

Documentation

# General Solutions Digiop Video RTU Guide Version 3.x

# **OSSI**

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# **Intelli-Site**

**Security Management Software  
General Solutions Digiop Video  
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 General Solutions Digiop Video RTU (Receiver/Transmitter Unit) is the Intelli-Site software representation of the General Solutions Digiop Digital Video Recorder (DVR). For purposes of this document, the term RTU is synonymous with a Digiop DVR.

## ***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:

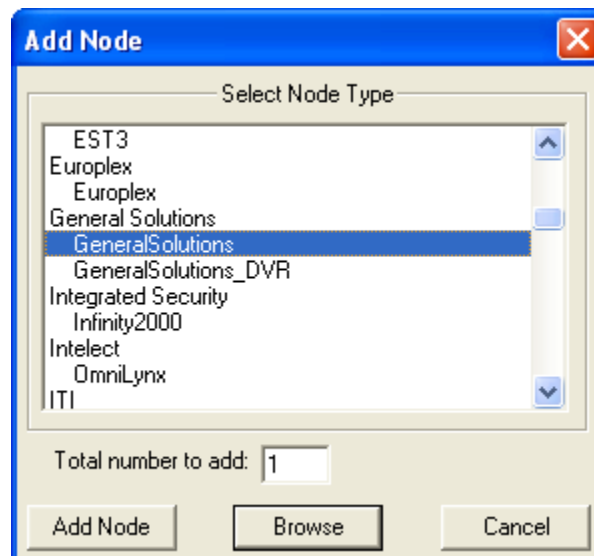
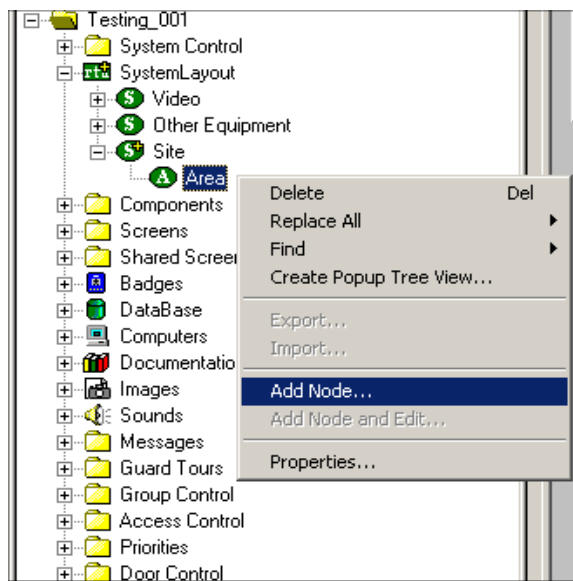
- Product version number, found by selecting the **About**  button from the Intelli-Site Menu Application Bar.
- Product serial number used for registration.
- The type of computer being used including, operating system, processor type, speed, amount of memory, type of display, etc.
- Exact wording of 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 - Digiop DVR Setup (Design Mode)

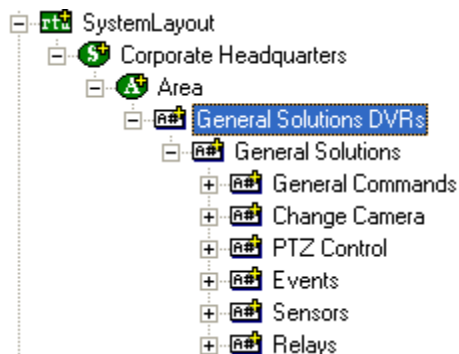
This section discusses the setup of Digiop DVRs in the project in Graphic Design mode.

### ***Adding DVR Nodes***

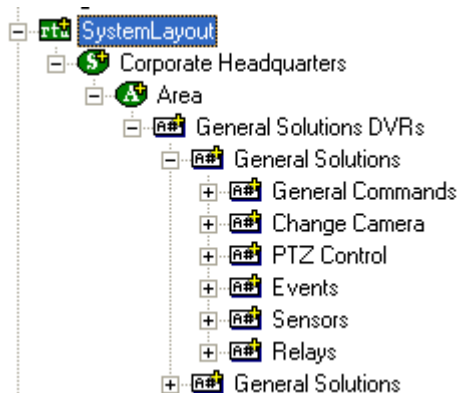
Regard DVR nodes reside under a parent GeneralSolutions node. This parent node must be added first (see figures below):



As displayed, the first step is to add a 'GeneralSolutions' node from the list in the 'Add Node' dialog. The GeneralSolutions DVRs node contains one DVR (General Solutions) node as its child. Once this has been added, you may add-node additional DVRs as children to the parent GeneralSolutions DVRs Node.



To add a new DVR Right-Click on the 'GeneralSolutions DVRs' node and select 'Add Node', at which point a new DVR node will be created:



## Configuring the DVR Node

After a DVR node has been added under the 'GeneralSolutions DVRs' node, it needs to be configured. This is accomplished by Rick-Clicking and editing the properties of the DVR node:

1. General Protocol Node Setting Tab allows you to adjust the following properties:
  - a. Change the name of the DVR.
  - b. Select the Access Level.



- c. The Domain is system-selected and fixed.
- d. The Node Type is General – Do not change.
- e. The Address field should remain blank.
- f. The Protocol field should remain blank.

General Solutions - General Solutions DVRs General Solutions

General Protocol Node Settings | Connection Settings | Notes/Comments

Name:  ID:

Access\_Level:

Domain:

Node Type:

Address:

Protocol:

**Rename the DVR in this field.**

Ok Cancel

2. Connection Settings Tab allows you to change the connection parameters:
  - a. Site Name: enter a name in this field (does not have to match the node name entered on the General Protocol Node Settings tab).
  - b. Server IP (Phone Num): enter the IP address of the DVR (or phone number if dialup).

- c. User ID: enter the DVR user identification.
- d. Password: enter the DVR password.
- e. Number of Cameras: Select, from the combo box, the number of channels available on this DVR – 8, 16 or 32.

The screenshot shows a software window titled "General Solutions - General Solutions DVRs General Solutions". It has three tabs: "General Protocol Node Settings", "Connection Settings", and "Notes/Comments". The "General Protocol Node Settings" tab is selected. Inside this tab, there are five input fields: "Site Name" with the text "Demo 1 Site", "Server IP: (Phone Num):" with the text "216.136.104.241", "User ID:" with the text "agent", "Password:" with the text "xxxx", and "Number of Cameras:" with a dropdown menu showing "16". At the bottom right of the window are two buttons: "Ok" and "Cancel".

- 3. General Commands Subnode allows you to Connect, Disconnect and Pause Video. The action for these nodes is always SendCommand.
- 4. Change Camera Subnode allows you to connect to the available camera channels. The action for these nodes is always SendCommand.
- 5. PTZ Control Subnode allows you to execute Pan, Tilt and Zoom commands against camera channels that are appropriately equipped with PTZ controllers. The action for these nodes is always SendCommand.

