Gallagher Command Centre
Milestone VMS Integration 8.10
(Supports Command Centre 7.80 or later CC release)

C12730

Release Note

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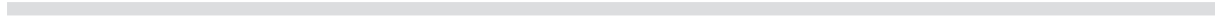
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Contents

1   Introduction

This release note is for the 'Milestone VMS Integration' of Gallagher Command Centre (CC).

1.1   Purpose

The 'Milestone VMS Integration' integrates Command Centre with the Milestone Video Management System (VMS). It has been developed using the Milestone SDK 2019 R1.

1.2   Functionality

This integration provides the following functionality:

1. Live video viewing

- Drag and drop a camera icon from a site plan to a camera tile to view live video;
- Find a camera directly within a camera tile to view live video;
- Pre-configure a camera tile to constantly view live video from one camera;
- Pre-configure a camera tile to display live video in response to an event (e.g. Door event or Intercom event);
- Place multiple camera tiles alongside each other to view video from multiple cameras simultaneously (up to 16 camera tiles can be used to simultaneously display footage on a single Viewer);
- Adjust the camera's Pan, Tilt, and Zoom - as supported by the camera;
- Move a camera to a set position (preset) - as supported by the camera;
- Capture an image of the current frame (the image is saved as a .jpg file to the clipboard).

2. Stored video viewing

Video is stored by the Milestone system. Video is retrieved by Command Centre and displayed in the Command Centre VMS user interface.

- View stored video associated with an alarm (video associated with an alarm is indicated by a filmstrip icon);
- View pre-alarm and post-alarm video;
- Search for stored video associated with an alarm;
- Adjust the speed and direction of video playback;
- Toggle between stored video and live video, for the camera;
- Capture an image of the current frame (the image is saved as a .jpg file to the clipboard);
- View stored video associated with an alarm on a Spot Monitor Viewer.

3. Bi-directional alarms interface

Command Centre to Milestone:

- When a user configured event/alarm is generated in Command Centre, a message is sent to the Milestone system to move a specified camera to a preset;

- When a user configured event/alarm is generated in Command Centre, a message is sent to the Milestone system to retrieve stored video.

Milestone to Command Centre:

- Motion detection, automatic number plate recognition, and diagnostic events generated by Milestone are forwarded to Command Centre.

4. Automatic Number Plate Recognition (ANPR) functionality

Licence plate numbers are sent from Milestone to Command Centre. The licence plate number is passed to Command Centre as a card number and facility code (via the FTCAPI). When a camera is assigned as the entry reader for a Door, the card number and facility code is used to identify the Cardholder at the Door.

1.3 Compatibility

This integration introduces the following Gallagher software:

- Gallagher Milestone VMS Integration v8.10.18
- Gallagher Milestone VMS Middleware v8.10.18

This integration supports the following Gallagher software:

- Gallagher FTCAPI Middleware Framework vMF7.80.005 (or later release)
- Gallagher Command Centre vEL7.80.856 (or later CC release)
- Gallagher Controller 6000 vGR7.80//b214 (or later release)
- Gallagher legacy Controllers vBT7.80//b233 (or later release)

Command Centre and this integration have been tested using the following:

- Command Centre Server: Windows Server 2016
- Command Centre Workstation: Windows 10 (64-bit)
- Database: SQL Server 2014 Service Pack 2 and later

This integration is compatible with Gallagher Command Centre vEL7.80.856 (or later vEL7.80) and later releases.

This integration has been tested in a Command Centre multi-server environment. Ensure the Command Centre workstation has a direct connection to the camera. The configuration of remote items is excluded. Some scenarios where remote items are on a different network will not work.

The ANPR functionality has been tested using the following licence plate types:

- Australian (QLD, NSW, and WA)
- Canadian (Ontario, Québec, and Brunswick)
- Taiwanese

1.3.1 Equipment tested

This integration has been tested using the following Milestone software:

- Milestone XProtect Management Client 2018 R1, Version 12.1a, Build 7115

- Milestone XProtect Management Client 2019 R1, Version 13.1a, Build 177

The Milestone SDK 2019 R1 supports a wide variety of cameras. To view the cameras supported by the SDK, refer to Milestone documentation. Gallagher has tested this integration using a small selection of cameras, hence Gallagher cannot guarantee the support for all cameras.

1.3.2 Setup recommendations

The date and time (time zone) used on all devices must be the same (i.e. the date and time on the Command Centre server, middleware PC, and Milestone devices must be the same). If the time zones are not synchronised, an operator may miss viewing an event associated with an alarm.

It is recommended that the Milestone server is set to continuous recording. Setting the recording to motion detect only, may result in the integration not working correctly.

1.3.3 Deployment architecture
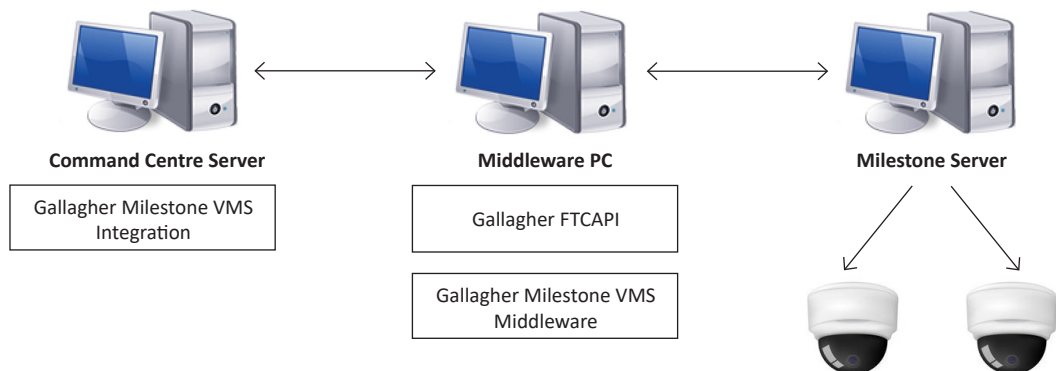
2 Installation

Note: If a previous version of this integration has been installed, you will need to upgrade to this version. Refer to the topic *"Upgrading"* later in this note.

To install this integration, perform the following procedure:

1. Perform a backup of your Command Centre system.

2. Ensure your licence file contains the following options:

   ```
   [Limits]
   DVR Cameras=X  (where X is the maximum number of cameras required)

   [Features]
   Milestone=1

   [Plugin]
   PluginX=Milestone  (where X is a decimal number)
   ```

3. Store the licence file in the following folder: C:\ProgramData\Gallagher\Command Centre

4. Exit Command Centre and stop the Command Centre Services.

5. On the Command Centre server and all Command Centre workstations install Command Centre vEL7.80.856 (or later release) from the Command Centre installation media, if not already installed.

6. Unzip the file you have been provided.

Install the Gallagher Milestone VMS Integration

Notes:

- You can install this integration on a Command Centre workstation that has been deployed via Click-Once.

- Installing this integration is required on those workstations that will be used to view videos. Otherwise, installing this integration on every workstation is *not* required.

7. On the Command Centre server and those Command Centre workstations that will be using this integration (i.e. Viewing video), run the installation executable **Gallagher Milestone VMS Integration Setup 8.10.xx.msi.**

Install the FTCAPI Middleware Framework

The middleware PC needs to have the FTCAPI Middleware Framework installed. Perform the following procedure on the middleware PC:

Notes:

- Depending on what version of Command Centre you are running, the FTCAPI Middleware Framework version may also change. Always install the FTCPAI Midddleware Framework that is provided with the Command Centre installation media. This will ensure that you the have correct version of FTCAPI for that particular version of Command Centre.

- Microsoft .NET Framework 4.5 is required on the middleware PC.

8. Copy the Command Centre licence file (**CommandCentre.lic**) to the following directory on the middleware PC: `C:\ProgramData\Gallagher\Command Centre`.

9. Run the executable **FMFSetup.msi** located in the '`Utilities\System Interfaces\`

`Middleware Framework vMFx.xx.xxx` folder on the Gallagher installation media.

The Gallagher FTCAPI Middleware Framework Setup Wizard displays.

10. Click the **Next** button on each wizard screen and then the **Finish** button on the final screen. The following are installed on the middleware PC:

- The Gallagher FTCAPI Middleware Framework.

- A new service named FTCAPI Router Service which starts automatically.
  This service needs to remain running to enable FTCAPI functionality.

Note: When installing the Gallagher FTCAPI you may receive the popup error *"Gallagher FTCAPI Middleware Framework. Error 1001. An exception occurred in the OnAfterInstall event handler of Cardax.FTCAPI.Framework.Service.ProjectInstaller. --> Failed to configure Windows Firewall."*

This error indicates that the *"Windows Firewall/Internet Connection Sharing (ICS)"* service is not running. To install the Gallagher FTCAPI, you can temporarily start this service, install the Gallagher FTCAPI, then the service can be turned off again, if not required.

11. Ensure the middleware PC's Firewall is configured to allow the FTCAPI to listen on port 1072.

Install the Gallagher Milestone VMS Middleware

12. On the middleware PC run the installation executable **Gallagher Milestone VMS Middleware Setup 8.10.xx.msi**

Note: If the Gallagher FTCAPI Middleware Framework has been installed on the same PC as the Command Centre server, ensure the FT Services have been stopped before running this installation executable.

13. Restart the Command Centre Services and Command Centre.

Verify the installation

14. To ensure this integration has installed correctly, select the **Programs and Features** utility from the Windows/Control Panel.

The following programs should be listed as currently installed on the Command Centre server and all workstations that will be using this integration:

- Gallagher Command Centre
- Gallagher Milestone VMS Integration

The following programs should be listed as currently installed on the middleware PC:

- Gallagher FTCAPI Middleware Framework
- Gallagher Milestone VMS Middleware

3   Milestone configuration

The following procedure describes how to configure a preset for a PTZ enabled camera within the Milestone system.

1. Open the Milestone application on the Milestone server.

2. Select **Cameras** from within the **Site Navigation** panel.

3. Select the PTZ enabled camera from the list of cameras.

4. Select the **Presets** tab located at the bottom of the **Properties** window for the camera.
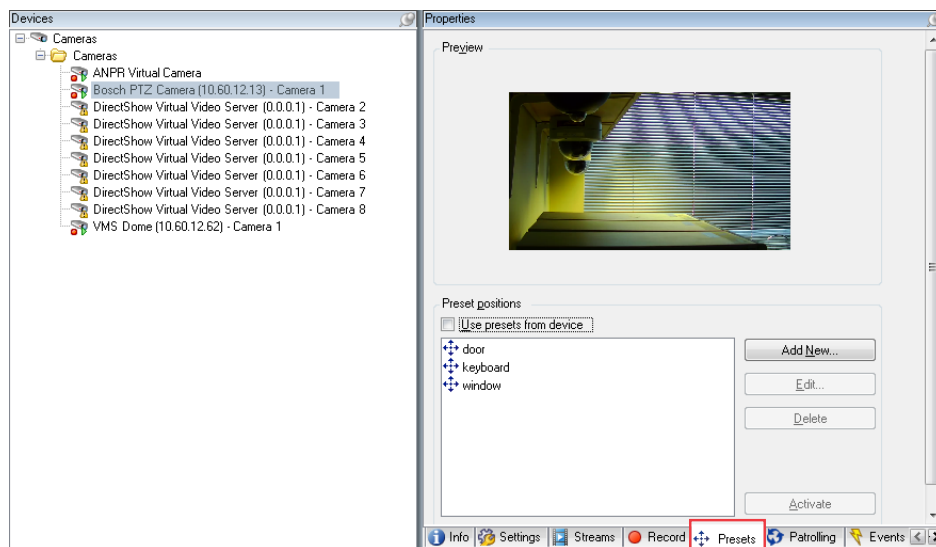
5. Click the **Add New...** button to create a new preset.
    The **Add Preset** window opens.
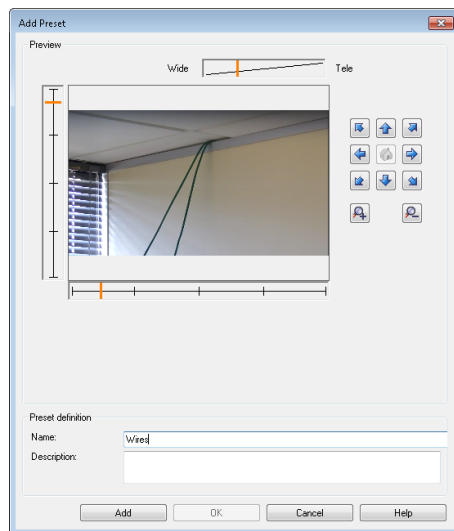
6. Move the camera to the require position.

7. Enter a name for the preset. This name will appear within the Command Centre VMS user interface **PTZ Presets** dialog box.

8. Click **Add**, then click **OK**.

9. Click the **Activate** button to trail the preset.

4   Command Centre operator privileges

The following Command Centre operator privileges are applicable for this integration:

Privilege	is required to...
Adjust DVR PTZ controls	alter the Pan, Tilt and Zoom of DVR cameras
Edit Site	create, edit and delete most Site Items
View Digital Camera	view the feed from a Digital Camera
View Events and Alarms	view Events and Alarms
View Site	view Site Items

Assign the appropriate privileges to the appropriate operators. For instructions on assigning operator privileges, refer to the topic *"Setting up Operator Groups"* in the Configuration Client Online Help.

Viewers

Ensure the appropriate Viewers are assigned to the appropriate operators. For example, an operator may wish to view video from an Alarm Viewer, Monitor Site Viewer, and Spot Monitor Viewer.

Within the Viewer Configuration, select the **Assign to Operators** button (located near the Viewer name) and select the appropriate Operator Groups to assign the Viewer to.

Reports

Ensure the appropriate Reports are assigned to the appropriate operators. For example, an operator may wish to run an Activity report to view the occurrence date and time for specific events. The operator can then search for the stored video associated with an event, by entering the occurrence date and time into the VMS user interface.

Within the Report Configuration, select the **Assign to Operators** button (located near the report name) and select the appropriate Operator Groups to assign the report to.
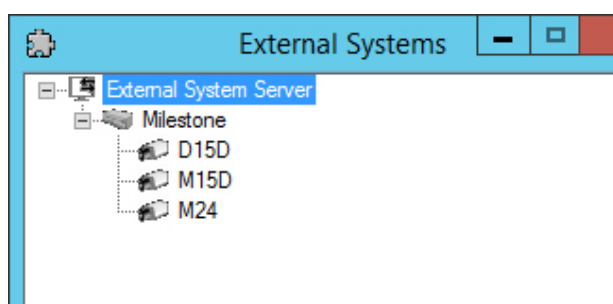
5 Command Centre configuration

To configure this integration, perform the following procedures on the Command Centre server:

5.1 Configuring an External System server (only vEL7.80 or later)

To configure an External System server, refer to the "Configuring an External System Server" topic in the Command Centre vEL.7.80.xxx Configuration Client help file.


5.2 Configuring a Milestone DVR System

1.   In Command Centre, open the External Systems master list window.

2.   Right-click and select **New...DVR System**.

3.   Type in the Name and Description, and select the Division.

4.   Click the **Event Response** tab and assign a primary Alarm Zone for all events.

5.   Click the **API Setup** tab.

6.   Select the appropriate **Controller** from the drop-down list.

7.   Select the appropriate External System server from the **Server** drop-down list.
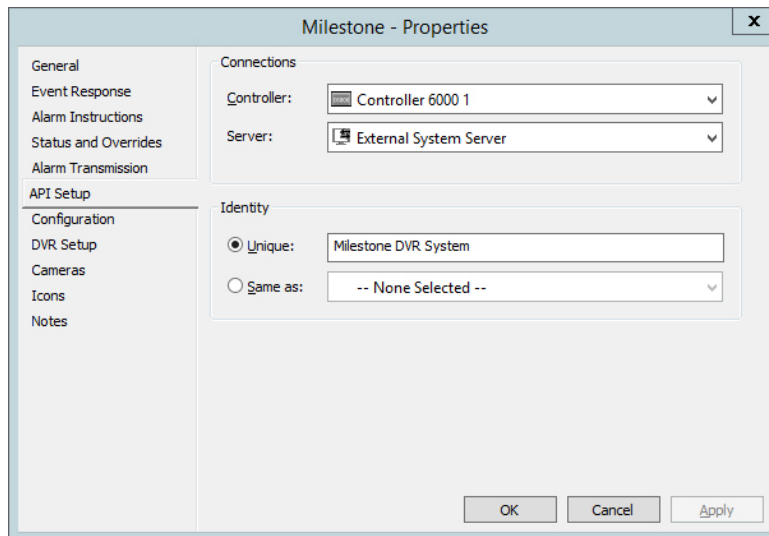
Note: The above screen shot is from a vEL7.80 configuration.

8.   Click the **Unique** radio button in the 'Identity' section, and enter a unique identity string (e.g. Milestone DVR System). Maximum 64 characters.

9.   Click the **Configuration** tab.
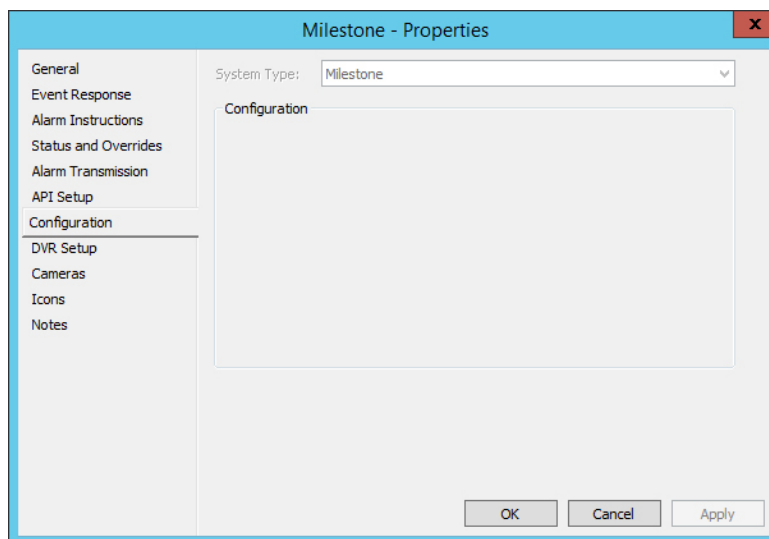
10.   From the **System Type** drop-down list, select **Milestone** (the middleware plug-in to be used).

11.   Click the **DVR Setup** tab.
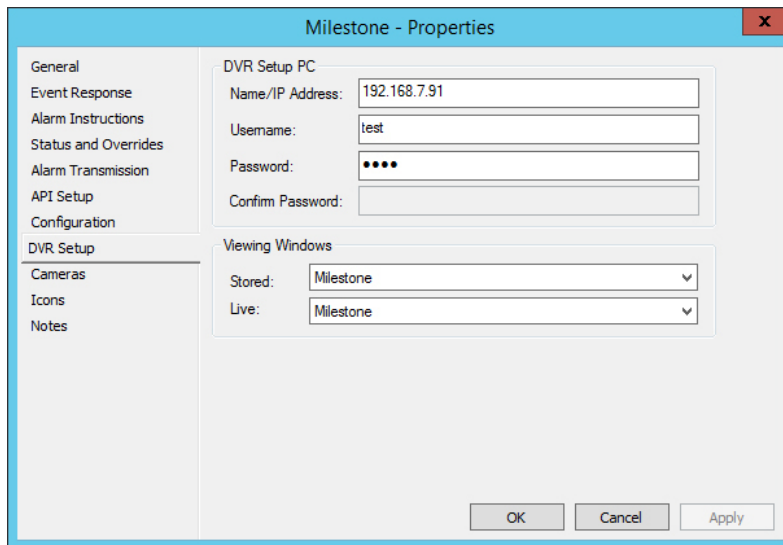
12. Enter the **IP Address** of the Milestone server.

13. Enter the **Username** and **Password** of a Milestone administrator account configured on the Milestone server that uses basic authentication (not Windows authentication) to log on to the Milestone server.

14. From the drop-down lists in the 'Viewing Windows' section, select the following:

    Stored: **Milestone**
    Live: **Milestone**

    Note: By installing this integration, these selections became available in the 'Viewing Windows' drop-down lists.

15. Click **OK** to exit and save your changes.

## 5.4 Configuring the Milestone server dummy camera

You will need to configure a dummy DVR Camera to log events that do not map to any configured camera (i.e. events from the Milestone server).

1. In Command Centre, open the External Systems master list window.

2. Right-click and select **New... DVR Camera**.

3. Type in the Name and Description, and select the Division.

4. Click the **Event Response** tab and assign a primary Alarm Zone for all events.

5. Click the **Setup** tab.
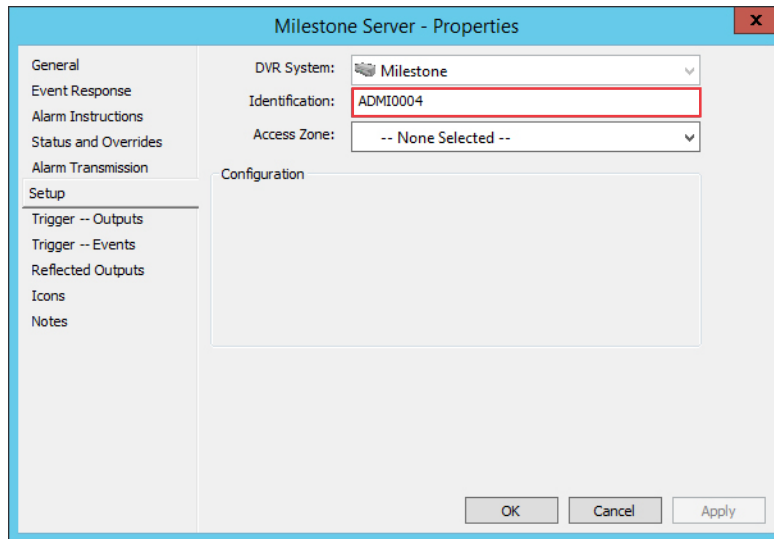
6. Select the previously configured **DVR System** from the drop-down list.

7. Enter the name of the Milestone server (excluding the version number) into the **Identification** field. This will enable the logging of Milestone events from the Milestone server.

   **Note:** This field is case sensitive.
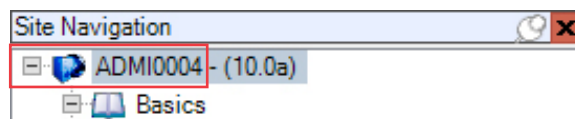
8. Click the **Icons** tab.

   If you wish to change the icon set in order to differentiate the dummy camera from real cameras, create a new icon set for the DVR Camera item type. Refer to the topic *"Creating a new Icon Set"* in the Command Centre Configuration Client Online Help. Once created, assign the new icon set to the dummy camera.

9. Click **OK** to exit and save your changes.

5.5 Configuring a Milestone camera

1. In Command Centre, open the External Systems master list window.

2. Right-click and select **New... DVR Camera**.

3. Type in the Name and Description, and select the Division.

4. Click the **Event Response** tab and assign a primary Alarm Zone for all events.

5. Click the **Setup** tab.
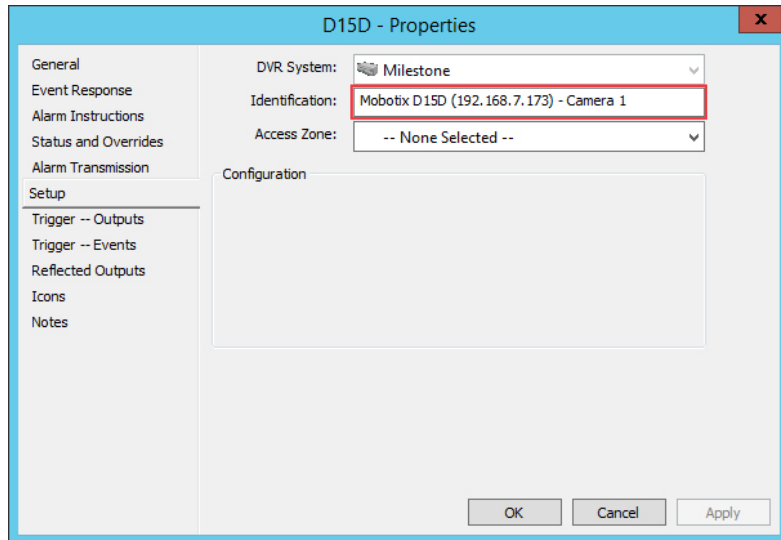
6. Select the previously configured Milestone DVR System the camera is connected to from the **DVR System** drop-down list.

7. Enter the camera name as shown in Milestone into the **Identification** field. Maximum 64 characters. To locate the camera name within the Milestone, select **Cameras** from within the **Site Navigation** panel.
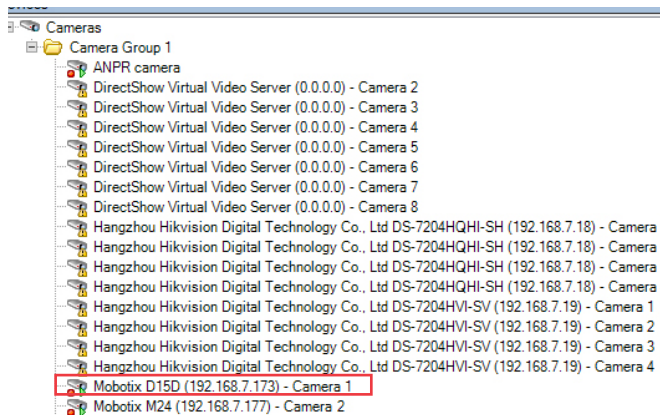
Note: The camera name is checked for uniqueness within the same DVR System. The camera name does not have to be unique across the entire set of cameras, as cameras belonging to different DVR Systems may share the same name, but the **Identification** field cannot be left blank.

8. Click **OK** to exit and save your changes.

6 Command Centre event configuration

The Milestone middleware plugin installs with a default configuration that maps Milestone events to specific Command Centre External Event Groups.

6.1 Event mappings

The default event mapping should be appropriate for many installations. However, if the default configuration needs to be customised to meet specific client requirements you should follow the procedures in the following section.

Although it is possible to change the default Action Plan for External Event Groups via Server Properties or at an individual camera level, it may be desirable to alter the behaviour of the event handling for the Milestone integration (e.g. on sites which have different types of External Systems where it is not practical to change Server Properties or define them individually for each camera).

The events definitions are stored in the file **MilestoneEventMappings.xml** located in the directory C:\Program Files(x86)\Gallagher\FTCAPI\Middleware Framework\Plugin. This file enables you to enter the Milestone major and minor event log type (as defined in the Milestone system), and then the Command Centre External Event Group, you wish to map to.

Regular Expression

The `'\d+'` and other expressions can be applied to `'MilestoneEventTypeMinor'`, `'MilestoneEventTypeMajor'` and `'MilestoneRestoralEventTypeMinor'` parameters to identify strings of text of particular interest, such as words, characters, or patterns of characters. The `'\d+'` expression searches for events that have string values followed by 1 or more digits.

For example:

```
MilestoneEventTypeMajor="System Event"
MilestoneEventTypeMinor="Motion Detected \d+"
EventTypeMinorIsRegex="true"
EventMessage="Motion detected on camera '%1'"
CommandCentreEventNum="4"
```

The above example will capture Milestone minor events such as: "Motion Detected 1", "Motion Detected 12", "Motion Detected 777" and so on.

Note: The event mappings file will *be* overridden upon upgrade or reinstallation of the integration.

6.2 ANPR mappings

You will need to configure the ANPR mappings. The following ANPR mapping example has been provided in the **MilestoneEventMappings.xml** file

```
<ANPRMappings>
   <ANPRMapping
     MilestoneEventType="LPR Event"
     ANPRMatchList="Employee Cars"
     BadgeAsCard="true"
     LogANPREvent="true"
     CardFacilityCode="A00005"
     EventMessage="License plate '%platenumber%' detected at camera
'%1'"
     CommandCentreEventNum="1" />
</ANPRMappings>
```

Parameter	Description
MilestoneEventType	Where `LPR Event` is a Milestone ANPR event.
ANPRMatchList	Enter the name of a Licence plate match list as shown in Milestone. **Note:** If the name is changed in Milestone this configuration file will need to be updated to match.
BadgeAsCard	Where `true` will log a card badge event in Command Centre. Enter `false` to not log a card badge event.
LogANPREvent	Where `true` will log an ANPR event in Command Centre. Enter `false` to not log an ANPR event.
CardFacilityCode	Enter the facility code for the Card Type assigned to Cardholders in Command Centre. The facility code and licence plate number will be used to identify the Cardholder in Command Centre.
EventMessage	Customise the event message if required where `%platenumber%` is the licence plate number and `%1` is the camera name.
CommandCentreEventNum	The External Event Group that this event will be mapped to in Command Centre.

6.3 Mapping plate numbers from multiple match lists

If you wish to map plate numbers from multiple Milestone licence plate match lists, repeat the mapping (as shown in the example below), but enter the new Licence plate match list name.

In addition, this functionality enables you to map licence plate numbers in a different Milestone licence plate match list to a different Command Centre External Event Group.

```
<ANPRMappings>
   <ANPRMapping
     MilestoneEventType="LPR Event"
     ANPRMatchList="Employee Cars"
     BadgeAsCard="true"
     LogANPREvent="true"
     CardFacilityCode="A00005"
     EventMessage="License plate '%platenumber%' detected at camera
'%1'"
     CommandCentreEventNum="1" />
   <ANPRMapping
     MilestoneEventType="LPR Event"
     ANPRMatchList="VIP Cars"
     BadgeAsCard="true"
     LogANPREvent="true"
     CardFacilityCode="A00005"
     EventMessage="License plate '%platenumber%' detected at camera
'%1'"
     CommandCentreEventNum="2" />
</ANPRMappings>
```

6.4 Configuring Event handling in Command Centre

If you want to handle an event that falls within a particular External Event Group you can change the Action Plan to be carried out by changing the Event Response of the specific camera (e.g. you may want to raise a High Priority alarm if motion is detected in certain key areas).

A custom Action Plan can also be created and assigned to an individual camera if required by following the steps in the "*Configuring an Action Plan*" procedure later in this document.

For example, by default motion events are placed in External Event Group 4 which generates a Medium-Low Priority alarm. This can be changed to "Generate High Priority alarm" or "Log an Event" by performing the following steps:

1. In Command Centre, open the External Systems master list window.

2. Right-click on the camera which you want to change and select **Properties**.

3. Click the **Event Response** tab.

4. Click the External Event Group you want to change, and select the desired Action Plan from the drop-down list.
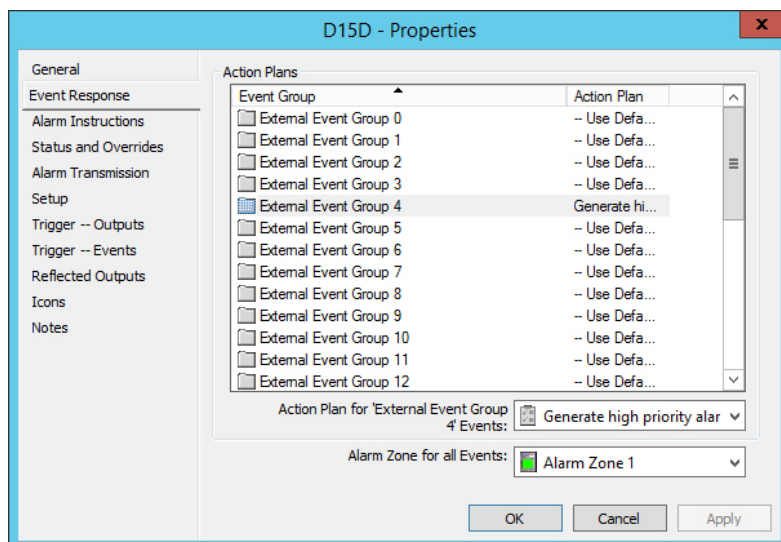
5. Repeat Step 4 for any other events you want to modify the Action Plan for.

6. Click **OK** to exit and save your changes.

7 Configuring DVR commands

If a user configured event/alarm is generated in Command Centre the Milestone server can be configured to respond (e.g. by moving a camera to a preset).

In order for the Milestone server to respond, you will need to configure a DVR command (Output) and assigned the DVR command to a camera. You will then need to configure an Action Plan (assign the DVR command to the Action Plan) and assign the Action Plan to a camera in order for the camera to respond when an event/alarm is generated.
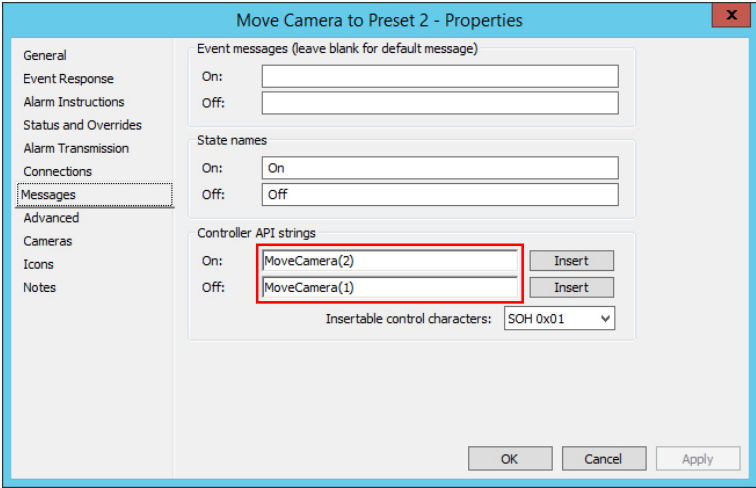
To configure a DVR command, perform the following procedures:

7.1   Configuring a DVR command
7.2   Assigning a DVR command
7.3   Configuring an Action Plan
7.4   Assigning the Action Plan

7.1 Configuring a DVR command

A DVR command is created using a virtual Output. You will need to configure a virtual Output for each DVR command you wish to issue.

1.   In Command Centre, open the Hardware master list window.

2.   Right-click and select **New...Output**.

3.   Type in the Name and Description, and select the Division.

4.   Click the **Event Response** tab and assign a primary Alarm Zone for all events. Use the primary Alarm Zone assigned to the Controller, that this virtual Output will be assigned to.

5.   Click the **Messages** tab.

6.   Enter a DVR command (API string) into the **Controller API strings** fields.

- The API string used to move a PTZ camera to a preset is:
  MoveCamera(preset number)
  Where the preset number (e.g. 1) shown in the API string is the preset defined against the camera within the Milestone server.

7. Click **OK** to exit and save your changes.

8. Assign the virtual Output to the **Virtual Outputs** tab of a Controller.

7.2 Assigning a DVR command

You will need to assign the DVR command to a camera in order for the camera to respond when a user configured alarm occurs.

Notes:

- You can assign more than one DVR command to a camera (e.g. in order to move the camera to multiple presets).

- You will need to assign the DVR command to all cameras you wish to control.

1. In Command Centre, open the External Systems master list window.

2. Right-click on the required PTZ camera and select **Properties**.

3. Click the **Trigger--Outputs** tab.
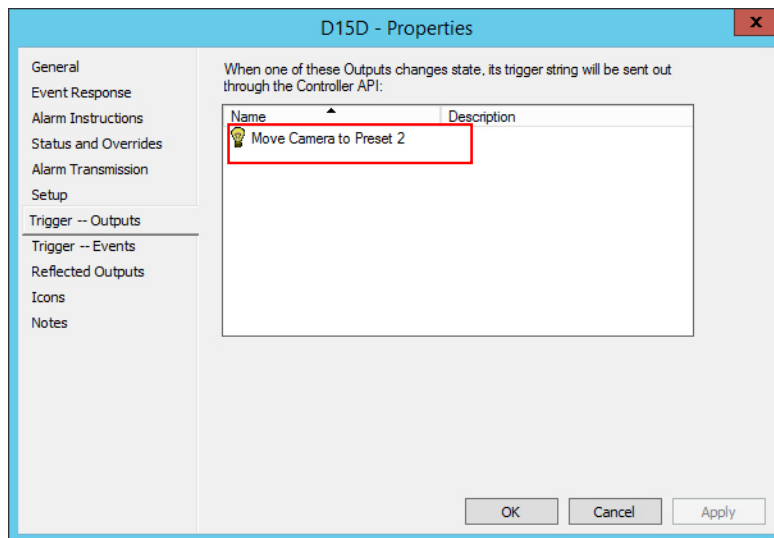
4. Drag and drop the virtual Output (DVR command) that you require to activate into the **Output** grid

5. Click **OK** to exit and save your changes.

7.3 Configuring an Action Plan

You will need to configure an Action Plan and assign the Action Plan to a camera in order to generate a specific event/alarm in Command Centre when a camera event occurs (e.g. motion detection or camera offline).

1.   In Command Centre, open the Action Plan master list window.

2.   Right-click and select **New...Action Plan**.

3.   Type in the Name and Description, and select the Division.

4.   Click the **Armed** tab. These settings define the responses when the item is linked with the Armed Alarm Zone.
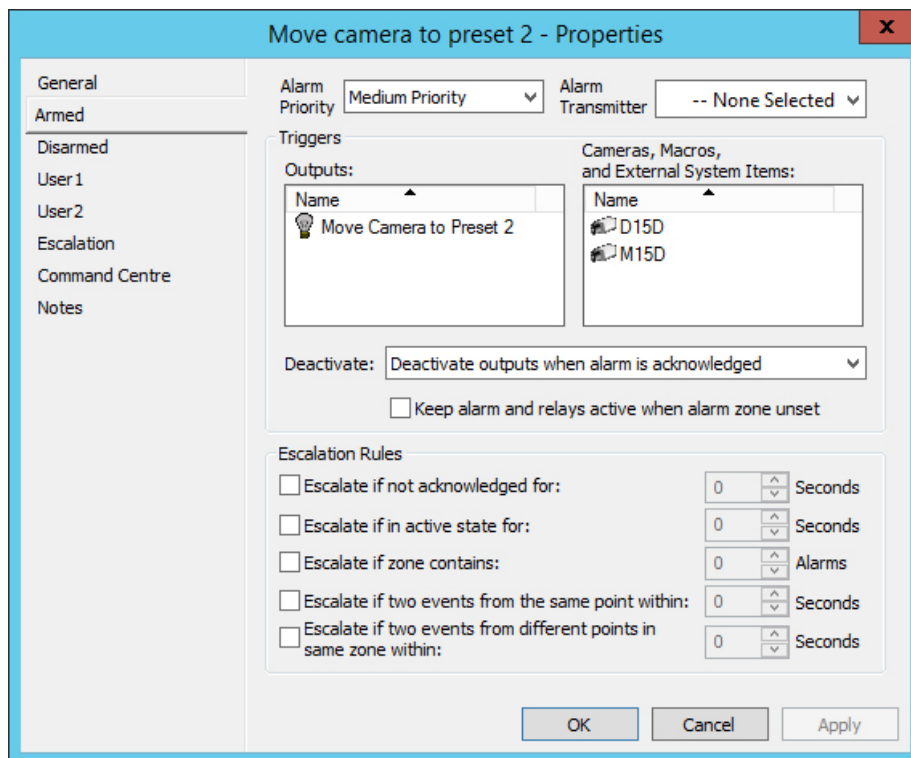
5.   Specify the priority of events or alarms generated, from the **Alarm Priority** drop-down list.

   Note: If the Alarm Priority is set to 'Not an Event' or 'Message only' the virtual Output won't be activated.

6.   Drag and drop the virtual Output that is required to activate into the **Output** grid. This virtual Output will move the camera it has been assigned to when triggered.

7.   If required, drag and drop a camera (any camera) to display footage associated with alarm if this Action Plan causes an alarm to be generated, into the **Cameras, Macros, and External System Items** grid.

8.   Click the **Disarmed** tab, and repeat Steps 5–7. These settings define the responses when the item is linked with the Disarmed Alarm Zone.

9.   Configure the settings on each of the remaining tabs as appropriate. For the full procedure refer to the *"Creating a new Action Plan"* topic in the Command Centre Configuration Client Online Help.

10.   Repeat this procedure for each camera that you want to configure a specific event/alarm for.

7.4   Assigning the Action Plan

1.   In Command Centre, open the External Systems master list window.

2.   Right-click on the required camera and select **Properties**.

3.   Click the **Event Response** tab.

4.   Highlight the appropriate External Event Group. Refer to the **MilestoneEventMappings. xml** file (mentioned earlier in this document) for a definition of which Milestone events map to which Command Centre External Event Groups.
The Action Plan edit box is then enabled.

5.   Click the drop-down menu box and select the appropriate Action Plan for the selected External Event Group.

6.   Repeat Steps 4 and 5 for each External Event Group.
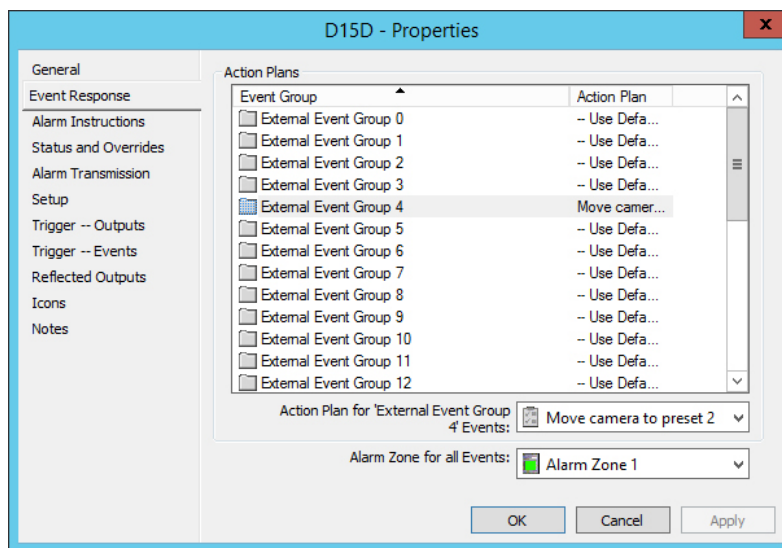
7.   Click **OK** to exit and save your changes.

8 Configuring the ANPR functionality

To configure the ANPR functionality, perform the following procedures:

8.1 Creating a 'Text' Card Type
8.2 Assigning the 'Text' Card Type and Cardholder's licence plate number
8.3 Assigning the camera as a Reader for a Door

8.1 Creating a 'Text' Card Type

Create a 'Text' Card Type in Command Centre. Select **Text** from the **Format** drop-down list on the **Setup** tab in the Card Type's properties. Ensure the Facility Code matches the Facility Code in the **MilestoneEventMappings.xml** file.

8.2 Assigning the 'Text' Card Type and Cardholder's licence plate number

Open the properties for a Cardholder. Add the previously created 'Text' Card Type to the Cardholder. Enter the Cardholder's licence plate number as the card number. Repeat this procedure for each Cardholder that requires the ANPR functionality.

Notes:

- The licence plate number entered must match a licence plate number in Milestone (i.e. listed on a Milestone licence plate match list which is referenced in the **MilestoneEventMappings.xml** file).

- The Card **Number** field is case sensitive.
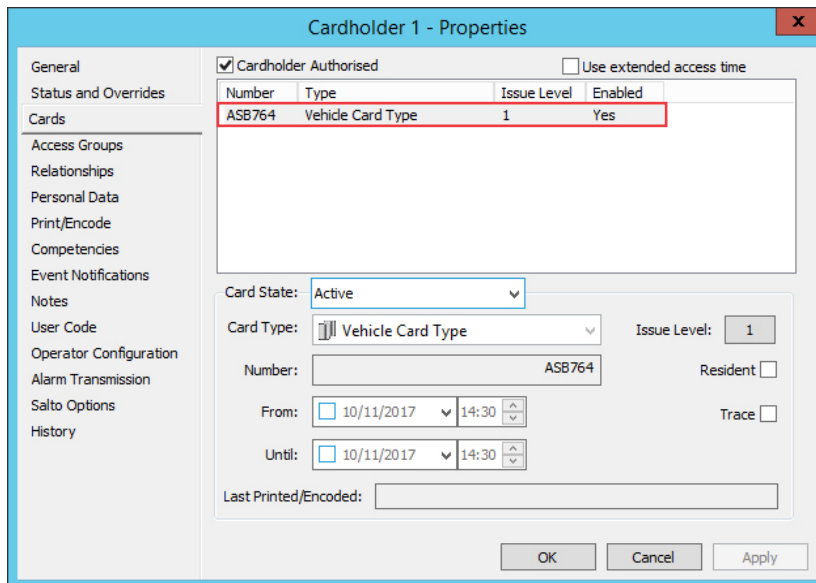
8.3 Assigning a camera as the Reader for a Door

Assign a camera as the Reader for a Door. Ensure the **Reader(s)** radio button is selected, then select the appropriate camera from the **Reader(s)** drop-down list.

A licence plate number recognised at this camera, that matches a card number in Command Centre will be treated as a card event. If the Cardholder's Access Group provides access to the entry zone, the Cardholder will be granted access at this Door.

Notes:

- If you wish to use dual authorisation (i.e. both number plate recognition and an access card) select a reader from the second **Reader(s)** drop-down list. Ensure this access zone has been configured for dual authorisation (i.e. the 'Text' Card Type and another Card Type - to be presented at the Reader).

- A PIN cannot be entered when a camera is assigned as the Reader for a Door.
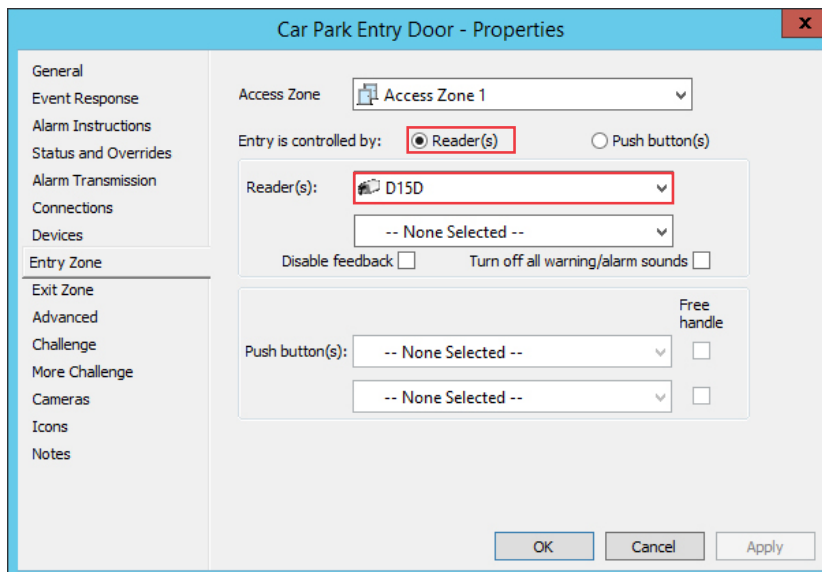
9 Viewing video

9.1 Live video viewing

A Camera tile in the Command Centre Client can be configured to display live feed from a camera. Refer to the topics *"Adding Tiles to Panels"* and *"Configuring a Camera Tile"* in the Command Centre Client Online Help.

To view live video in Command Centre:

1. From the Command Centre Client toolbar, select the **Viewer** that has been configured with a Camera tile. The Camera tile displays.


Note: The blue status bar shown is a property of the Milestone system. The camera name is shown to the left. The green square indicates that the video stream is live. The red square indicates that the video stream is being recorded.

9.2 Stored video viewing

When alarms occur that have associated stored video. These alarms can be recognised in the Alarm Viewer Navigation Panel by the Film Strip icon to the left of the alarm message.

Note: Operators require the "View Digital Camera" and "View Events and Alarms" operator privileges to perform this procedure.

1. From the Command Centre Client toolbar, select the **Alarm Viewer.**

2. Select the appropriate alarm that has the Film Strip icon to the left of the alarm message.

3. If a Camera tile has been configured for the Event Group associated with the alarm, the Camera tile displays.

4. If multiple cameras have been configured for the Action Plan associated with the alarm Event Group, select the appropriate camera tab.
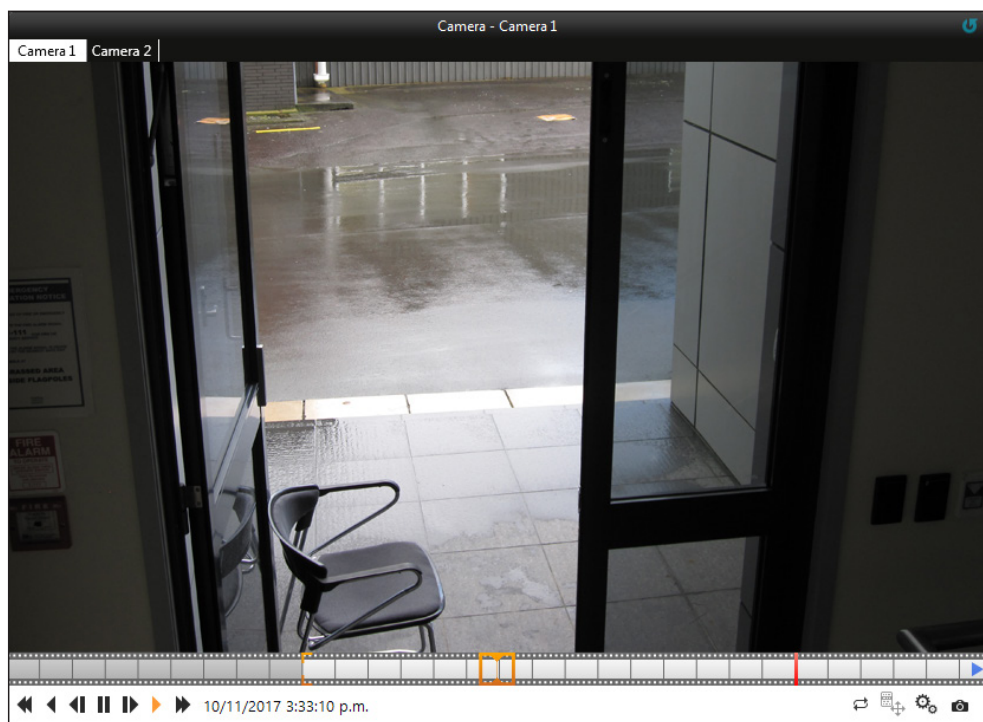
# 10   VMS user interface functionality

The Command Centre VMS user interface appears within the camera tile. This chapter describes the functionality of the VMS user interface.

Refer to the appropriate topic:

10.1   Using the trackbar

The trackbar represents the video being played. The current time is represented by an indicator rectangle that sits within the centre of the trackbar. The trackbar filmstrip moves either forward or backward depending on the direction and speed that the video is being played at.
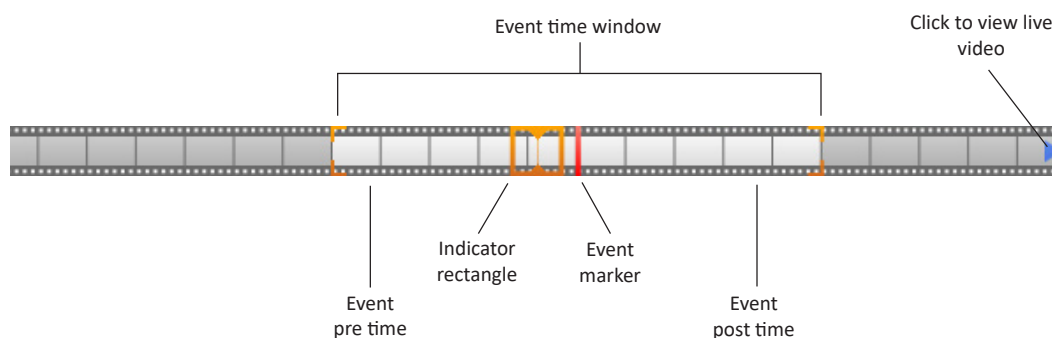
An operator can drag the indicator rectangle forward and backward to view video at a specific time. When you click and drag the indicator rectangle, the orange marker will remain at the point you are currently viewing until you release the mouse button.

The time within the event pre and post time is shown in white, the time outside this is in light grey, and the time beyond the current live time is shown in dark grey.

An event marker (red marker) indicates the location of the event. When off-screen an event arrow (red arrow) indicates the direction of the event marker. Hovering over either the event arrow or the event marker displays the event date and time. Clicking the event arrow will jump playback to the event pre-time.

To view the live video, an operator can either drag the indicator rectangle forward until they 'hit' live time or they can click the live arrow (blue arrow) which displays when live video is off-screen and when the forward event arrow is not visible.

10.2 Using the playback speed and direction controls

The following table describes the functionality of the playback speed and direction controls.

| Button	Mode	Description
◀◀	Fast backward	Click to play fast backward at a speed of x2, x4, x8, x16, x32, and x64. If the button is clicked again, the play backward speed will return to normal.
◀	Play backward	Click to play backward at normal speed.
◀‖	Step backward	When clicked the video will pause and the video steps backward one frame per click. When held for more than a second, the video begins playing backward at a slower than normal playback speed.
‖	Pause	Click to pause video playback.
‖▶	Step forward	When clicked the video will pause and the video steps forward one frame per click. When held for more than a second, the video begins playing forward at a slower than normal playback speed.
▶	Play	Click to play forward at normal speed.
▶▶	Fast forward	Click to play fast forward at a speed of x2, x4, x8, x16, x32, and x64. If the button is clicked again, the play forward speed will return to normal.

10.3 Changing the event playback mode

The event playback mode button is only visible when an event is present. Clicking this button toggles between the following modes:

Button	Mode	Description
→‖	Pause	When video playback reaches the end of the event playback window, the video will pause. This also functions in reverse (i.e. when playing backwards, the video will pause when the start of the event window has been reached).
⇄	Loop	When video playback reaches the end of the event playback window, the video will begin playing from the start of the event window. This also functions in reverse (i.e. when playing backwards, the video will begin playing from the end of the event window when the start of the event window is reached).
→	Continue	When the end of the event playback window is reached, video playback will continue as normal. This also functions in reverse (i.e. when playing backwards and the start of the event playback window is reached, the video will continue to play backwards).

10.4 Playing video from a specific date and time

To play stored video from a specific date and time, perform the following procedure:

1. Click the date and time label.
    The 'Play From Time' pop-up displays.

    Note: This label displays the date and time for the current frame.
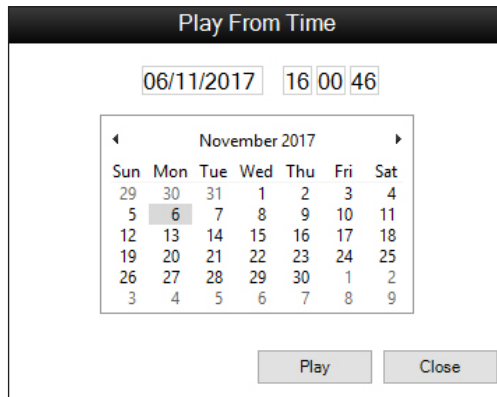
2. Click within the date field and enter a date. Alternatively, select a date from the date picker.

3. Click within the time field and enter a time. Alternatively, select a time from the time control.
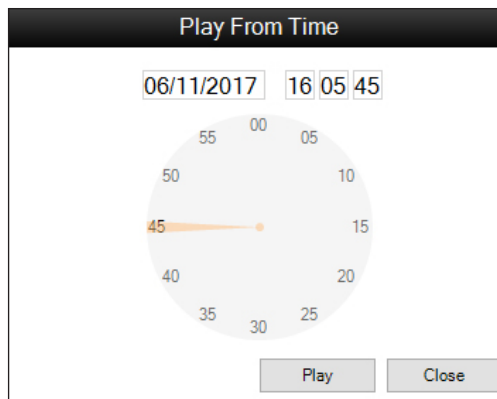
4. Click the **Play** button.
    The video for the date and time selected displays.

    Note: Selecting a future date or time will return you to the current live video.

10.5 Selecting a PTZ preset

The PTZ presents button displays when viewing live video only. This button displays if the camera is PTZ enabled. An operator requires the "Adjust DVR PTZ controls" operator privilege to select a PTZ preset.

To select a PTZ preset, perform the following procedure:

1.   Click the ⊞⊕ button.
     The PTZ Presets pop-up displays.

This window displays the presets available for the camera. However, not all presets will be configured within Milestone. If a preset is selected that hasn't been configured, the camera will not move.

2.   Select the required preset.

3.   Click the **Go to** button.

10.6 Controlling a PTZ camera
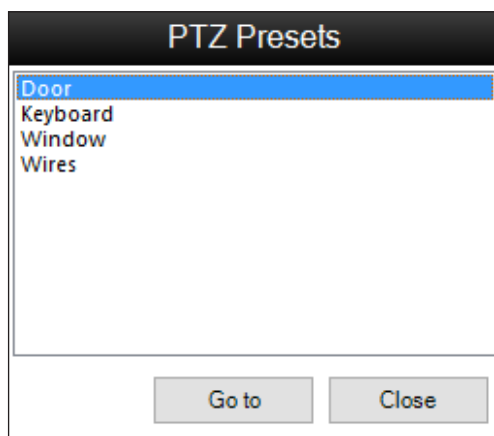
An operator requires the "Adjust DVR PTZ controls" operator privilege to control a PTZ camera.
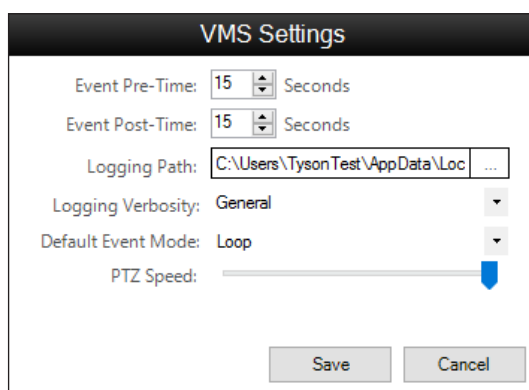
Control	Function
On-screen pan/tilt	For a PTZ enabled camera, hover the cursor over the video. The cursor will change to a directional arrow showing the PTZ direction that will take effect once the left mouse button is clicked. The direction is calculated based on the position of the directional arrow from the centre of the video control.
Mouse-wheel zoom	Use the mouse wheel to zoom in and out.
Keyboard PTZ	Use the keyboard arrow keys to pan/tilt. Use the keyboard **+** and **-** keys to zoom in and out respectively.

10.7 Editing the VMS settings

To edit the VMS settings, perform the following procedure:

Note: VMS settings are applied to all camera tiles configured for the workstation.

1. Click the ⚙ button.
   The 'VMS Settings' pop-up displays.

2. Edit the VMS settings as required.

Option	Description
Event Pre-Time	When viewing stored video associated with an alarm, this is the period of time that will be displayed prior to the event occurrence time. This option defines the start point for the event time window. Default 15 seconds. Range 0–300 seconds.
Event Post-Time	When viewing stored video associated with an alarm, this is the period of time that will be displayed post the event occurrence time. This option defines the end point for the event time window. Default 15 seconds. Range 0–300 seconds.
Logging Path	Defines the location of the log files MilestoneCCVMSLog.log and gglMilestoneProxy.log
Logging Verbosity	Defines the level of logging. • General: Low level logging. • Debug: Medium level logging. • Trace: High level logging. Set the logging verbosity to trace when supplying the log file to Gallagher Technical Support.
Default Event Mode	Defines the event playback mode. • Pause: Video will pause when playback reaches the end of the event time window. • Loop: Video will loop when playback reaches the end of the event time window. • Continue: Video will continue when playback reaches the end of the event time window.
PTZ Speed	Defines the pan, tilt and zoom speeds for PTZ enabled cameras.

3. Click the **Save** button.

4. Refresh the Viewer in order for the changes to take effect.

10.8 Capturing an image

Click the 📷 button to capture an image of the current frame.
The image is saved as a .jpg file to the clipboard.

10.9 Using keyboard hotkeys

The VMS user interface is usable from the keyboard.

When **Ctrl** is pressed (and no pop-up is open), the interface hotkeys appear.
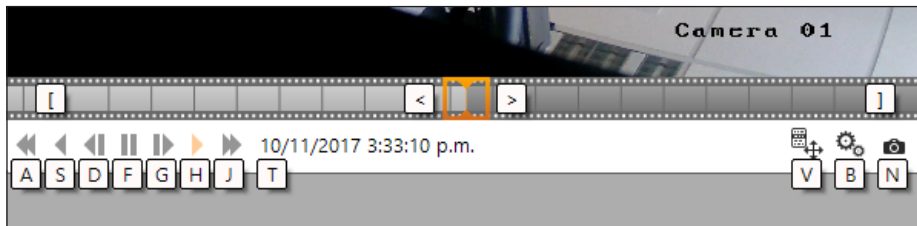
Note: The hotkeys will not work if the camera tile is configured to not show camera controls or if the tile is minimised so that camera controls are not visible.

The following table lists the available hotkeys:

Hotkeys	Function
F5	Refresh the camera tile
CTRL – A	Fast backward
CTRL – S	Play backward
CTRL – D	Step backward
CTRL – F	Pause
CTRL – G	Step forward
CTRL – H	Play
CTRL – J	Fast forward
CTRL – T	Open the 'Play From Time' pop-up
CTRL – C	Toggle event playback mode
CTRL – V	Open the 'PTZ Presets' pop-up
CTRL – B	Open the 'VMS Settings' pop-up
CTRL – N	Capture image
CTRL – [	Click left trackbar arrow (if available)
CTRL –]	Click right trackbar arrow (if available)
CTRL – <	Press and hold to move trackbar playback left
CTRL – >	Press and hold to move trackbar playback right

11   Upgrading

11.1 Upgrading this integration from vEL7.80 to vEL7.90 or later

1. Perform a backup of your Command Centre system.

2. Back up the **MilestoneEventMappings.xml** file.

   Note: The event mappings file will *be* overridden upon upgrade or reinstallation of the integration.

3. Exit Command Centre and stop the Command Centre Services.

4. Using the Windows **Programs and Features** utility, remove the program 'Gallagher Milestone VMS Integration' from the Command Centre server and all Command Centre workstations.

5. Using the Windows **Programs and Features** utility, remove the following programs from the middleware PC:
   - Gallagher FTCAPI Middleware Framework
   - Gallagher Milestone VMS Middleware

6. Upgrade Command Centre to vEL7.90.915 (or later release). Refer to the document *"3E0068 Release Note Gallagher Command Centre vEL7.90.915 (Upgrade Procedures).pdf"* located on the Gallagher installation media.

7. Unzip the new folder you have been provided and run the installation executable **Gallagher Milestone VMS Integration Setup 8.10.xx.msi** on the Command Centre server and those Command Centre workstations that will be using this integration (i.e. Viewing video).

   Notes:

   - You can install this integration on a Command Centre workstation that has been deployed via Click-Once.

   - Installing this integration is required on those workstations that will be used to view videos. Otherwise, installing this integration on every workstation is *not* required.

8. Install the Gallagher FTCAPI Middleware Framework vMF7.80.xxx (or later) on the middleware PC. Refer to the middleware framework installation instructions earlier in this note.

9. From the folder you have been provided run the installation executable **Gallagher Milestone VMS Middleware Setup 8.10.xx.msi** on the middleware PC.

10. Restart the FT Services and Command Centre.

11. To ensure this integration has installed correctly, select the **Programs and Features** utility from the Windows/Control Panel.

    The following programs should be listed as currently installed on the Command Centre server and all workstations that will be using this integration:
    - Gallagher Command Centre
    - Gallagher Milestone VMS Integration

    The following programs should be listed as currently installed on the middleware PC:
    - Gallagher FTCAPI Middleware Framework
    - Gallagher Milestone VMS Middleware

11.2 Upgrading this integration on vEL8.10 or later

1. Perform a backup of your Command Centre system.

2. Back up the **MilestoneEventMappings.xml** file.

   Note: The event mappings file will *be* overridden upon upgrade or reinstallation of the integration.

3. Exit Command Centre and stop the Command Centre Services.

4. Using the Windows **Programs and Features** utility, remove the program 'Gallagher Milestone VMS Integration' from the Command Centre server and all Command Centre workstations.

5. Using the Windows **Programs and Features** utility, remove the program 'Gallagher Milestone VMS Middleware' from the middleware PC.

6. Unzip the new folder you have been provided and run the installation executable **Gallagher Milestone VMS Integration Setup 8.10.xx.msi** on the Command Centre server and all Command Centre workstations that will be using this integration.

   Notes:

   - You can install this integration on a Command Centre workstation that has been deployed via Click-Once.

   - Installing this integration is required on those workstations that will be used to view videos. Otherwise, installing this integration on every workstation is *not* required.

7. From the folder you have been provided run the installation executable **Gallagher Milestone VMS Middleware Setup 8.10.xx.msi** on the middleware PC.

8. Restart the Command Centre Services and Command Centre.

12   Uninstallation

To permanently uninstall this integration, perform the following procedure:

1. Perform a backup of your Command Centre system.

2. Delete all Command Centre items configured for this integration.

3. Exit Command Centre and stop the Command Centre Services.

4. Using the Windows **Programs and Features** utility, remove the program 'Gallagher Milestone VMS Integration' from the Command Centre server and all Command Centre workstations.

5. Using the Windows **Programs and Features** utility, remove the following programs from the middleware PC:

   • Gallagher Milestone VMS Middleware

   • Gallagher FTCAPI Middleware Framework (if not used elsewhere)

6. Restart the Command Centre Services and Command Centre.

13   Enable FMF logging

To enable debug logging:

1.   On the middlware PC, open the **FTCAPIRouterService.exe.config** file located in the 'C:\Program Files\CARDAX\FTCAPI\Middleware Framework' directory.

   Note: Due to rebranding and depending on what version you are upgrading from the location may be 'C:\Program Files\Gallagher\FTCAPI\Middleware Framework'. Likewise, wherever else the "CARDAX" folder is mentioned in this document, it could be "Gallagher".

2.   Locate the line with **"<!--<add name="Debug" />-->"**

3.   Remove the "<!--" characters from the beginning of the line and the "-->" characters from the end of the line.

4.   Save the **.config** file.

5.   Restart the 'FTCAPI Router Service'.

14   Error messages

The following describes the error messages that may display within the Camera tile.

Message	Description
Viewer is currently not licenced	You are not licenced for this integration.
Failed to connect to Milestone	Milestone has been disconnected from the Command Centre server.
Connection to device has been lost. Attempting reconnection...	Most likely the camera has been disconnected from the network or the Milestone server is offline.
Command initialize failed to execute successfully	The camera you have assigned to the Camera tile may not exist. Check the camera name is correct and that the DVR setup is correct, or try refreshing the Camera tile.
No live viewer control was assigned to the camera in the Command Centre Configuration Client	Navigate to the Command Centre DVR System item and add the Milestone stored and live options.
Camera name invalid	The camera name is invalid or cannot be found in Milestone.
No video footage found at specified time	No stored video can be found.
Connecting to [VMS Server Name]. This may take a few minutes...	A connection to the OnSSI server is being established.

15   Known issues

- If the indicator rectangle located on the trackbar is dragged backward in fast backward/play backward mode, the stored video will pause. Click a play button to continue playback.

- DVR Cameras (within the External System master list window) don't show as offline when the External System (parent Milestone DVR System) is offline.

- When a Camera tile or Camera Viewer is first opened, an operator will be unable to move the Indicator Rectangle (located on the trackbar) until the camera is fully initiated.

- The VMS user interface is not available in the Configuration Client (i.e. live and stored camera footage is available in the Command Centre Client only). When attempting to view a camera in the Configuration Client the message *"This VMS integration is not supported in the Configuration Client. Please launch the Command Centre Client in order to view video footage using this integration"* displays.

- This integration cannot be installed on a Command Centre Client workstation that has been deployed via Click-Once.

- A PIN cannot be entered when a camera is assigned as the Reader for a Door.

- If you receive the message *"Connection to server failed. Retrying..."* within the VMS user interface, specify a DNS server within your network settings.

- If a camera is reporting an incorrect status, perform a 'Push Configuration' on the camera item, or restart the FTCAPI Router Service on the middleware PC.

16   Troubleshooting

- If You are running this integration on a Milestone server 2018 and the camera tiles are displaying an error and not showing any footage, then install Microsoft .NET Framework 3.5 on the workstations experiencing this issue.