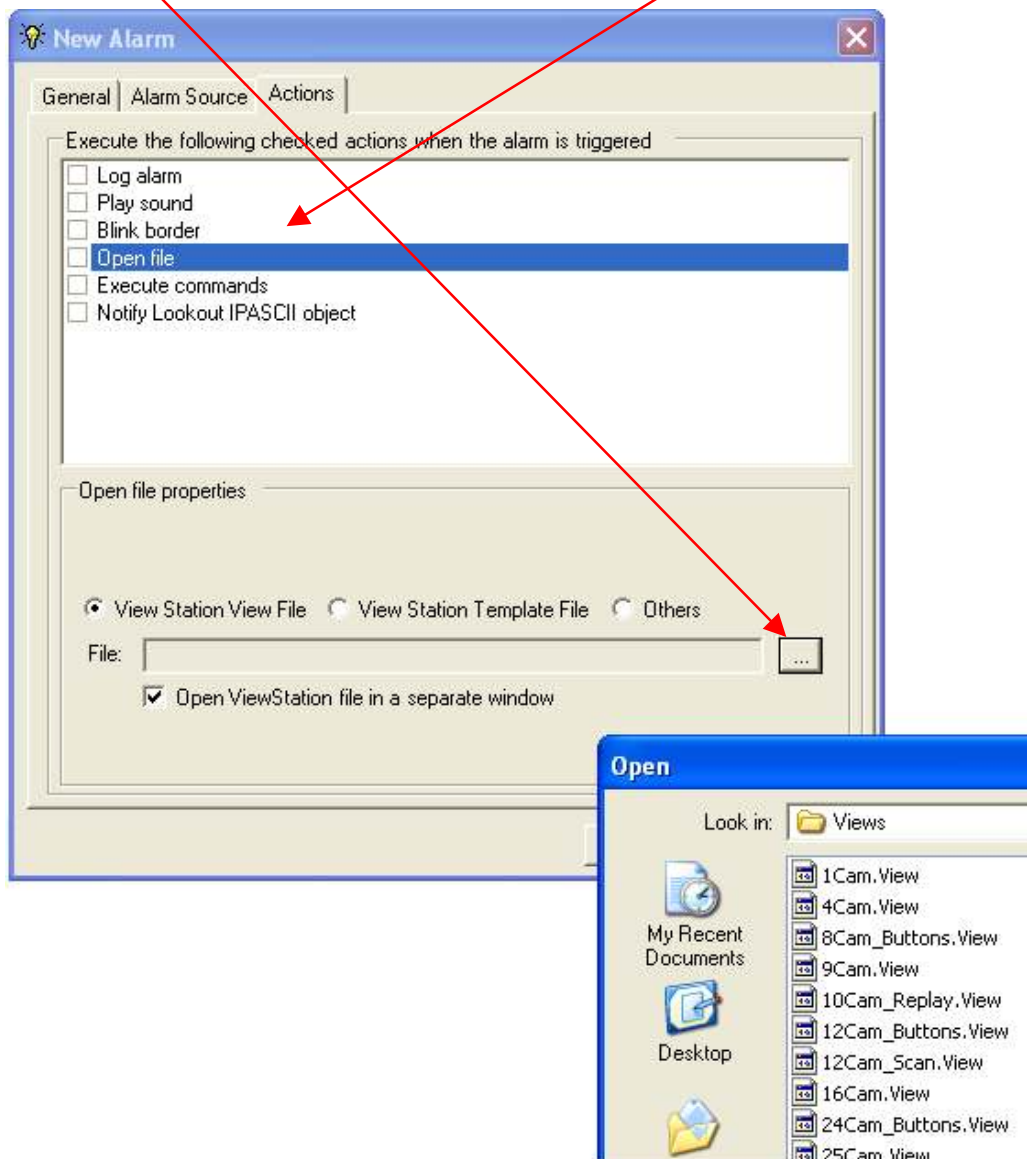
Enter the URL, User Name and Password

Enter the Executable and Arguments

This is an example of a custom interface with a complex 3rd party system. All of the necessary configurations are available for the specific interface.

Alarm Triggered Views

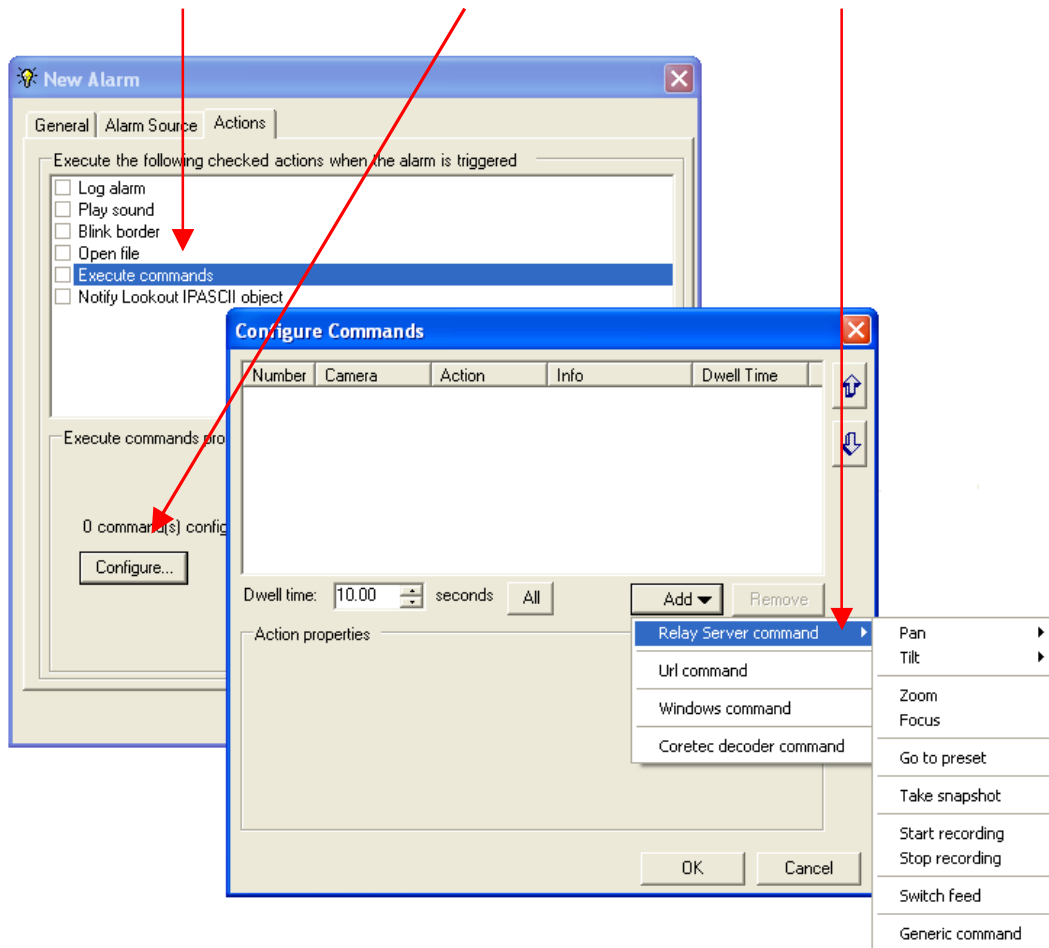
It is possible to configure a special View Station view and have it launched automatically upon alarm. After creating the desired View Station views, select Open File and click on the “List Button” for a list of your views. Then select the desired view.



Alarm Triggered Video System Responses

It is possible to cause certain responses in PTZ cameras and video feed control as well as triggering Snapshots and Video Recording.

Select Execute Commands, click Configure, and select Relay Server Commands.



Note: IVC is not liable for direct or consequential damages resulting from use of this product and IVC makes no guarantees regarding results of intended and unintended use of the product.

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Document Number VSS-4000-030206