





Documentation

Milestone MIP Video RTU Guide

Version 3.x

Intelli-Site

Security Management Software Milestone MIP Video RTU Guide

PC Software RTU Interface Guide For Windows 7 SP1, 2008 R2 SP1

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OSSI 10125 S. 52nd St. Franklin, WI 53132-8677

Toll Free:	888-488-2623
Direct:	262-522-1870
FAX:	262-522-1871

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Table of Contents

Copyright	3
Trademarks	3
Table of Contents	4
Section 1 – Introduction Overview Technical Support Assistance	5 .5
OSSI Headquarters Technical Support Important Installation Notes	.6 .6 .6 .7
Section 2 – Project Configuration	8
Adding Milestone XProtect Site Nodes Programming Examples	.8 14
Adding Milestone XProtect Site Nodes Programming Examples	.8 14 20 20 22 22 22 23

Section 1 – Introduction

This section describes the following:

- Overview
- Technical Support Assistance

Overview

A Milestone MIP Video RTU (Receiver/Transmitter Unit) is the Intelli-Site software representations of a Milestone XProtect site. Currently only Milestone XProtect Corporate edition sites are supported.

Technical Support Assistance

OSSI Headquarters

10125 S. 52nd St. Franklin, WI 53132-8677

Toll Free:	888-488-2623
Direct:	262-522-1870
Fax:	262-522-1871

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: <u>support@ossi-usa.com</u> Fax: 262-522-1871 (Attention OSSI Technical Support) Support: 262-522-1870

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

- Product version number, found by selecting the **About** ¹ 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 Notes

XProtect Corporate Sites

XProtect Corporate sites use the server's DNS name as part of its authentication token. If the XProtect server is not accessible by its DNS name, then features such as attaching video streams may fail. For more information, refer to Milestone's documentation or contact Milestone for support.

XProtect Enterprise Sites

XProtect Enterprise sites are not supported in this release of the Milestone MIP Video RTU. Use the "Milestone" RTU driver for XProtect Enterprise sites.

Milestone Video RTU Driver

Using both the "Milestone" and the "Milestone MIP" drivers in the same project is not supported. Running both on the same machine has shown stability issues during product testing.

Section 2 – Project Configuration

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

Adding Milestone XProtect Site Nodes

Select an Area under the "System Layout" node, right click and select "Add Node...":

🖃 Template_001		
👜 🙆 System Control		
📄 🌃 System Layout		
😑 🚯 Corporate He	adquarters	
Area		
🗄 🗠 🙋 Componen	Delete	Del
	Replace All	•
Shared Sc	Find	
Badges	Tina	,
🗄 📕 DataBase	Create Popup Tree View	
	5	
Document	Export to DB	
⊡…∰ Images	Export	
	Import	
Hessages	Importan	
👂 Guard Tou	Add Node	
🕂 🖓 🔄 Group Cor		
Access Co	Add Node and Edit	
Priorities	Bronortion	
⊞… 🔁 Door Conti	Properties	

Add Node
Select Node Type
Milestone MIP (Corporate)
OPC OPC-16IN OPC-16OUT OPC-32IN OPC-32OUT OPC-8IN OPC-80UT Pelco Pelco DigitalSENTRY
Total number to add: 1
Add Node Browse Cancel

As displayed above, the first step is to add a node from the list in the "Add Node" dialog. If the target system is Milestone XProtect Corporate, select the "Milestone MIP (Corporate)" entry. 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 XProtect site:

Milestone Corporate Site (MIP) - Area Milestone Corporate Site (MIP)
General Protocol Node Settings	Settings Notes/Comments
	Milestone XProtect Site
Server Type:	XProtect Corporate Edition 👻
Host Name or IP:	milestone-corp.example.com Port:
Authentication Mode:	Windows Default 👻
Usemame:	
Password:	
	Import Configuration
Directory to store Recorde	d Media:
C:\Media	Browse
	Ok Cancel
<u></u>	

- "Server Type" Select the type of server to connect to. Currently only "XProtect Corporate Edition" is supported.
- "Host Name or IP" Enter in either the hostname (computer name) or the IP Address of the Milestone XProtect server.
- "Port" Enter the Port on which to establish communication. This is typically port 80. Leave this blank to use the default port for the current server type.
- "Authentication Mode" The mode selected here depends on how the target Milestone XProtect system was setup. For XProtect Corporate systems, available options include "Windows" and "Windows (Default)". The account credentials supplied must already exist on the Milestone server.

The "Windows (Default)" option means that the authentication will use the credentials of the user currently logged into Windows, at the workstation level.

The "Windows" option uses the entered username and password to log into the Milestone XProtect site server. Remember, when using the "Windows" authentication option, some networks require that you qualify the login in standard UNC notation.

- For example, the "Username" box would contain "PC-NAME\User" or "DOMAIN-NAME\User" rather than just the username by itself. (See the screenshot on page 12.)
- "Username" 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 paths of the saved media are noted below.

For saved JPEG images:

<MediaFolder>\<ImageDateTime> <CameraName>.jpg

For saved AVI videos:

<MediaFolder>\<StartDateTime> <CameraName>.avi

<MediaFolder> is the folder configured in "Directory to store Recorded Media".

<CameraName> is the name of the current camera.

<ImageDateTime> is the date and time of the currently displayed image in ISO-like date format ("YYYY-MM-DD_hhmmss").

<StartDateTime> is the starting date and time of the current recording in ISO-like date format ("YYYY-MM-DD_hhmmss").

Milestone Corporate Site (MI	P) - Area Milestone Corporate Site (MIP)
General Protocol Node Setting	s Settings Notes/Comments
	Milestone XProtect Site
Server Type:	XProtect Corporate Edition 👻
Host Name or IP:	milestone-corp.example.com Port:
Authentication Mode:	Windows
Usemame:	PC-NAME\User
Password:	•••••
Directory to store Record	Import Configuration ed Media:
C:\Media	Browse
	Ok Cancel

When all fields have been filled out, select the "Import Configuration" button. This will connect to the Engine and automatically create tree nodes for:

- a.) All recorders in the site configuration.
- b.) All cameras and camera groups for each recorder.
- c.) Camera PTZ presets for PTZ cameras.
- d.) Supported recorder and device events.

Once an Engine has been auto created, it's layout will be as follows: "Commands", "PTZ Commands", and recorders with their cameras, presets, and events.



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.

d Video DTU Cuido (Desd Oelu) - Microsoft Word ate 001 - Intelli-Site	Regard Examples Send Camera 1 to Video Display 1
	Frame States Underlay Image Macros Notes/Comments State 1 of 1
Video Offline	Properties Camera 1 to Video Display 1 Rotate (deg.): 0 Flash to State: 0 PopUp X: 0
	Image: "None* Sound: "None* PopUp Y: 0
Come 1 la Victoria	Label Camera 1 to Video Display 1 Font HJustification: Center Effects V-Justification: Center Counter/Object will supply label Counter/Object to supply label None*
Display 1	Action Sets
The commands included in the Action Grid will set the active Video Object and then send a live Video stream to the object.	Action Target 1 LiveVideo [20] Video Display 2 SendCommand [904] unit_1>Norby 3
Eve Alarm Description Event 9	Ok Cancel

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:
 - Disconnect

Disconnects the current video camera or playback stream (and microphone if one is associated with the camera).

- **Start Recording** Start recording the current camera.
- **Stop Recording** Stop recording the current camera.

5. PTZ Presets

Exist under each camera and can be triggered by setting up a button whose Action is SendCommand with the PTZ preset node. The list of presets is updated with "Import Configuration" on the RTU node. The presets must be configured and on the Milestone XProtect server or imported from the camera in Milestone XProtect.

Here is the layout in the tree:



6. PTZ Commands

("Tilt Up", "Pan Right", etc.) can be used can also be used as the target of a SendCommand action to execute the given PTZ command.

Send a "PTZ Stop" command to stop PTZ movement, especially after a movement command. A common way to do this is to send a movement command on the "Mouse Down" action grid and then send the stop command in the "Mouse Up" action grid.

PTZ Speed commands (and specific speeds like "Pan Speed Up") increase or decrease the current speed for panning, tilting, and/or zooming by 10%. When cameras first connect to a video display, they are at 100% speed.

PTZ Commands are located here:

🖮 🎰 Milestone MIP (Corporate)
🖶 🕮 Commands
🖨 📾 PTZ Commands
Home Preset
PTZ Stop
🕮 Tilt Up
Tilt Down
Pan Left
🚥 🕮 Pan Right
🚥 🕮 Pan Up Left
🚥 🕮 Pan Up Right
🚥 🕮 Pan Down Left
🚥 🎟 Pan Down Right
Zoom Out
Iris Close
🚥 🎟 PTZ Speed Up
🚥 🕮 Pan Speed Up
🔤 🕮 Pan Speed Down
Tilt Speed Up
Tilt Speed Down
🕮 Zoom Speed Up
🛲 Zoom Speed Down
📩 📾 Milestone Corp Recording Server

7. Recorder Events and Device Events

These nodes are set on when their corresponding alarms are received from the XProtect site. In order to receive these alarms, as well as camera-specific alarms located under each camera, the "Milestone MIP" driver under Driver Service must be setup. See "Section 4 – Milestone MIP Driver Setup" for Driver Service configuration.

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 Recorder and Camera-specific alarms are located here (green nodes):



Section 3 – Milestone MIP DVR Mode

🖶 Template_001 - Intelli-Site		
Not connected	Not connected	DVRs Milestone-Corp Recor Closse Closse All Pelco P1220 (192.16 Axis 216FD Camera (
Not connected	Not connected	4 window Connections Settings: Serve Active Rotation: ** No Tour Active ** Screen Rotation: Start Never Display Alarm In Queue Display On 2nd Monitor
milestone	ms Camera Camera -> + Screen	PTZ D
X Select Ack Event Event Alarm Description Scroll Down Ack All Ack All Clear All events Events Events Image: Alarm Description Image: Ack All Clear All events Image: Ack All Clear All Image: Alarm Description Image: Alarm Description Image: Alarm Description Image: Alarm Description Image: Ack All Clear All Image: Alarm Description Image: Alarm Description Image: Ack All Clear All Image: Alarm Description Image: Alarm Description Image: Alarm Description Image: Alarm Description Image: Alarm Description	E vent Status Priority Date	Time Cou Card No. Server
Menu	Ot	perator: master Tuesday, September 01, 2015 5:17 PM

This section discusses the use of the Milestone MIP 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 threetab configuration and control area.

Main Video Controls

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

Note that these alarms are from Intelli-Site, not alarms from Milestone XProtect.

larm Events			
Date Range Sta Aug/29/2015	rt:	Date Range End: Sep/1/2015 🔹	Retrieve
Date	Time	Alarm/Event	Description
08/30/2015	18:07:58	System RTU - V-Point 1	Point ON
Plau	Rause	Chap	
Flay	Fause	3000	
		Close	

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. If video recording is checked, bookmarks will be created in the Milestone XProtect site for the duration of the alarm.

General Protocol Node Settings Oper	ration Actions Commands Notes/Comments
General Protocol Node Settings Operations Operations Image: RTU Will Transmit Image: RTU Will Transmit Image: RTU Will Transmit Image: Rtl Image: Rtl	Actions Commands Notes/Comments Action on Alam Camera Control Camera or System Monitor: [1290] Milestone MIP (Corporate)->Pelc Display Video Stop on Normal Video Recording Image: Post-Alarm Duration (in seconds): Image: Post-Alarm Post-Alarm Image: Post-Alarm Post-Alarm Image: Post-Alarm Post-Alarm Image: Post-Alarm Post-Alarm Image: Post-Alarm Post-Alarm
None	"None"
A	Actions on Queue "Action" Button
Action 1 2 3 4	Target Insert Delete
	Actions on Queue Selection
Action 1 2 3 4	Target Insert Delete



Tab View Controls

Tab 1 (Connections)



• **DVRs**: This is a list of all the XProtect site recorders defined in the tree.

• **Camera Commands and Controls:** This drop down list contains the devices (e.g. camera servers) for the selected recorder above.

• **Cameras list:** Contains all the cameras for the selected recorder and camera group. Double-click a camera to start a live video feed.

• **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.

🖶 Save As					×
Save in: 🔒 🛚	/ideo Settings	•	G 🤌 📂 🛄 -		
Name	*		Date modified	Туре	Size
		No items	match your search.		
File name:	*.gvs				Save
Save as type:	General Video Settings (*.gvs)			•	Cancel

• **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:

Create Camera Tour	×
Regard DVR 1 Camera 2 Camera 3 Camera 5 Camera 6 Camera 6 Camera 7 Camera 10 Camera 11 Camera 14 Camera 14 Camera 15	→ Regard DVR1 - Camera 1 Regard DVR1 - Camera 9 Regard DVR1 - Camera 13 <
Dwell Time (seconds): 5	FileName: Testing.bct
Create Multiple Group Tour	Save
<u> </u>	Cancel

• **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 2^{nd} Monitor**: When selected, this view is automatically displayed on a 2^{nd} monitor (if available). This view will always be displayed on a 2^{nd} monitor until the option is unselected.

Tab 2 (Playback/Copy Options)



• **Current DVR:** Lists the name of the recorder or site that is currently active.

• **Camera:** Contains all the cameras for this recorder. The format is:

o [CameraGroup] -> [CameraName]

• **Goto:** Enter the Start Date/Time for a Playback Query.

• Playback buttons:

In order form left to right, top to bottom:

- Play/Pause Pause or play at normal speed
- Stop Playback play stop
- Begin Go to the first recorded image for this camera
- Previous Frame Step back one frame
- Rewind Play in reverse direction. Will double speed each time it is clicked.
- Fast-forward Play in forward direction.
 Will double speed each time it is clicked.
- Next Frame Step forward one frame
- End Go to the last recorded image for this camera.

Note: There are usually 10 frames per second.

• **Snapshot:** Save a Snapshot of the current video stream as a JPEG image. This image is saved to the path identified in the RTU node's settings.

The file name format of the snapshot file will be in an ISO-like date format ("YYYY-MM-DD_hhmmss") where:

- i. YYYY: = Year (4-digit)
- ii. MM: = Month (2-digit)
- iii. DD: = Day (2-digit)
- iv. hh: = Hour (2-digit, 24-hour)
- v. mm: = Minute (2-digit)
- vi. ss: = Second (2-digit)

• Record Video: This brings up the following dialog:

.Avi recording settings					
Record Alarm? (Select if recording an Alarm from the Alarm list)					
Width: 640					
Height: 480					
Color Depth (bpp): 24 👻					
Codec:					
Duration (sec): Frame Rate: 30					
Include Timestamp?					
OK Cancel					

"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.

• **Begin/End** - Select the Start/End date/time values to be used when searching for alarms.

• **Get Alarms** - Select to perform search for recordings 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 (PTZ 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 activate the selected preset in the "Presets" drop-down list.

Section 4 – Milestone MIP Driver Setup

This section discusses the setup of the Milestone MIP RTU Driver for Milestone XProtect Corporate sites.

In the Driver Service window, click the Add button:



Select "Milestone MIP (.NET)" and click OK.

On the Driver tab, make sure the Domain value matches the Domain for the desired RTU node in the project.

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

Milestone MIP (.NET)				
Server Driver				
Display Name:	MilestoneMip 0			
Host Address:	LARA-VDEV7			
Service Port:	9601			
Connect Timeout:	3			
# of Retries:	1			
Disconnect driver if server connection is lost:				
	OK Cancel			

One Milestone driver needs to be added for each Milestone MIP RTU node (per Milestone site, NOT per-recorder) in the project tree.

When the Milestone driver starts up, it will request status for all connected devices (cameras, camera servers, etc.). The Milestone MIP driver will send periodic "engine alive" heartbeat messages to notify the driver that the driver is still communicating. These messages can be viewed in the driver's messages window.