6. Events Subnode contain input events that are received from the Digiop for the following conditions:
  - a. Not Responding – will go active whenever the system loses communications with a DVR.
  - b. Recording Start – will go active whenever a recording is started.
  - c. Recording Stop – will go active whenever a recording has stopped.
  - d. Motion Camera 1 through Motion Camera 16 – will go active whenever motion is detected at the appropriate Camera channel.
7. Sensors Subnode contains up to 16 Sensor (input) points that will go active whenever they are initiated at the DVR. The DVR must be equipped with a Sensor Input Module.
8. Relays Subnode contains 16 relay points that you can activate. The DVR must be equipped with a relay module. The action for these points is always SendCommand.

## ***Programming Examples for Run Mode***

After a DVR node has been configured in the design tree you can use elements of the DVR node for a variety of Run Mode applications. The following Section details some examples of DVR applications that can be programmed for Run Mode:

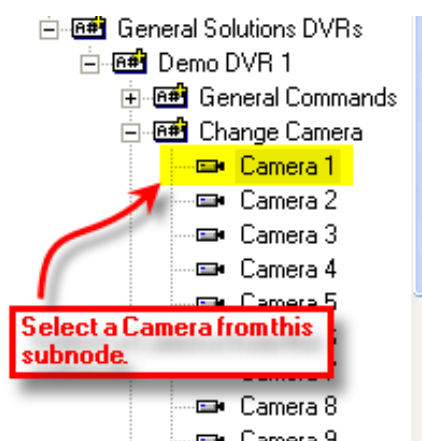
### **1. Live Video Display and Control Programming Example**

The following programming example will detail the steps necessary to create a video display object and various controls that will allow video switching on a Run Mode Screen.

**Step 1** – In Design Mode, Drag-and-Drop a Video Display object, from the Components Node in the Tree, onto the Screen. The Video Display object is always used as the display target for Digiop video. There is no limit to the number of Video Display objects that can be on any one screen. When dropped, the Video Display Object will automatically size to 320X240 but can be resized to fit your needs.



**Step 2** – Drag-and-Drop a Camera from the Change Cameras subnode of the DVR onto the tree. This will automatically create a camera screen object. Use the Default settings when prompted by the wizard.



At this point your screen should look something like this:



**Step 3** - In order to send the video, called by the Camera object, to the Video Display object created in Step 1, you will have to modify the properties of the Camera Object by adding a LiveVideo command before the SendCommand for the Camera as follows:

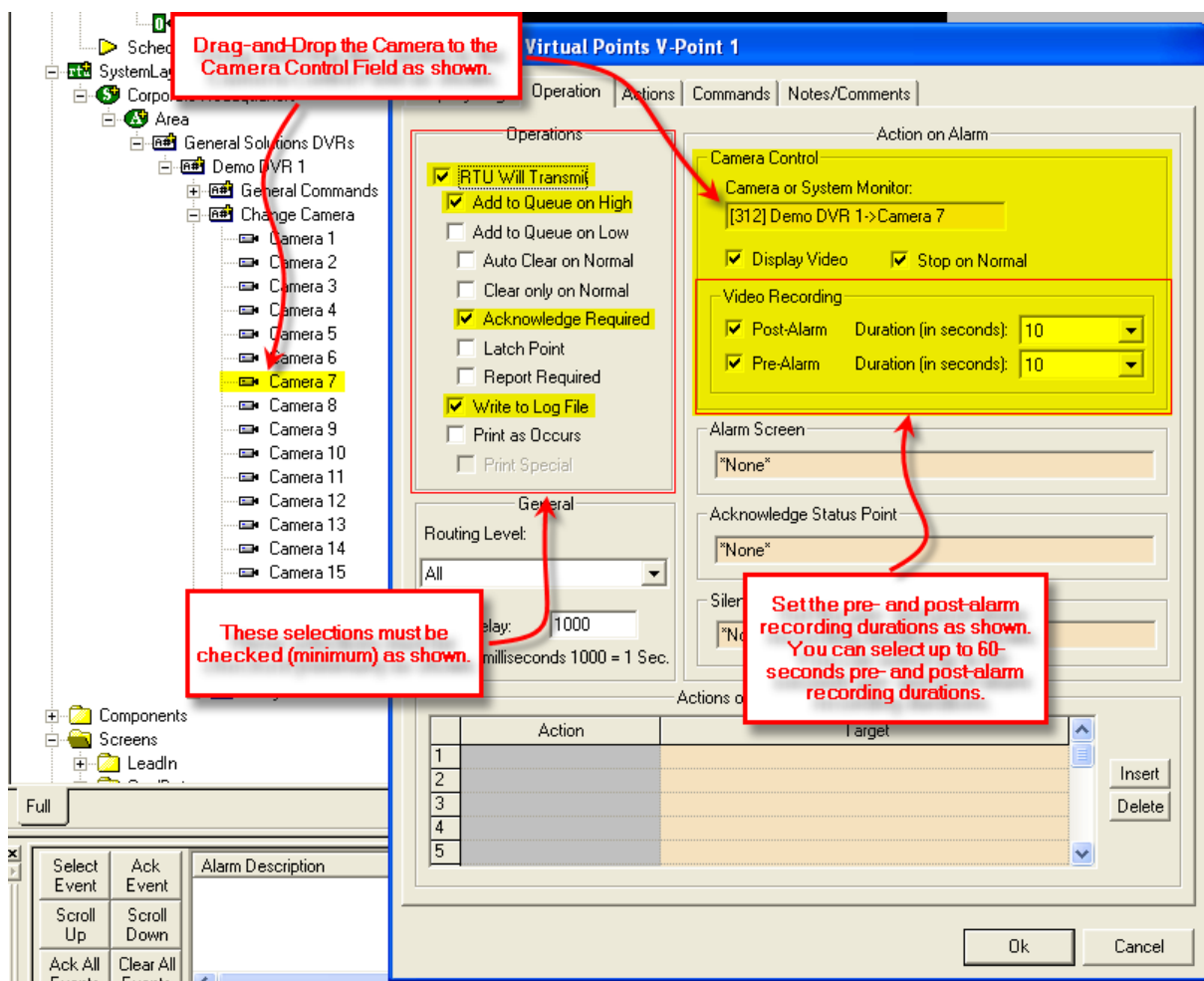


## Programming Example

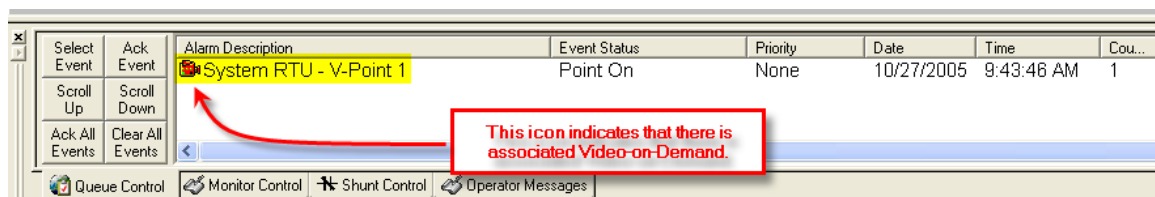
necessary to program an alarm-point relationship to a Camera object for Video-on-Demand functionality.

post-alarm recorded video is “tagged” for automated recall during alarm acknowledgement.

**Step 1** – Using any I/O point in the tree (in this case we are using a Virtual Point) you can set the properties of the I/O point to enable pre- or post-alarm recording (or both) as shown below:



**Step 2** – Upon I/O point activation the alarm will appear in the Queue with a video-associated icon as shown below:



**Step 3** – Double-Left-Click on the icon will automatically switch to the Digiop DVR Mode and replay the pre-and-post alarm video from the associated channel:

The screenshot displays the Digiop RTU software interface. The main window shows a live video feed of a room with a long table, chairs, and a door. The video feed is labeled 'Test\_001 - Intelli-Site' and shows a timestamp of '2005/10/27 09:49:45'. The video quality is indicated as '95.1 kbps' and '7.2 fps'. Below the video feed, there are buttons for 'Alarm/Events', 'Prev Camera', 'Next Camera', and 'Full Screen'.

On the right side of the interface, there is a control panel with the following sections:

- DVRs:** A dropdown menu showing 'Demo DVR 1'.
- General Commands:** A dropdown menu with options: 'Connect', 'Disconnect', and 'Pause Video'.
- Screen Division:** A dropdown menu set to '4 window'.
- Retain Connections:** A checkbox that is currently unchecked.
- Settings:** A button labeled 'Save'.
- Active Rotation:** A dropdown menu set to 'No Tour Active'.
- Screen Rotation:** Buttons for 'Create...', 'Start...', and 'Stop'.
- Never Display Alarm Queue:** A checkbox that is currently unchecked.
- Display on 2nd Monitor:** A checkbox that is currently unchecked.
- Resume Joystick:** A button.

At the bottom of the interface, there is a table with the following columns: Select Event, Ack Event, Alarm Description, Event Status, Priority, Date, Time, Cou..., Card No., and Server. The table contains one row of data:

Select Event	Ack Event	Alarm Description	Event Status	Priority	Date	Time	Cou...	Card No.	Server
		System RTU - V-Point 1	Point On	None	10/27/2005	9:43:46 AM	1	0	Test_001

Below the table, there are buttons for 'Queue Control', 'Monitor Control', 'Shunt Control', and 'Operator Messages'. At the very bottom, there is a status bar with the text 'Menu', 'Operator: master', 'Thursday, October 27, 2005', and '9:49 AM'.




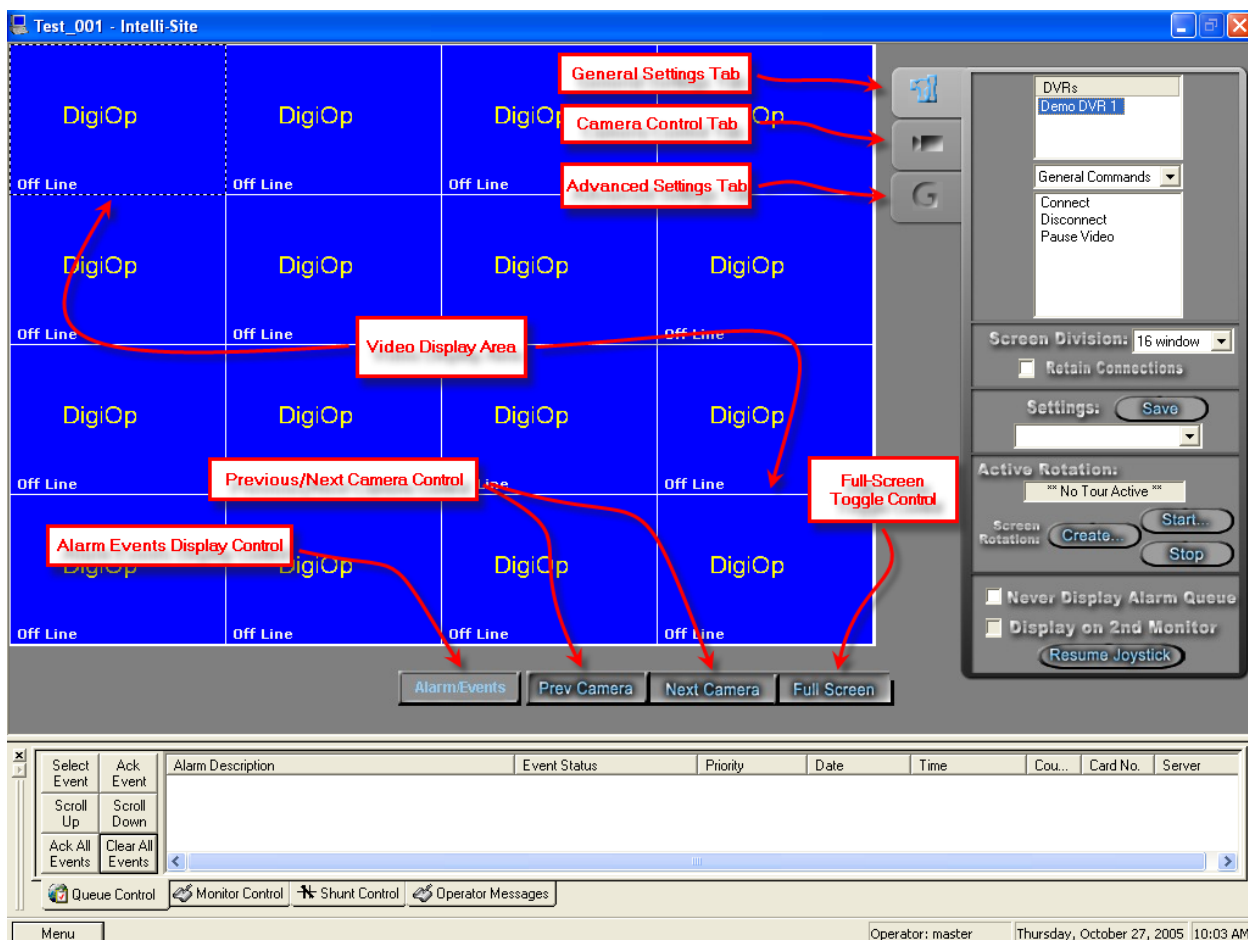
## Section 4 – General Solutions Digiop DVR Mode


This section discusses the use of the General Solutions Digiop DVR Multi View Mode.

### *Using the DVR Mode*

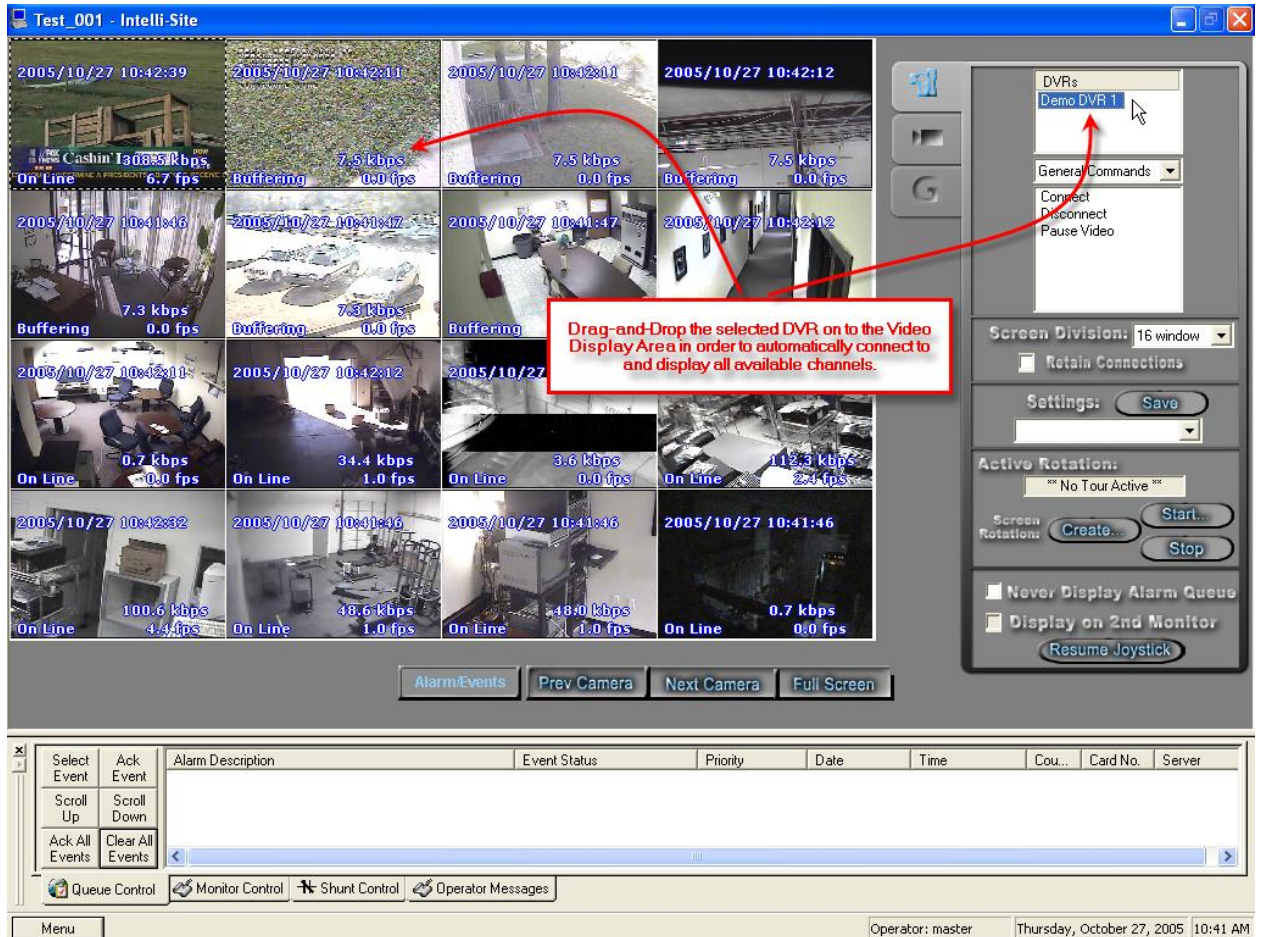


Click on the  icon on the Application Menu bar in order to switch to the DVR Mode.

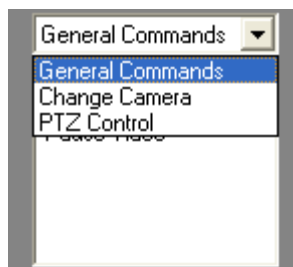


1. General Settings Tab  allows you to set display, control, and camera tour parameters.

- a. DVRs – This window will list all of the DVR nodes in the Design Mode tree. You can display all available channels for a specific DVR by Dragging and Dropping the selected DVR on to the Video Display Area.

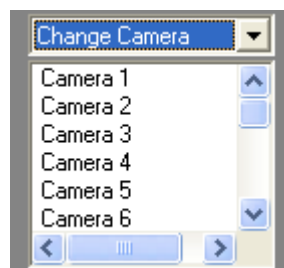


- b. Commands Combo Box – select commands to be applied to specific display areas in the categories of General Commands, Change Camera Commands, and Camera PTZ Commands. First Select the command desired, then Drag-and-Drop the command on to the specific camera view in the Video Display Area.



i. General Commands

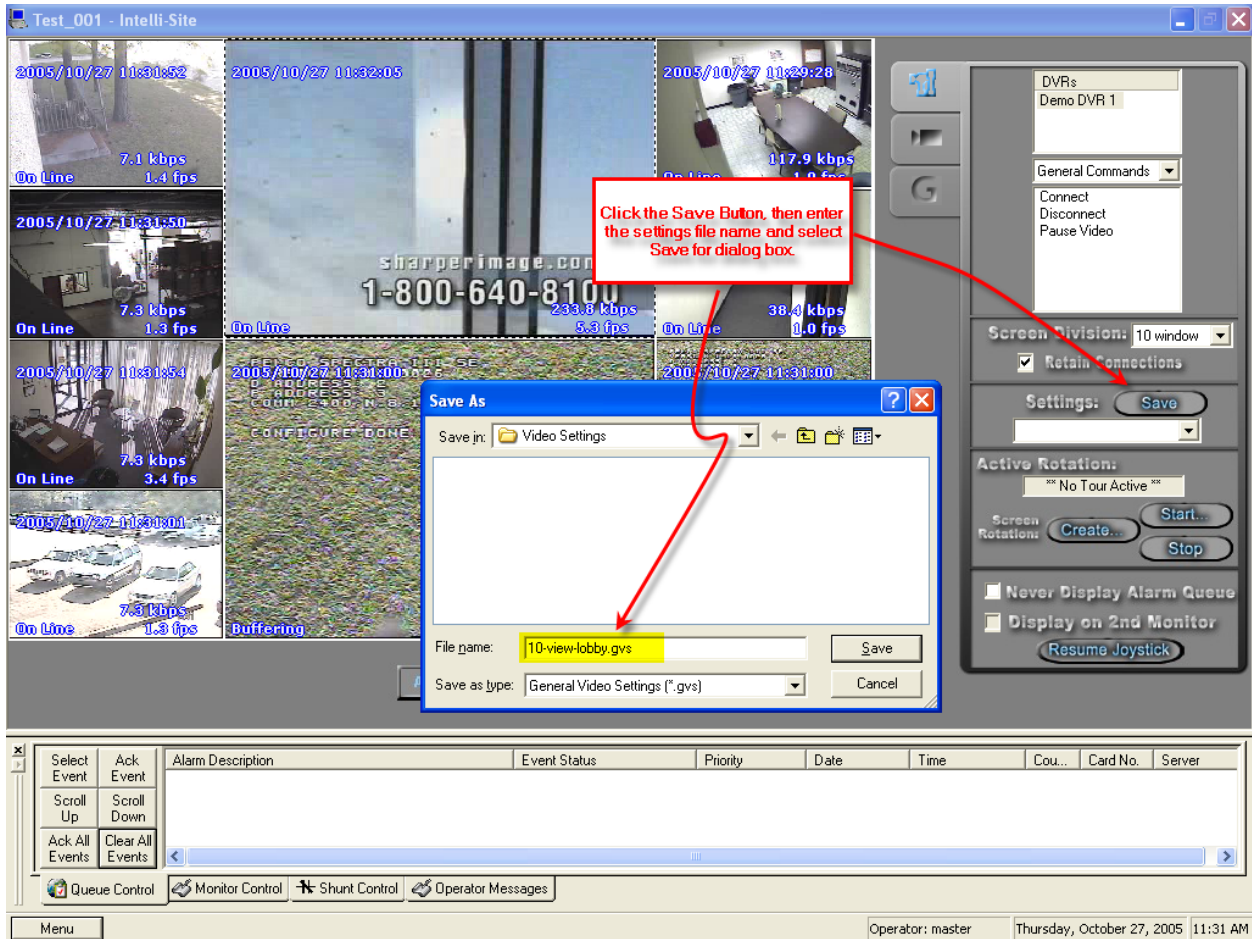
1. Connect – Connects the channel specified for live video streaming.
2. Disconnect – Disconnects the channel specified.
3. Pause Video – Freezes the current video stream on the specified channel.



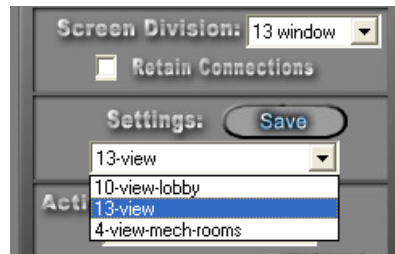
- ii. Change Camera Commands – Lists all of the camera channels available for the selected DVR in the DVRs list. Drag-and-Drop the desired Camera on to the specific view in the Video Display Area.




- iii. PTZ Control Commands – Drag-and-Drop the desired PTZ control command on to the specific view in the Video Display Area in order to execute that command. This, of course, only works if the camera is PTZ-capable.
- c. Screen Division – The Screen Division window allows you to select the number, and layout, of video display windows in the Video Display Area.
  - i. Screen Division Combo Box – allows you to select from 1, 4, 8, 9, 10, 13, 16, 25 or 36 windows for the Video Display Area.
  - ii. Retain Connections – checking this box will retain currently-connected video channels when you switch from one division settings to another.
  - iii. Settings Save – allows you to set up a custom display and save the settings for the custom setup for later recall. An application example of this feature would be to create a display that shows specific video channels from a number of different DVRs that are located in different buildings in the network – say; all lobby cameras from ten-different buildings.

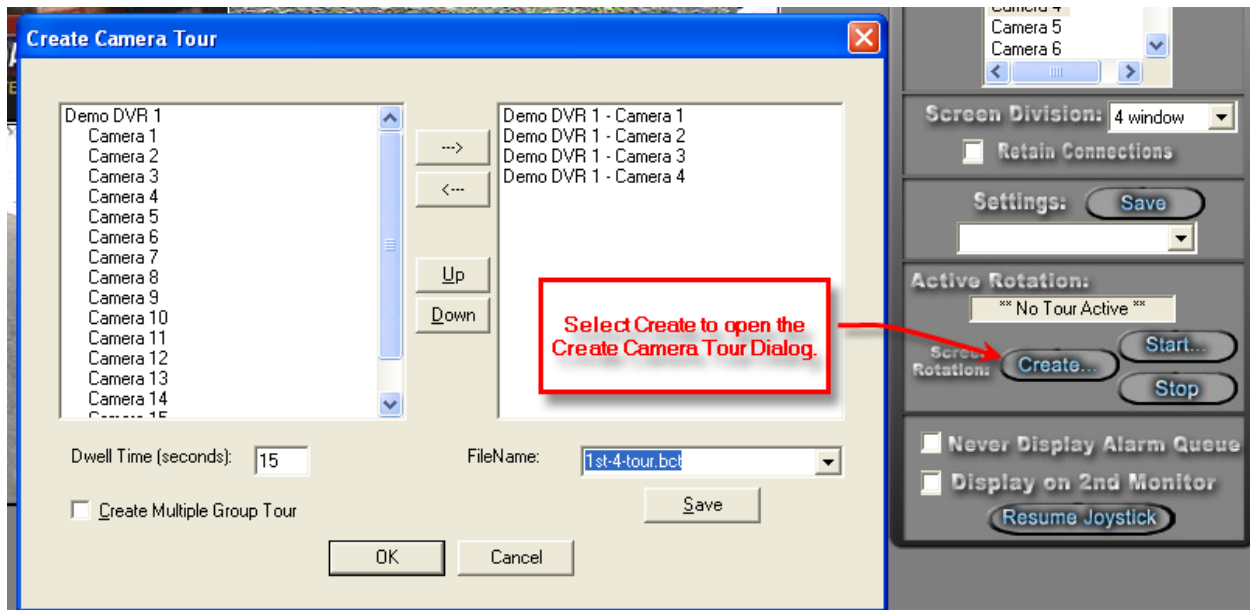


Once these settings are saved they can be instantly retrieved from the Settings Combo-Box.



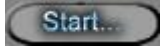

- d. Active Rotation (Video Tours) – This feature allows you to create and run sequential video tours consisting of any number of cameras or even groups of tours consisting of groups of camera groups.

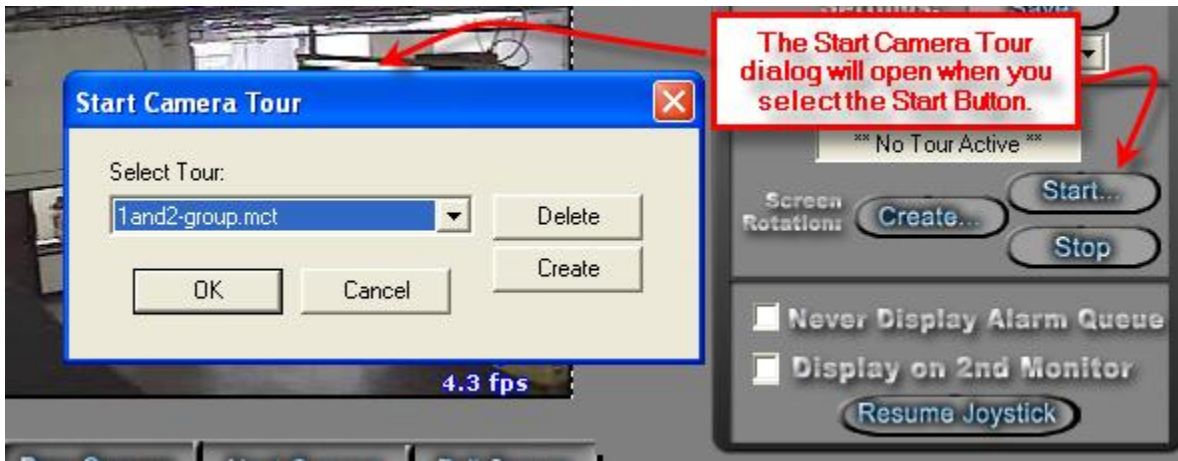
- i. Create a Camera Tour – Select the  button to open the Create Camera Tour dialog. All available cameras will be listed in the left window. Simply use the Add or Delete arrows to add the desired cameras to your tour list in the right window. Next enter a Dwell Time – this is the amount of time a camera will display before switching to the next in the list. Finally, enter a FileName and Select the Save Button. Select the OK Button when finished.




- ii. Create a Group Tour – Select the Create Multiple Tour Group checkbox. When selected, the left window will display all tours previously saved. Simply select the tours you wish to include in the Multiple Group Tour, give it a filename, and hit the Save Button.




- iii. Running a Tour or Multiple Tour Group – Start the tour with the Start Button  and the Start Camera Tour dialog will open. Select the tour you wish to run from the Combo-Box. To stop the tour, select the Stop Button .



- e. Additional settings – Select the Never Display Alarm Queue if you do not wish to see DVR-originated alarms in the alarm queue. Select Display on 2<sup>nd</sup> Monitor if you wish to display the DVR Mode on the 2<sup>nd</sup> Monitor in a dual-monitor workstation. Select Resume Joystick if you wish to control PTZ functions with a Joystick.

2. PTZ Camera Control Tab  – Allows you to control PTZ functionality for a specific, PTZ-equipped camera.



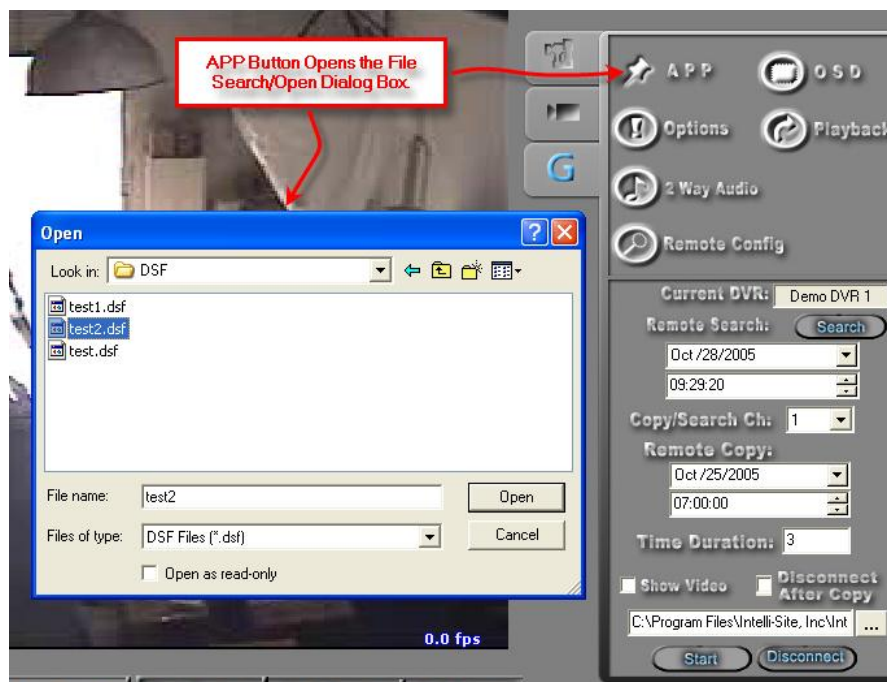
3. Advanced Settings Tab  - Allows you to accomplish a variety of advanced tasks, including: Advanced Post-Processing (APP), On-Screen Display (OSD) Adjustment, Recorder Options, Video File Play-back, 2-Way Audio, Remote Configuration and Remote Video Search/Copy.

- a. Advanced Post Processing (APP)



- Allows you to enhance previously-recorded and saved video clips on a frame-by-frame basis. You can also save individual frames as Windows bitmap (.bmp) or JPEG (.jpg) files for "snap-shot" purposes.





After you select the APP button, the Open File/Search File Dialog allows you to select a previously-saved video file. The video clips must be remote-copied from the DVR using the Remote Search/Copy functionality, and are then saved in a proprietary format as *filename.dsf*. The size of the file will vary, depending on the recorded frames-per-second, recording resolution and frame size, and by the time duration of the recorded clip.



Once the file has been opened, the APP screen will allow for frame-by-frame adjustment of color, Gaussian effects, convergence, and sharpness.

b. On-Screen Display (OSD)



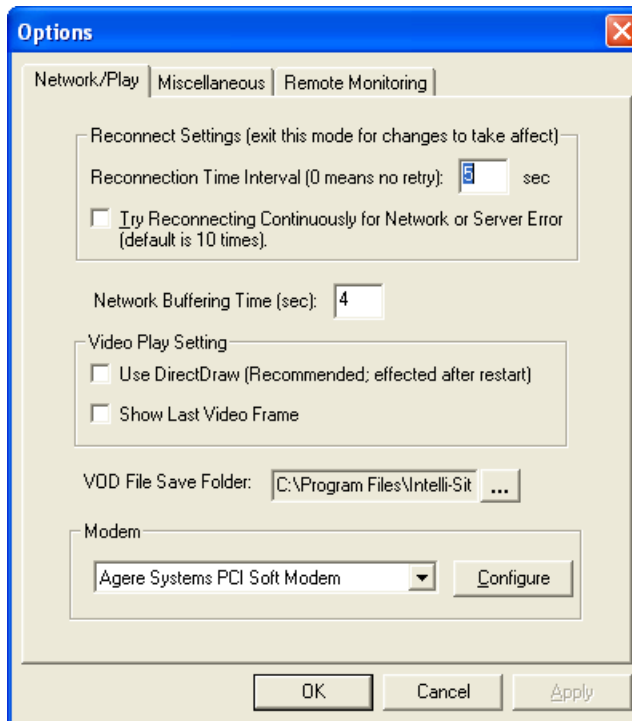
Selecting the OSD button will allow you to cycle through all available OSD options. The OSD will update dynamically as you select the OSD button.

c. Options

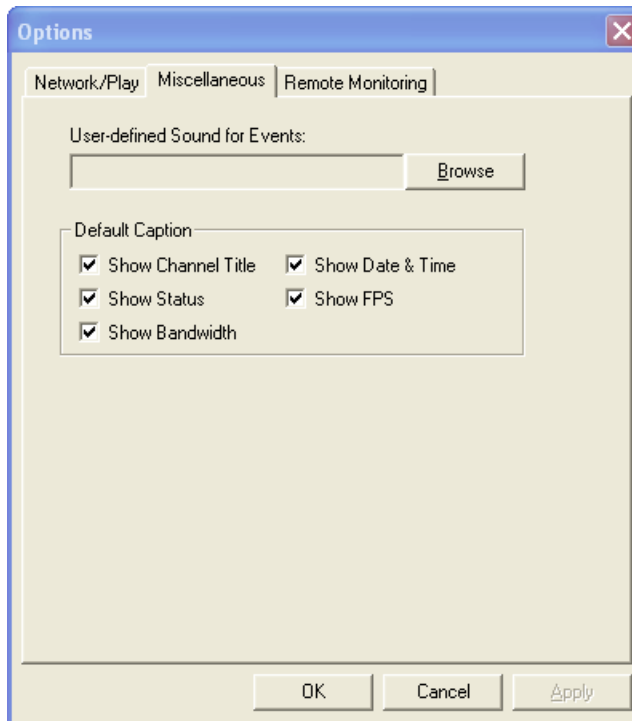


The Options button will open the Options Dialogue that contains three tabs:

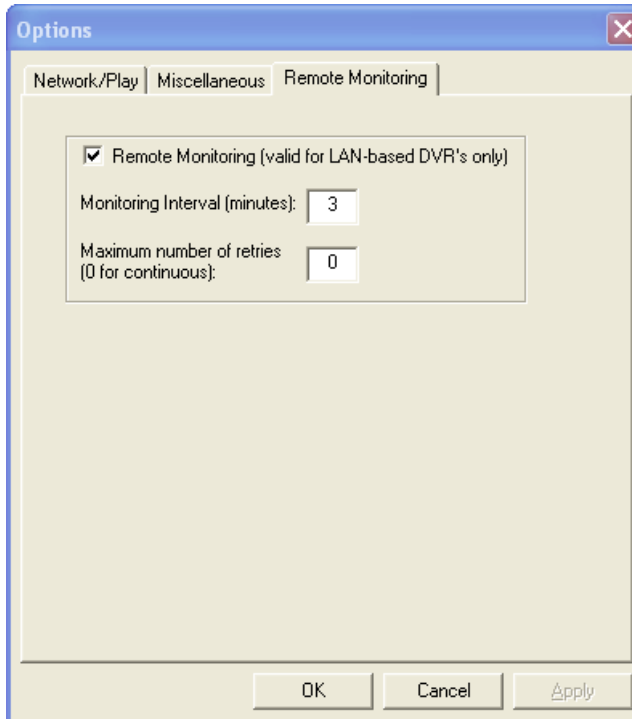
- i. Network/Play – Allows you to adjust Reconnection Settings, Network Buffering, Video Play Settings, Video-On-Demand (VOD) file settings and Modem selection and configuration (for dial-up connection).




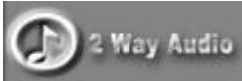
- ii. Miscellaneous – Allows you to select user-defined sounds for DVR-generated events and to adjust OSD captions.




- iii. Remote Monitoring – Allows you to adjust remote monitoring parameters for LAN-based DVRs.



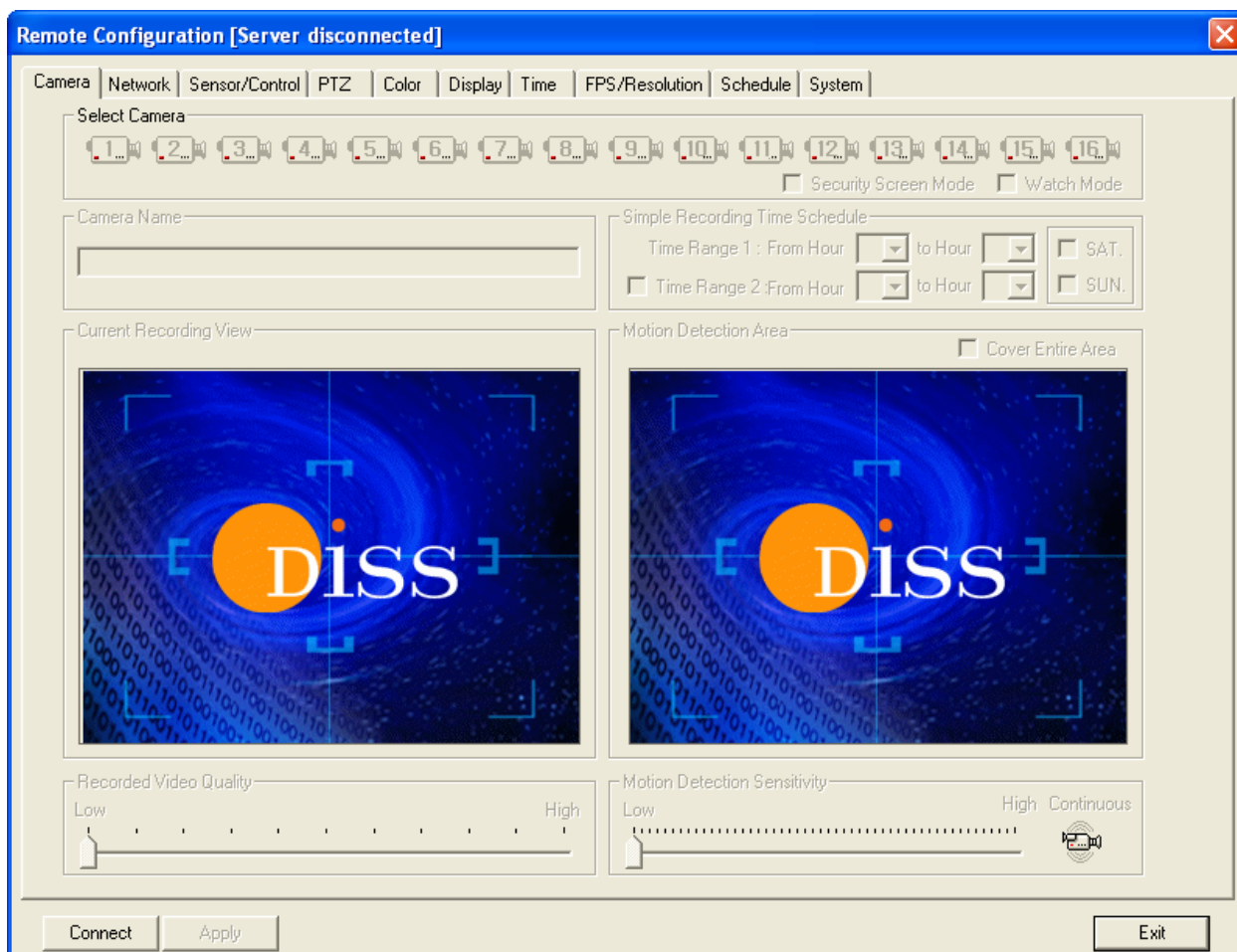
- d. Playback  - Allows you to play previously-saved video clips from disk.

- e. 2-Way Audio  - Allows you to invoke 2-way Audio (for appropriately-equipped Camera channels). Selecting the 2-Way Audio Button will open the 2-Way Audio Control.



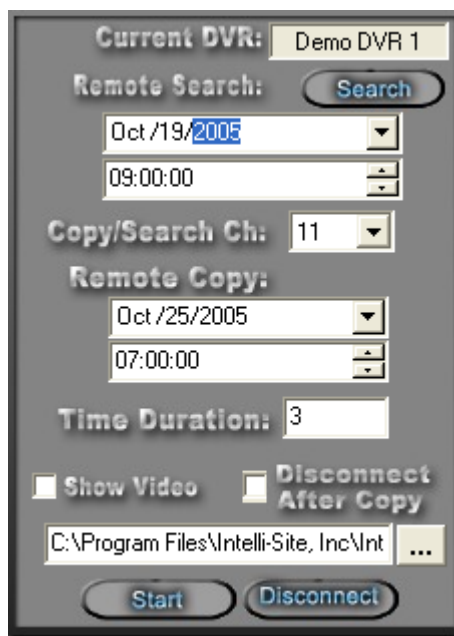
- f. Remote Configuration  - Allows you to configure a variety of parameters for a remote DVR.

This password-protected feature provides, essentially equivalent access to DVR configuration parameters as those that would be available if you logged-in to the DVR locally.



- g. Remote File Search and Copy – Allows you to search for video on a particular DVR (the presence of that video will depend on the storage capacity of the DVR) by date, then copy the video clip from the remote DVR on to another location (another computer or network storage location).

The files copied from a remote DVR are stored in a proprietary format (.dsf) and can be replayed only through the Digiop DVR Mode. The file size will depend on recording resolution and frames-per-second parameters.

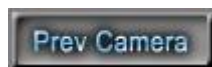


## ***Using the Multi View Mode (Video Display Area)***

The main window (Video Display Area) of multi view consists of a viewing area and four control buttons.

If you double-click on any of the individual video display views, the view will expand to full size. To return, simply double-click on the full-size view.

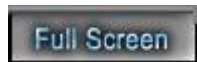
### **Main Video Controls**



**Previous Camera:** Allows user to scroll backwards through available channels.



**Next Camera:** Allows user to scroll forward through available channels.



**Full Screen:** This feature will expand the multi channel view to full screen. Just hit 'Escape' key to return.

Alarm/Events

**Alarm Events:** This feature brings up a dialog that can be used to search for alarm events that are associated with cameras.

**Alarm Events**

Date Range Start: May/18/2005 Date Range End: May/20/2005

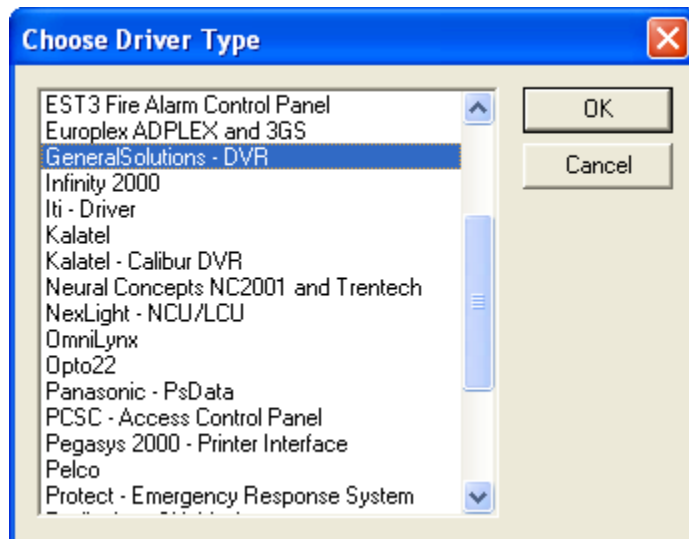
Date	Time	Alarm/Event
05/20/2005	10:50:06	System RTU - V-Point 16
05/20/2005	10:38:12	System RTU - V-Point 16
05/20/2005	10:38:10	System RTU - V-Point 16
05/18/2005	08:03:12	System RTU - V-Point 16
05/18/2005	08:02:52	System RTU - V-Point 16



## Section 5 – General Solutions Digiop DVR Driver Setup

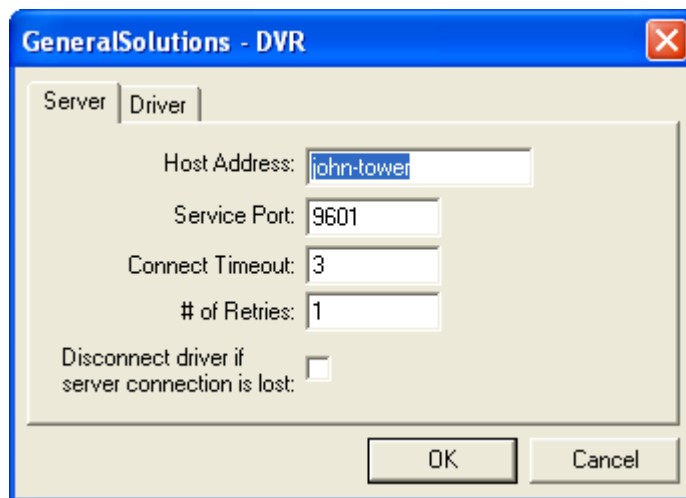
This section discusses the setup of the General Solutions Digiop DVR Driver.

Open the Driver Service window and select the Add button:



Select the 'GeneralSolutions - DVR' item and select OK.

There are no extra configuration fields for the General Solutions Digiop DVR. As with any driver, fill out the Host Address, Domain and other fields as needed.



One General Solutions DVR driver needs to be added for each 'General Solutions DVRs' node in the project tree. This means one driver for each top-level 'GeneralSolutions DVRs' node, NOT for each DVR node.

When the General Solutions DVR driver starts up, it will request status for all corresponding DVRs. This includes input, output and unit communication status. These messages can be viewed in the driver's messages window:

