

Documentation

Milestone Video RTU Guide Version 3.x

OSSI

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Intelli-Site

Security Management Software Milestone 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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Copyright

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Section 1 – Introduction

This section describes the following:

- Overview
- Technical Support Assistance

Overview

A Milestone Video RTU (Receiver/Transmitter Units) are the Intelli-Site software representations of the Milestone Enterprise Engine.

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

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?

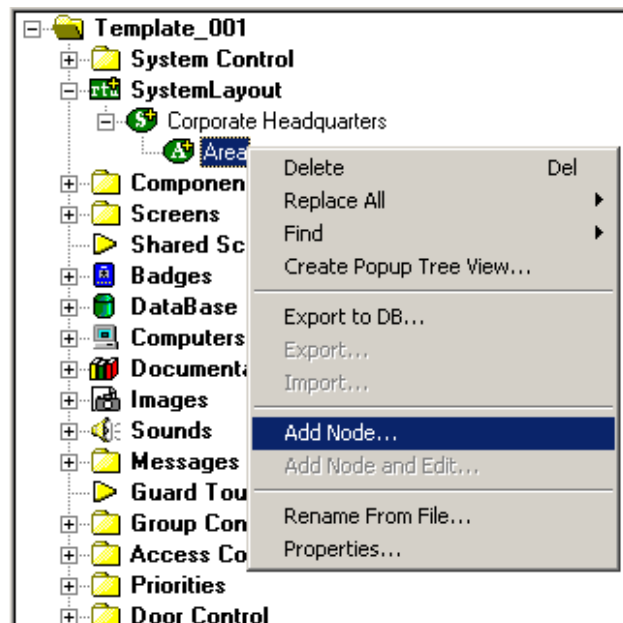
Important Installation Note: Internet Explorer ONLY

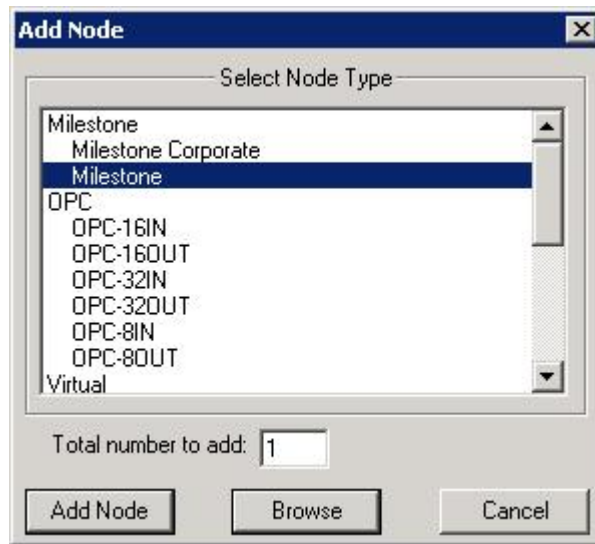
Before using Milestone Video in Intelli-Site, the Milestone 'XProtect Remote Client' software must be installed. This can be done by opening a web browser and typing in the address of the engine (e.g. <http://192.168.12.161>). This will bring up a web page that will allow the User to install the Remote Client. Once the Remote Client has been installed, run the it, connect, and view video from a Milestone server. Section 2 - Milestone Setup (Design Mode)

This section discusses the setup of Milestone node in the project in Graphic Design mode.

Adding Milestone Engine Nodes

Select an Area under the 'SystemLayout' node, right click and select 'Add Node...':





As displayed above, the first step is to add a 'Milestone' node from the list in the 'Add Node' dialog. If the target system is Milestone XProtect Corporate, select the 'Milestone Corporate' entry. The only difference between the two entries is the default settings which are tailored for each type of XProtect server. Once this has been added, the user should select the properties of this node. Select the properties on the newly added node and select the 'Settings' tab and enter the necessary credentials in order to communicate with this Milestone Engine:

Milestone Enterprise Engine - Area Milestone Enterprise Engine

General Protocol Node Settings Settings Notes/Comments

Milestone XProtect Engine

☐ Corporate Version

IP Address or HostName: 192.168.12.130 Retrieve Devices

Authentication Mode: Basic

Login ID: admin Port: 80

Password: xxxxx

Directory to store Recorded Media: C:\ Browse...

Ok Cancel

- 'IP Address or HostName'- Enter in either the IP address or a hostname (computer name).
- 'Port:'- Enter the Port on which to establish communication. This is typically port 80 for Enterprise and port 7563 for Corporate.
- 'Authentication Mode'- The mode selected here depends on how the target Milestone XProtect system was setup. For XProtect Enterprise systems, the only available option is 'Basic'. For XProtect Corporate systems, available options include 'Windows' and 'Windows (Default)'. The 'Windows (Default)' option means that the authentication will use the credentials of the user currently logged into Windows, at the workstation level. If using the 'Windows' option, the Windows account credentials supplied must already exist on the Milestone server.

- 'Login ID:' and 'Password:'- Enter a valid Login ID and Password. These fields are disabled when the 'Authentication Mode' chosen is 'Windows Default'.
- 'Directory to store Recorded Media'- Select a folder where still images (.jpg files) and video (.avi files) will be stored when performing a Snapshot or Recording function. The full path of the saved media is:

Milestone Enterprise version:

<folder specified by User>\Exported
Image\[DEVICE] Camera Name\

Milestone Corporate version:

<folder specified by User>\Exported Image\Camera
Name\

The above settings differ slightly for networks on a domain, as well as clients using the Corporate version of Milestone. The following two images show the correct setup for a Milestone Corporate server ("COR-LAPTOP") on the "Intelli-Site" domain.

Milestone Corporate Engine - Area Milestone Corporate Engine

General Protocol Node Settings Settings Notes/Comments

Name: ID:

Access Level:

Domain:

Node Type: Driver:

Address:

Protocol:

RTU Setup

☐ Virtual Virtual Point: ☐ Retain

Ok Cancel

Notice that the full DNS name of the server on the domain must be typed in, rather than just the computer name alone.

Milestone Corporate Engine - Area Milestone Corporate Engine

General Protocol Node Settings | **Settings** | Notes/Comments

Milestone XProtect Engine

☒ Corporate Version

IP Address or HostName:

Authentication Mode: ▼

Login ID: Port:

Password:

Directory to store Recorded Media:

Remember, when using the "Windows" authentication option, some networks require that you qualify the login in standard UNC notation. For example, the "Login ID:" box would contain "COR-LAPTOP\John" rather than just the username by itself. See below:

Milestone Corporate Engine - Area Milestone Corporate Engine

General Protocol Node Settings Settings Notes/Comments

Milestone XProtect Engine

☒ Corporate Version

IP Address or HostName: Retrieve Devices

Authentication Mode:

Login ID: Port:

Password:

Directory to store Recorded Media: Browse...

Ok Cancel

When all fields have been filled out. Select the 'Retrieve Devices' button. This will connect to the Engine and Auto create tree nodes for:

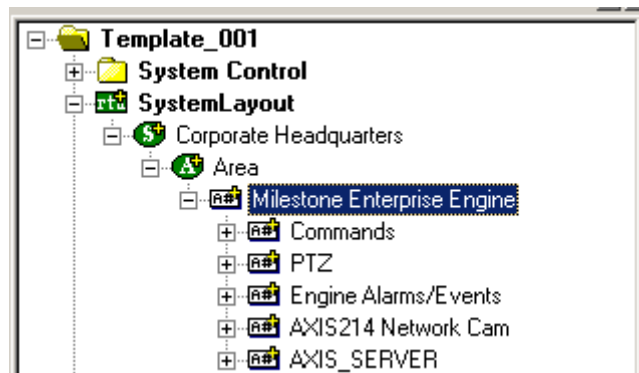
- a.) All devices that are connected to the Engine.
- b.) Any other Engines that are linked to this Engine via the 'Slave Engine' Administration in the Engine's ImageServer Administrator.

NOTE: This process, which started with adding a Milestone Engine node must be repeated for each 'Master Engine'. A Master Engine would be an engine that is not listed in the Slave engine list of another Engine.

NOTE 2: This process of retrieving Engines and Devices can be repeated as many times as needed (for example when a new Engine is brought online).

NOTE 3: If a camera is PTZF enabled, it's tree node text will display the camera name with the text '(PTZ)'.

Once an Engine has been auto created, it's layout will be as follows: Commands, PTZ, Engine Alarms/Events, and 'n' number of Devices (e.g. cameras, camera servers):

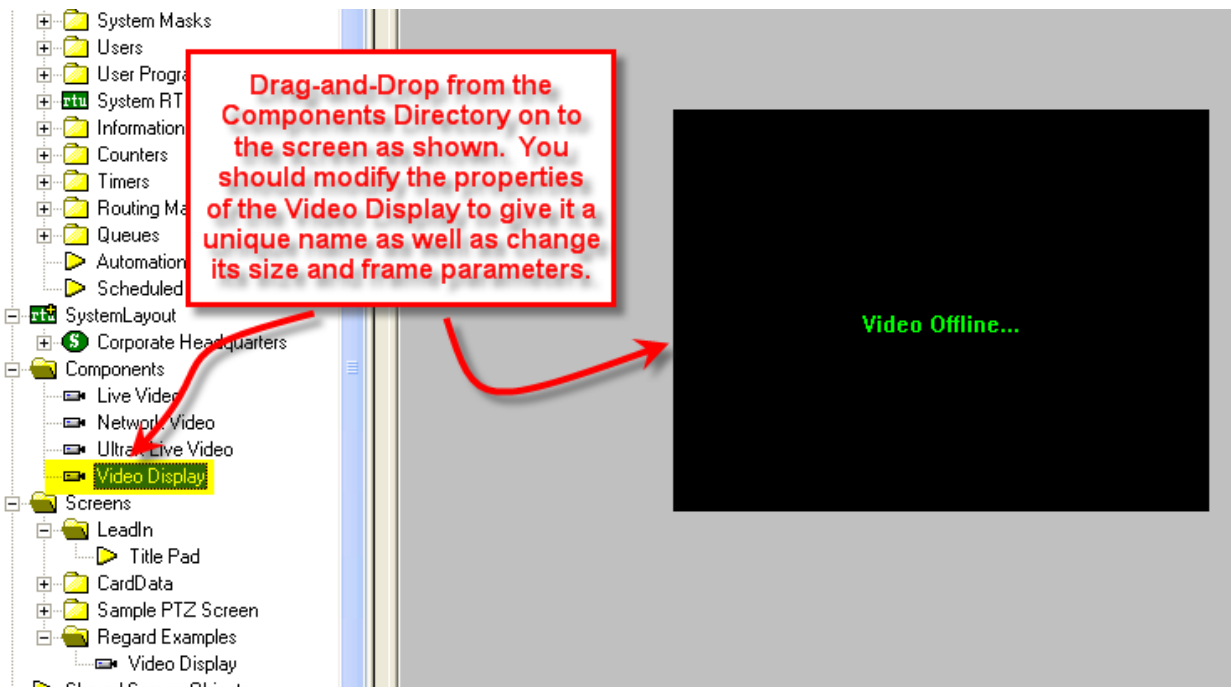


Programming Examples

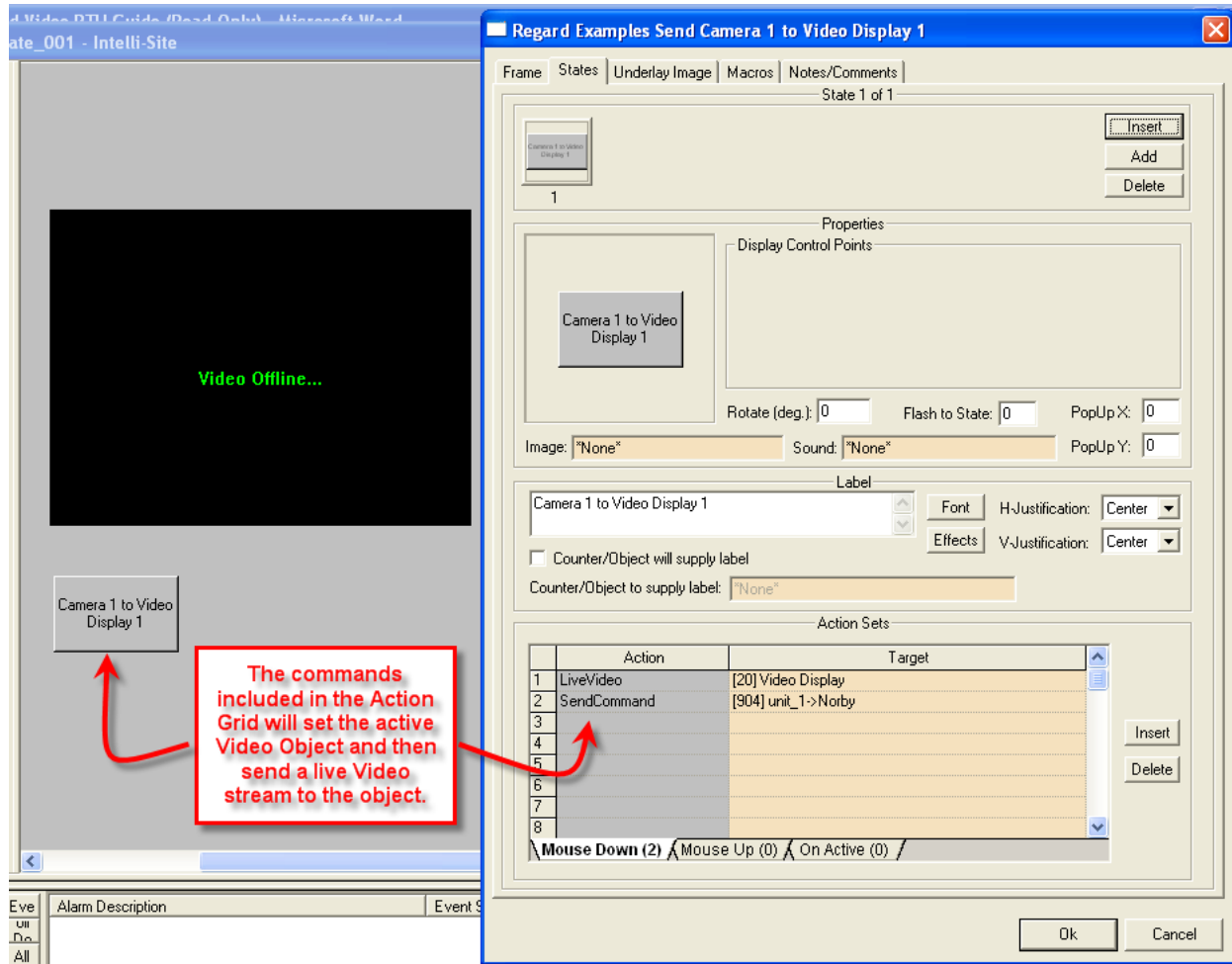
The following section describes some basic programming for Milestone RTU functionality in Run Mode:

The first step in adding Milestone RTU functionality is to create a Video Display Object. The Video Display Object is the display target for any Milestone Video Channel (Camera). You can add as many Video Display Objects to a Screen as you need.

1. In Design Mode Drag-and-Drop a Video Display from the Components Directory on to the Screen.



2. Create a control Screen Object (a button or icon) that directs a video channel (Camera) to the Video Display. The Action for any Milestone command is always SendCommand, and the Target may be any Subnode in the Milestone RTU. In the following example we are sending live video stream (Camera) to the Video Display Object that we created in the previous step.



3. In Run Mode select the button (mouse-down, single left-click). The resultant display should be live streaming video to the Video Display Object:



4. Additional video-related commands can be set up as SendCommand action targets, such as:
 - a. Disconnect – Disconnect the Engine.
 - b. LiveStart – Begin a Live Video stream.
 - c. LiveStop – Stop a Live Video stream.
 - d. IPIX Split Mode 1x1/2x2/3x3- Set the IPIX Split mode. This command is only relevant when connected to an IPIX camera.
 - e. IPIX - Set View- Sets the viewpoint position of the specified IPIX split view. This command is only relevant when connected to an IPIX camera. The following must be configured:

Milestone Enterprise Engine - Commands IPIX - Set View

General Protocol Node Settings | Notes/Comments

Name: IPIX - Set View ID: 302

Access Level: Level 1

Domain: 85

Node Type: General

Address: IPIX_VIEW_0*10*10*10

Protocol:

Ok Cancel

'Address:' – The format is as follows:

IPIX_VIEW_A*B*C*D

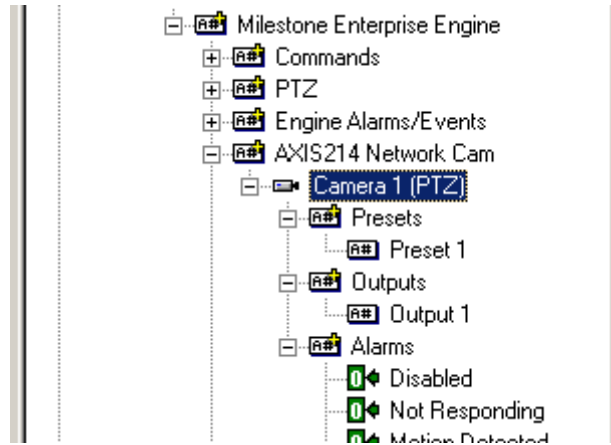
A = The Splitview desired. Values are 0 (1x1), 1 (2x2), and 2 (3x3).

B = The pan value.

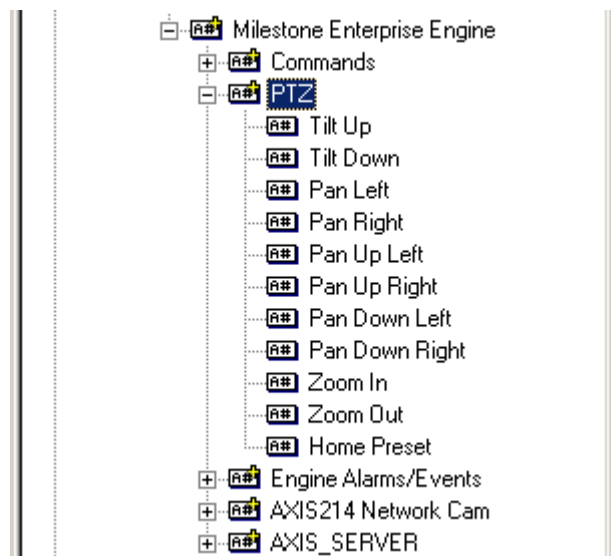
C = The tilt value.

D = The zoom value.

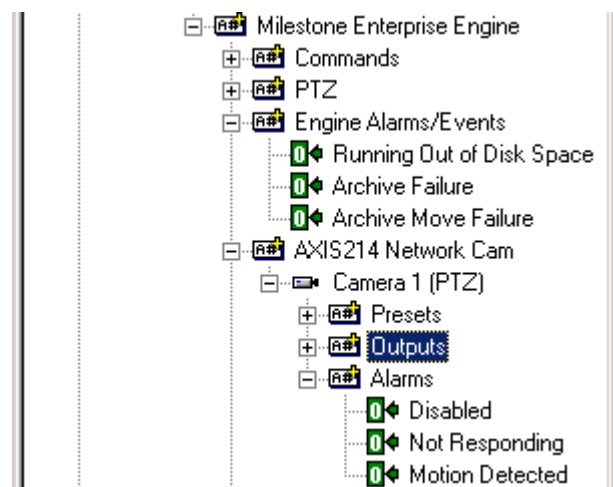
5. Outputs and Presets- Exist under each camera and can be triggered by setting up a button whose Action is SendCommand against the Output Node's On or Off subnodes. Here is the layout in the tree:



6. PTZ Command Nodes ('Tilt Up', 'Pan Right', etc.) can be used can also be used as the target of a SendCommand action to execute the given PTZF command. Commands are located here:



7. Engine Alarms/Events- These nodes are set on when their corresponding alarms are received from the Engine. In order to receive these alarms, as well as camera-specific alarms located under each camera, the Milestone driver under Driver Service must be setup (discussed below). Any alarm node here or under a camera can be used as a display control point for a screen object to give a visual display of the alarm. Both Engine and Camera-specific alarms are located here (green nodes):

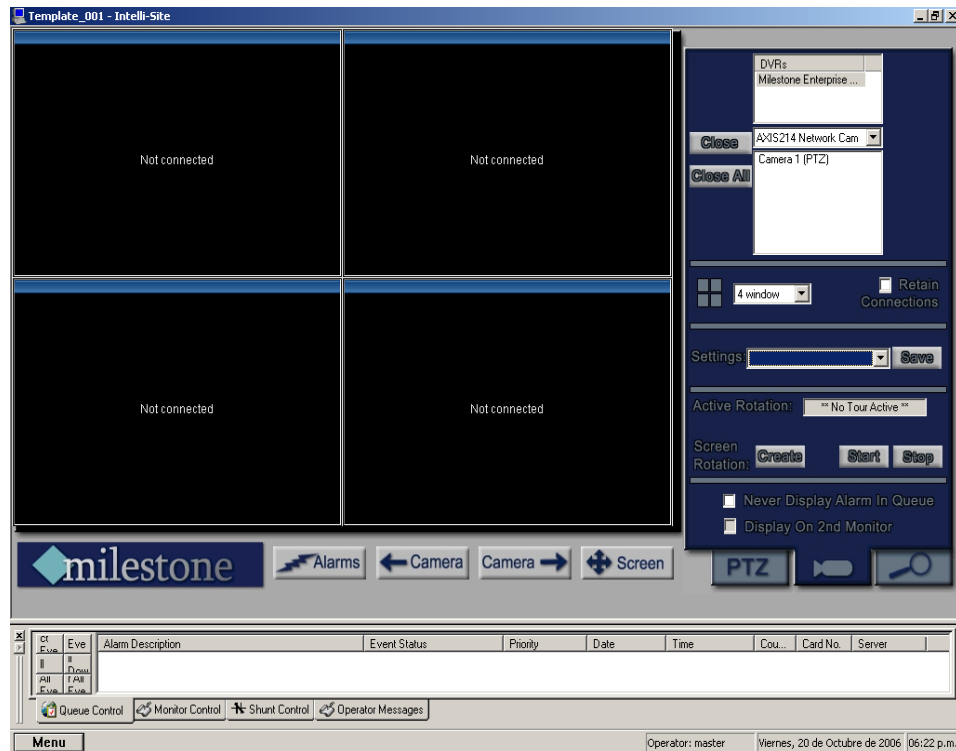


NOTE: Any Event buttons or Generic Events setup in the Engine must be manually added under the 'Engine Alarms/Events' node. This will allow the Event(s) to be reported on when using the Milestone Driver under Driver Service. To create a new Event, right-click on the 'Engine Alarms/Events' node and select 'Add Node'. The 'Address' field must contain the exact name of the Event in order for the Event to be found in the project tree:

Name:	<input type="text" value="General Protocol Node"/>
Access Level:	<input type="text" value="Level 1"/>
Domain:	<input type="text" value="85"/>
Node Type:	<input type="text" value="General"/>
Address:	<input type="text" value="MY_BUTTON_EVENT"/>
Protocol	<input type="text"/>

Section 3 - Milestone DVR Mode

This section discusses the use of the Milestone DVR Multi View Mode.




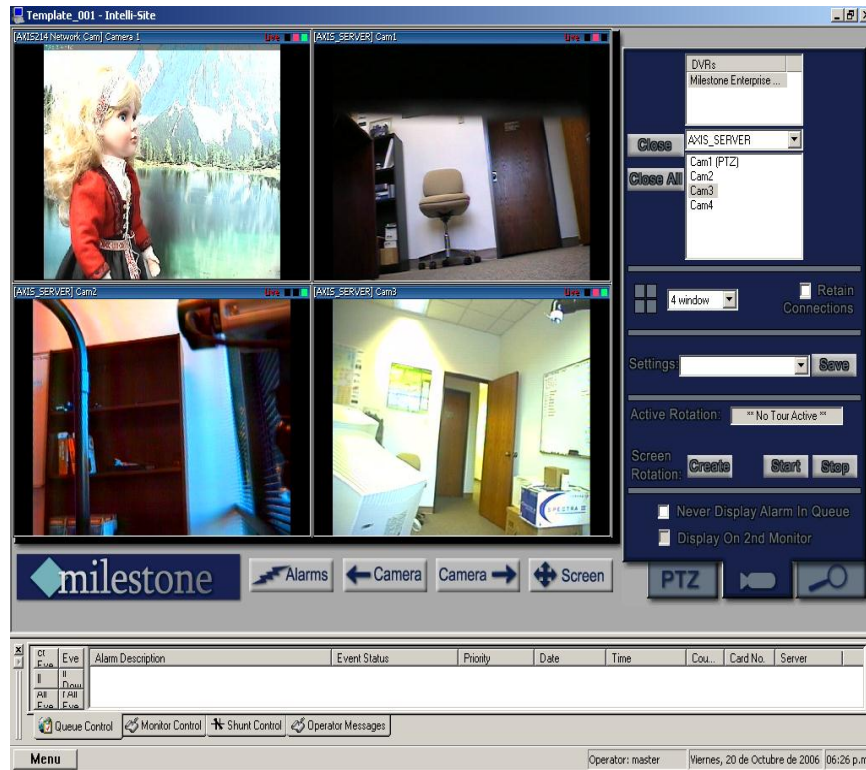
Using the DVR Mode



- Click on the icon on the Application Menu bar.

Quick Start

- On tab 1 , double click on any camera located in the camera list box (next to the 'Close All' button). This will automatically start the live video.



- Double click on any video feed. (For our example were using camera 1) This will enlarge the video to fill the area currently occupied by the n*n channel view. Double click to return.



Multi View Mode

The main window of multi view consists of a viewing area; three control buttons and a three-tab configuration and control area.

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.



Alarms: This feature brings up a dialog that can be used to search for alarm events that associated with Milestone cameras.

Alarm Events

Date Range Start: Date Range End:

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

To associate a Milestone camera with an alarm, drag and drop a Milestone Camera into the 'Camera or System Monitor' field on the properties of an I/O point:

System RTU - Virtual Points V-Point 16

Property Page | Operation | Actions | Commands

Operations

- ☒ RTU Will Transmit
- ☒ Add to Queue on High
- ☐ Add to Queue on Low
- ☐ Auto Clear on Normal
- ☐ Clear only on Normal
- ☐ Acknowledge Required
- ☐ Latch Point
- ☐ Report Required
- ☒ Write to Log File
- ☐ Print as Occurs
- ☐ Print Special

General

Routing Level: All

Pulse Delay: 1000
Value in milliseconds 1000 = 1 Sec.

Action on Alarm

Camera Control

Camera or System Monitor: [1751] unit_1->Camera_1

- ☒ Display Video
- ☒ Stop on Normal

Video Recording

- ☒ Post-Alarm Duration (in seconds): 5
- ☒ Pre-Alarm Duration (in seconds): 5

Alarm Screen: None

Acknowledge Status Point: None

Silence Alarm Sound Point: None

Actions on Queue "Action" Button

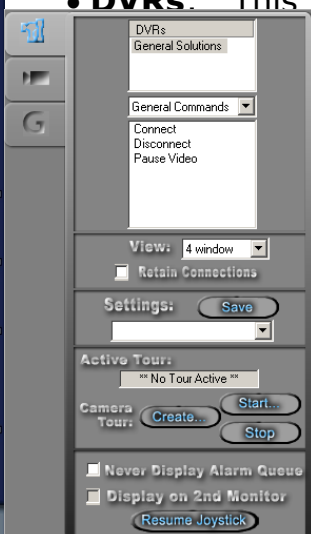
	Action	Target
1		
2		
3		
4		
5		

Insert Delete

Ok Cancel

Tab View Controls

Tab 1 (Connections)

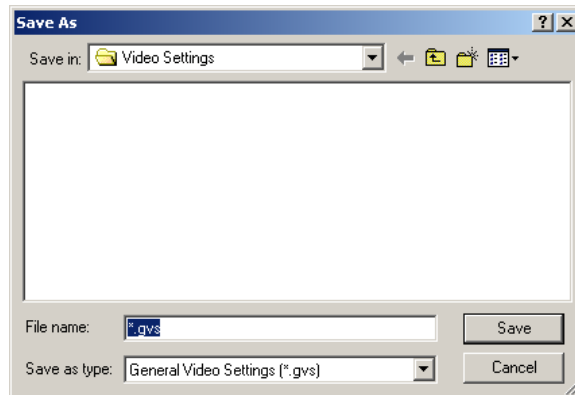


• **DVRs:** This is a list of all the Engines defined in

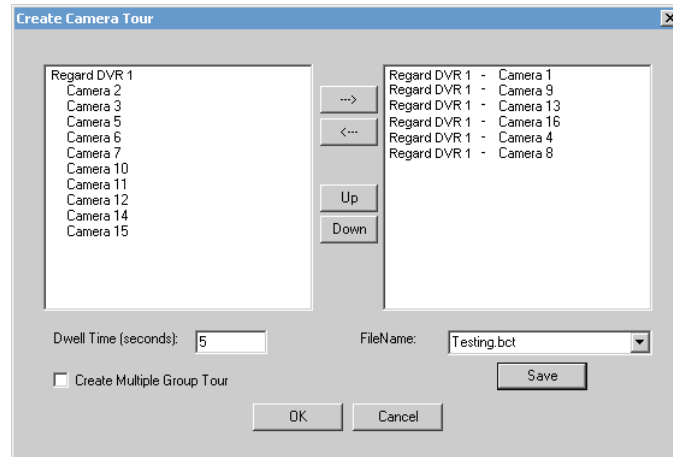
Commands and Controls: This drop contains the devices (e.g. camera servers) Engine above.

Camera Tour: Contains all the cameras for the e. Double-click a camera to start a

- **View:** This pull down box has many choices for viewing configuration. Ranging from 1-36 channels. The video displayed in the controls can be from any number of DVR sources and saved as a setting.
- **Close:** Select this button to close the current video feed.
- **Close All:** Close all video feeds.
- **Retain Connections:** Check this box if you would like to keep video feeds online while changing views.
- **Save Settings:** A user can save configuration settings. The file will contain the cameras and there location in the view.
- **Save:** Press here to bring up the location to save your settings.



- **Settings:** This pull down contains all previously saved settings files.
- **Active Tour:** This will display the current active tour. If no tour is active the following text will appear, ****No Tour Active****. While a tour is active all functionality is disabled except the 'Stop' button, and the full screen toggle button.
- **Create:** This brings up the 'Create Camera Tour' dialog which allows the user to create and edit camera tours:



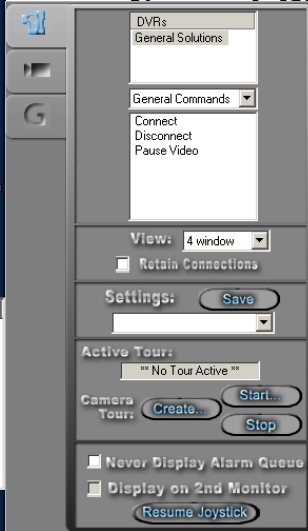
- **Start:** This will display a dialog that allows the user to select a camera tour to begin. Also, from this dialog, the user can delete tours and launch the 'Create Camera Tour' dialog.
- **Stop:** Selecting this button stops the active camera tour.

'Create Camera Tour' Dialog Box:

- In the left half of the screen a listing of the available cameras for a tour is displayed.
- In the right half of the screen is a listing of the cameras already added to the tour.
- Cameras are added and removed from tours by using the two arrow buttons between these windows. The arrow pointing right adds the highlighted camera and the arrow pointing left removes the highlighted camera from the tour.
- The Up and Down buttons are used by highlighting on the camera already added to the tour (listed on the right) and hitting either the up button to move the camera up one in the listing or the down button to move the camera down one in the listing.
- **Dwell Time:** The number of seconds between camera tour rotations (i.e. between switching cameras in a tour).

- **Create Multiple Group Tour:** When selected, the left hand box will display all saved camera tours. The user can move tours to the right hand side to include them in the multi-tour. When a multi-tour is run, the tour will rotate between the cameras in each of its tours after the specified Dwell time.
- **Never Display Alarm Queue:** When selected, any alarm events that are received by the Workstation will not cause the alarm queue to be displayed (while the user is in this view).
- **Display on 2nd Monitor:** When selected, this view is automatically displayed on a 2nd monitor (if available). This view will always be displayed on a 2nd monitor until the option is unselected.

Tab 2 (Playback/Copy Options)



Current DVR: Lists the name of the Engine that is active.

General Commands: Contains all the cameras for this Engine. Cameras are listed in '[DEVICE] Camera Name'

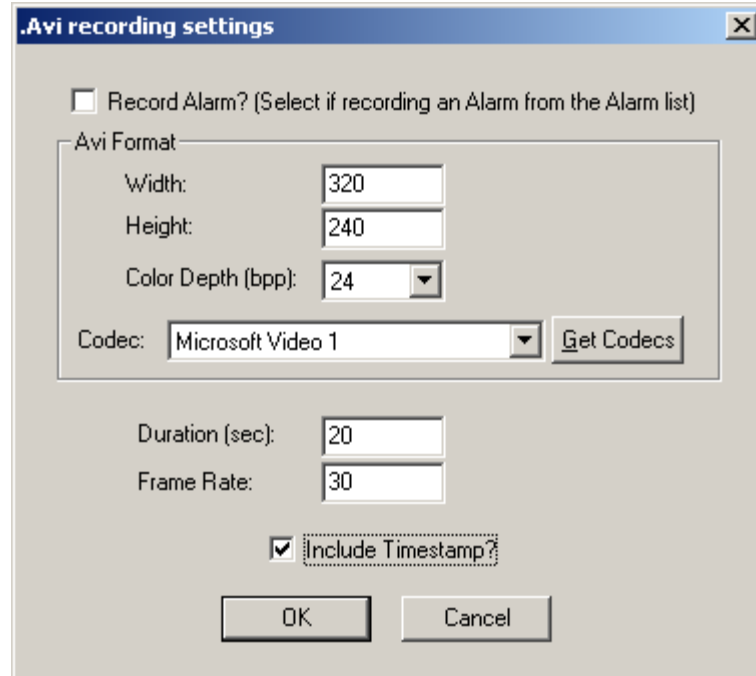
Begin/End: Enter the Start Date/Time for a Playback

Buttons: In order from left to right, top to bottom: Play/Pause, Stop (and Disconnect), Goto the recorded image for this camera, Goto the current or previous sequence, step forward one frame, Goto the last recorded image for this camera.

• **Snapshot:** Save a Snapshot of the current video stream as a JPEG image. This image is saved to the path identified in the Engine's settings. The file name format of the snapshot file will be YYYYMMDDHHMMSS.jpg where:

- i. YYYY = Year (4-digit)
- ii. MM = Month (2-digit)
- iii. DD = Day (2-digit)
- iv. HH = Hour (2-digit - 24-hour format)
- v. MM = Minute (2-digit)
- vi. SS = Second (2-digit)
- vii. MS = Millisecond (2-digit)

• **Record Video:** This brings up the following dialog:



'Record Alarm?'- Select this check box if recording an alarm retrieved and selected in the 'Alarm List' at the bottom of the tab. Leave the checkbox unselected if recording video from the camera selected in the 'Camera' drop-down list at the top using the 'Goto' date/time fields.

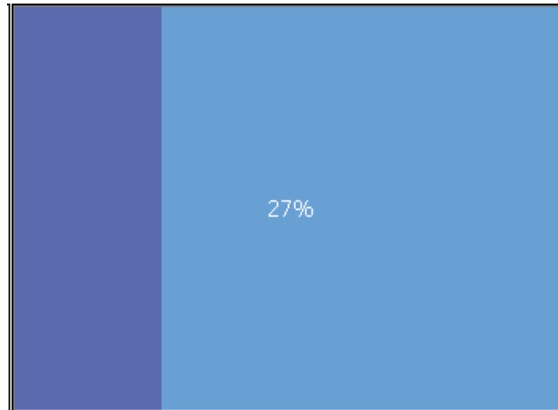
'Avi Format' fields- Enter the Width, Height, color depth and Codec to be used for the recording. Values shown above are the defaults.

'Get Codecs'- Select to retrieve all available codecs on the computer; only codecs that are support the selected 'Avi Format' settings will be listed.

'Duration'- Enter a duration for the recording (the length of the video'. If the duration is larger or smaller than what is actually available on the Milestone server, the video's duration will be automatically adjusted.

'Include Timestamp?'- Select this checkbox if a timestamp is to be displayed in the video. It will appear as the date and time at the top-left corner of the video.

The recording is saved as an AVI file to the path identified in the Engine's settings. The format of the saved video file will be: YYYY_MM_DD_HH_MM_SS.avi where the date and time will identify the start time of the recording. See 'Snapshot' for meanings of each part of the filename. The video screen will show the recording progress:



- **Begin/End-** Select the Start/End date/time values to be used when searching for alarms.
- **Get Alarms-** Select to perform an alarm search for the selected camera using the Start/End date/time values. Alarms recording in the selected date/time frame for this camera are displayed in the 'Alarms' list just below this button:



Tab 3 (PTZF Options)



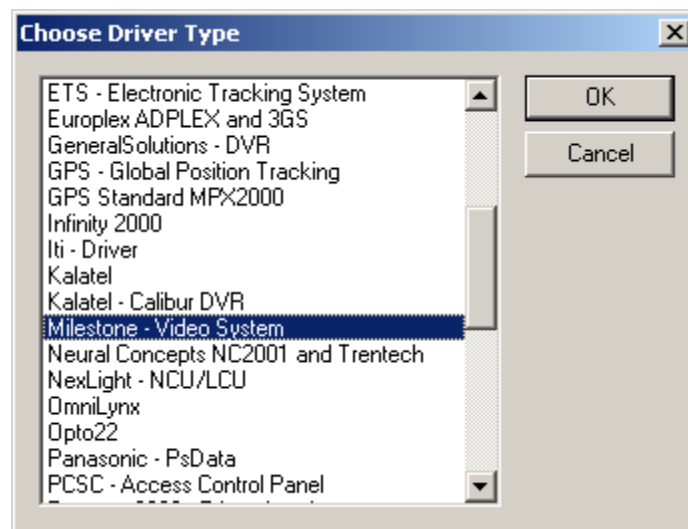
Operations here are performed against the current video feed control.

- **Pan/Tilt:** Use these buttons to Pan/tilt the camera.
- **Zoom:** Use these buttons to Zoom In/Out.
- **Get:** Select this button to populate the 'Presets' drop-down list with all presets for the selected video feed's camera.
- **Goto:** Select this button to goto the selected preset in the 'Presets' drop-down list.

Section 4 - Milestone Engine Driver Setup

This section discusses the setup of the Milestone DVR Driver. This section applies only to Milestone XProtect Enterprise systems. Milestone XProtect Corporate systems do not currently supply the information needed by the Milestone Engine Driver.

Open the Driver Service window and select the Add button:



Select the 'Milestone- Video System' item and select OK.

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

The screenshot shows the 'Milestone - Video System' configuration window with the 'TCP/IP' tab selected. The window has four tabs: 'Server', 'Driver', 'Send Queue', and 'TCP/IP'. The 'TCP/IP' tab contains the following settings:

- Host Address:** A text box containing 'norby-lap-w2k'.
- Service Port:** A text box containing '9601'.
- Connect Timeout:** A text box containing '3'.
- # of Retries:** A text box containing '1'.
- Disconnect driver if server connection is lost:** A checkbox that is currently unchecked.

One Milestone driver needs to be added for each 'Milestone Enterprise Engine' node in the project tree. The only special consideration for this driver is the 'Port' option on the 'TCP/IP' tab. This value must match the value set in the Milestone Administrator's 'Milestone XProtect Central Settings' dialog's 'Engine Port' field. The default value for this setting is 1237.

When the Milestone driver starts up, it will request status for all connected devices (cameras, camera servers, etc.). The driver will also receive alarm notifications regarding alarms such as Motion detection and Events (Event Buttons and Generic aswell). The Milestone Engine will send periodic 'engine alive' heartbeat messages to notify the driver that the Engine is still communicating. These messages can be viewed in the driver's messages window:

