

## Overview

The PlateSmart ARES integrates with the exacqVision, allowing license plate images and associated data to be accessible from within exacqVision. This document assumes that the exacqVision server and the PlateSmart LPR processors are installed on separate servers and communicating across a local area network (LAN). The information provided within this document will assist in integrating PlateSmart ARES with exacqVision and explore some of the features offered with the integration, including live viewing of license plate captures, playback with associated plate data, line masking, hotlists and configuration of the features. The instructions provided will help to ensure a successful integration.

## Prerequisites

- Understanding of exacqVision and PlateSmart ARES software.
- Installation and configuration of both systems on **separate** servers and running on a working LAN.
  - For questions about the ARES installation, see the documentation provided with the [ARES software](#).
  - For questions about the exacqVision installation, see the documentation provided on [Exacq.com](#)

## Minimum Software Requirements

The PlateSmart integration in this guide was tested with the following version of exacqVision and PlateSmart ARES:

- exacqVision version 9.8.5.150630
- Enterprise license for ExacqVision software.
- PlateSmart ARES version 2.5.9
- Premium license for ARES software.
- PlateSmart ARES installed on Microsoft Windows 10® or Microsoft Windows Server 2016®

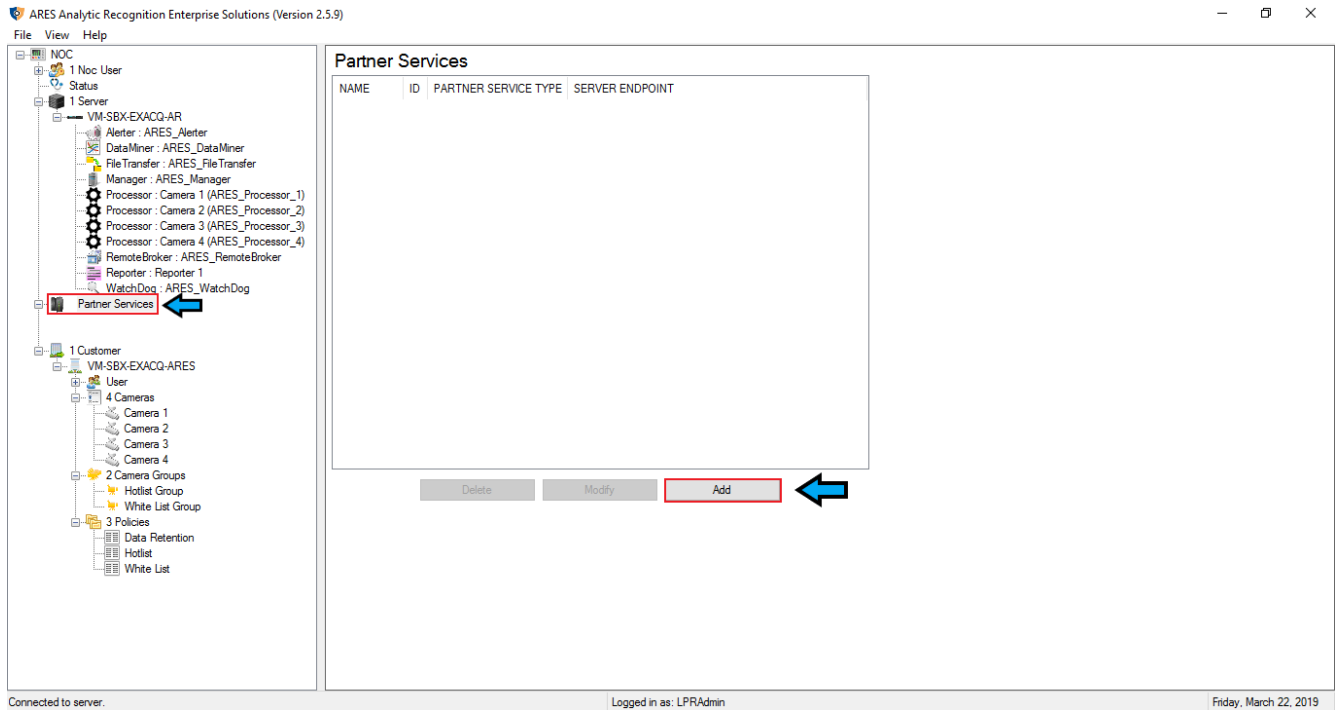


## PlateSmart Configuration

### Creating a Partner Service

Partner services are used to facilitate communication between exacqVision and ARES. A partner service allows ARES to discover cameras and send metadata to exacqVision.

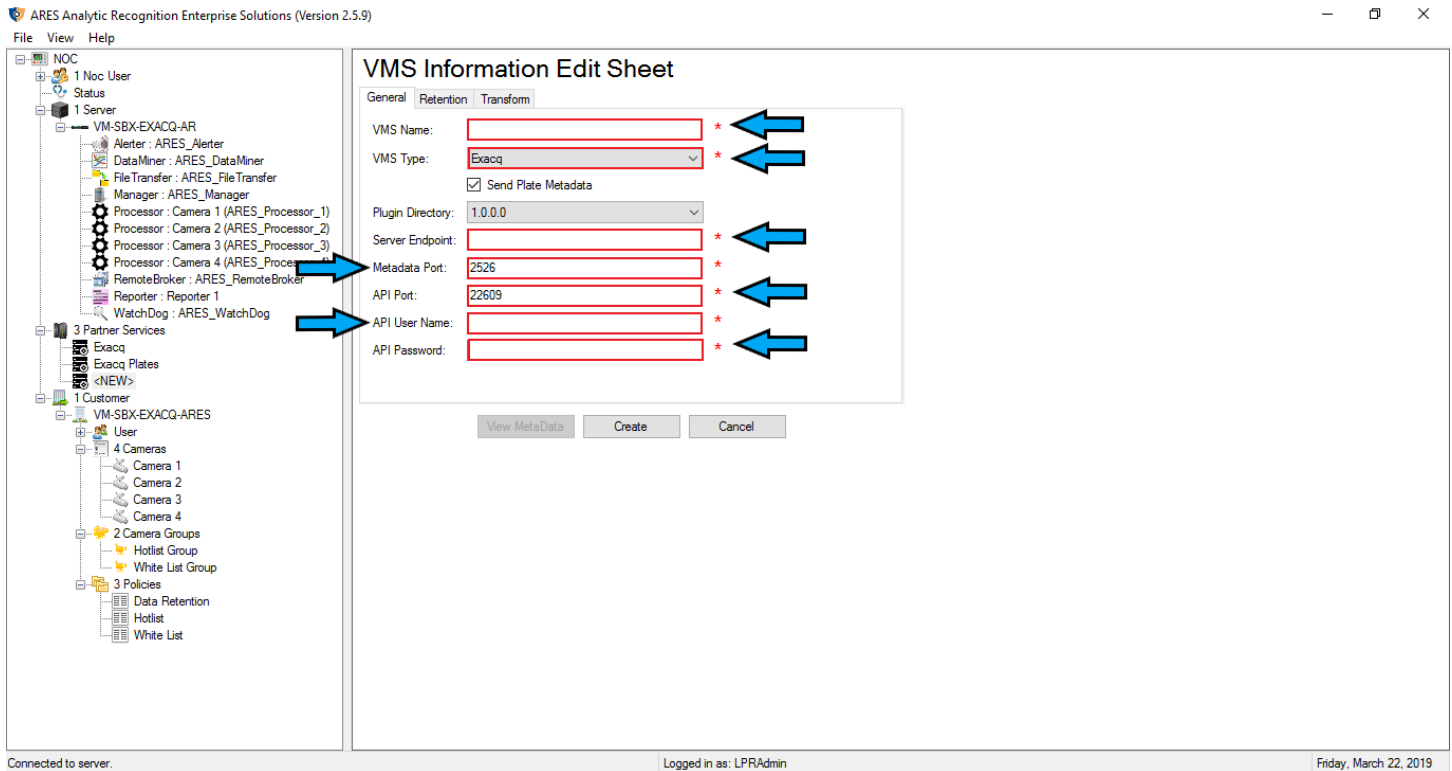
1. Click on **Partner Services**.
2. Click **Add**.



### Configuring VMS

The following illustrates how to configure the connection between exacqVision and ARES by providing the IP address of the exacqVision server along with its username, password, and port.

1. Enter a **VMS Name**.
2. Select **Exacq** as the **VMS Type**.
3. Enter the **IP address** for the exacqVision server under **Server Endpoint**.
4. Enter the **Metadata Port**. This port will be used in the exacqVision serial port configuration to receive plate information and alerts.
5. Enter the **API port**. By default, this will be 22609 for the exacqVision server.
6. Enter a qualified exacqVision server username for **API User Name**.
7. Enter a qualified exacqVision server user password for **API Password**.
8. Click **Create**.



### Adding a Camera

Cameras from exacqVision can be added in ARES through the VMS that was configured previously. This allows for a simple discovery of the network camera through exacqVision.

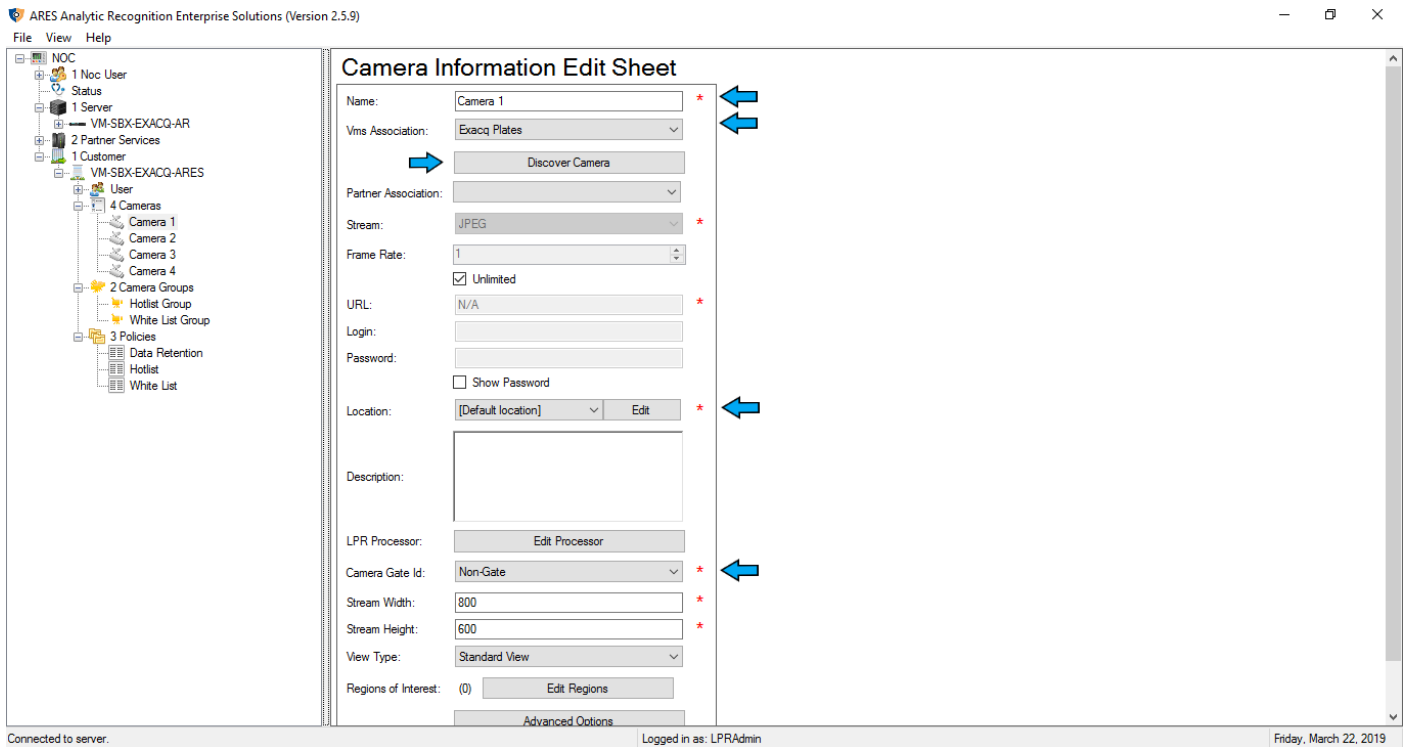
1. Expand the **Cameras** tab.
2. Select one of the cameras to modify.

NAME	CAMERA ID	APP ID	STATUS	VIEW	LICENSE	STREAM TYPE	GATE TYPE	URL
Camera 1	1	12	Active	Standard	Standard	JPEG	Non-Gate	N/A
Camera 2	2	13	Inactive	Standard	Standard	JPEG	Non-Gate	N/A
Camera 3	3	14	Inactive	Extended	Extended	MJPEG	Non-Gate	<Camera
Camera 4	4	15	Inactive	Extended	Extended	MJPEG	Non-Gate	<Camera

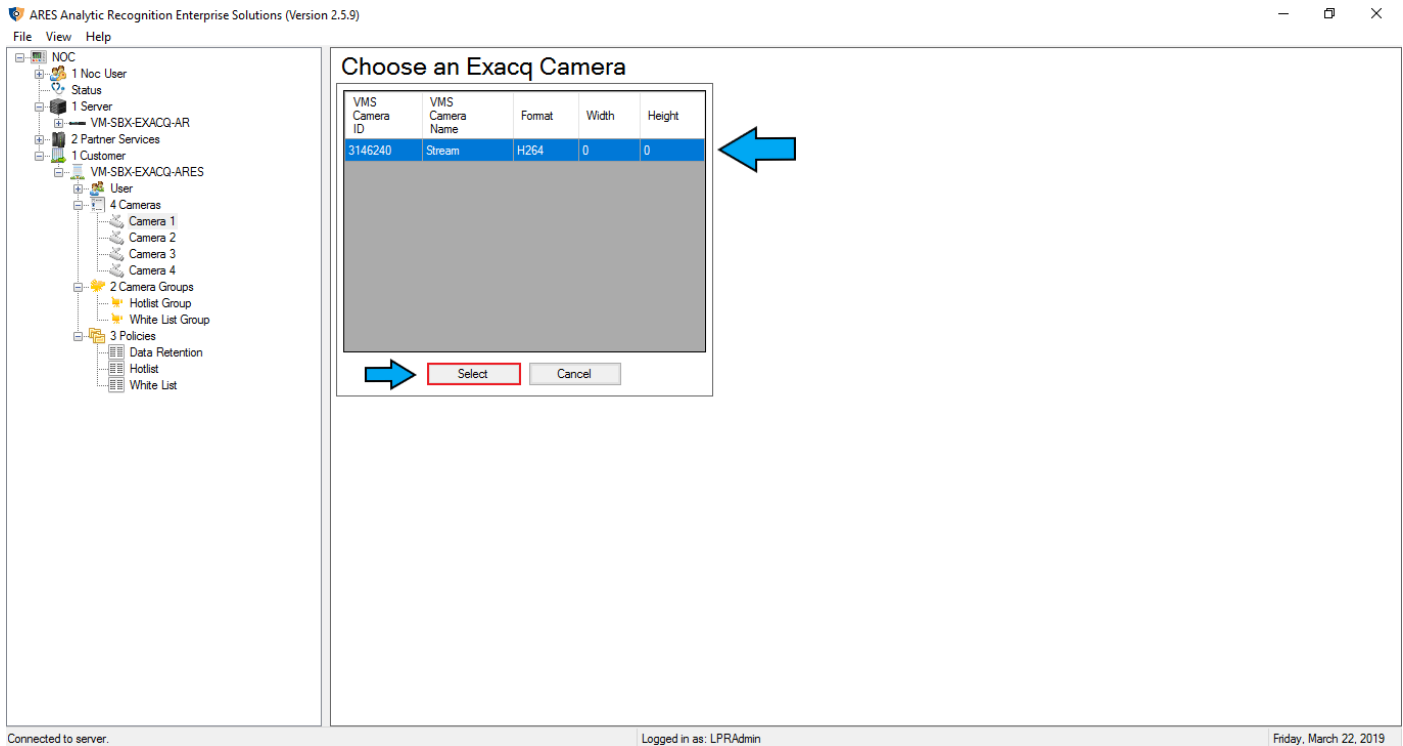
Standard View License Count : 2 of 2  
 Extended View License Count : 2 of 2



3. Enter a **Name** for the camera.
4. Select the **VMS Association**. This will be the exacqVision server configured previously.
5. Select the **Location** from the dropdown box.
6. Enter a **Camera Gate ID**. This specifies if a camera is tied to a gate configuration.
7. Click **Discover Camera** to display the camera list.



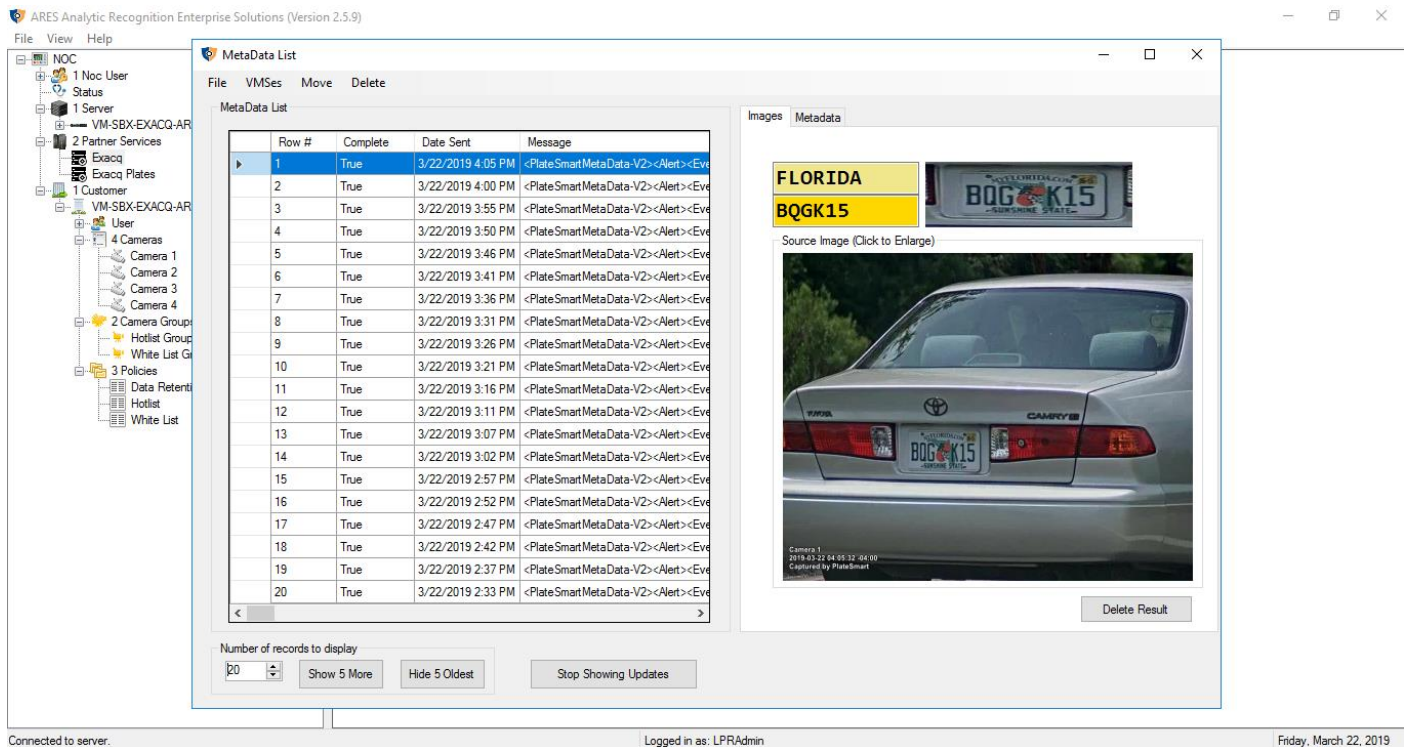
- 8. Select the exacqVision camera you want. The ID and name of the camera in the exacqVision server is displayed.
- 9. Click **Select**.
- 10. Click **Save** in the camera information edit sheet.



### Viewing Metadata

Metadata from ARES can be viewed to examine the results of the engine. This metadata is also sent to exacqVision and can be viewed through playback as well.

1. Select the **Partner Services** tab.
2. Expand and click the VMS that was created.
3. Under the **VMS Information Edit Sheet** click **View Metadata**.



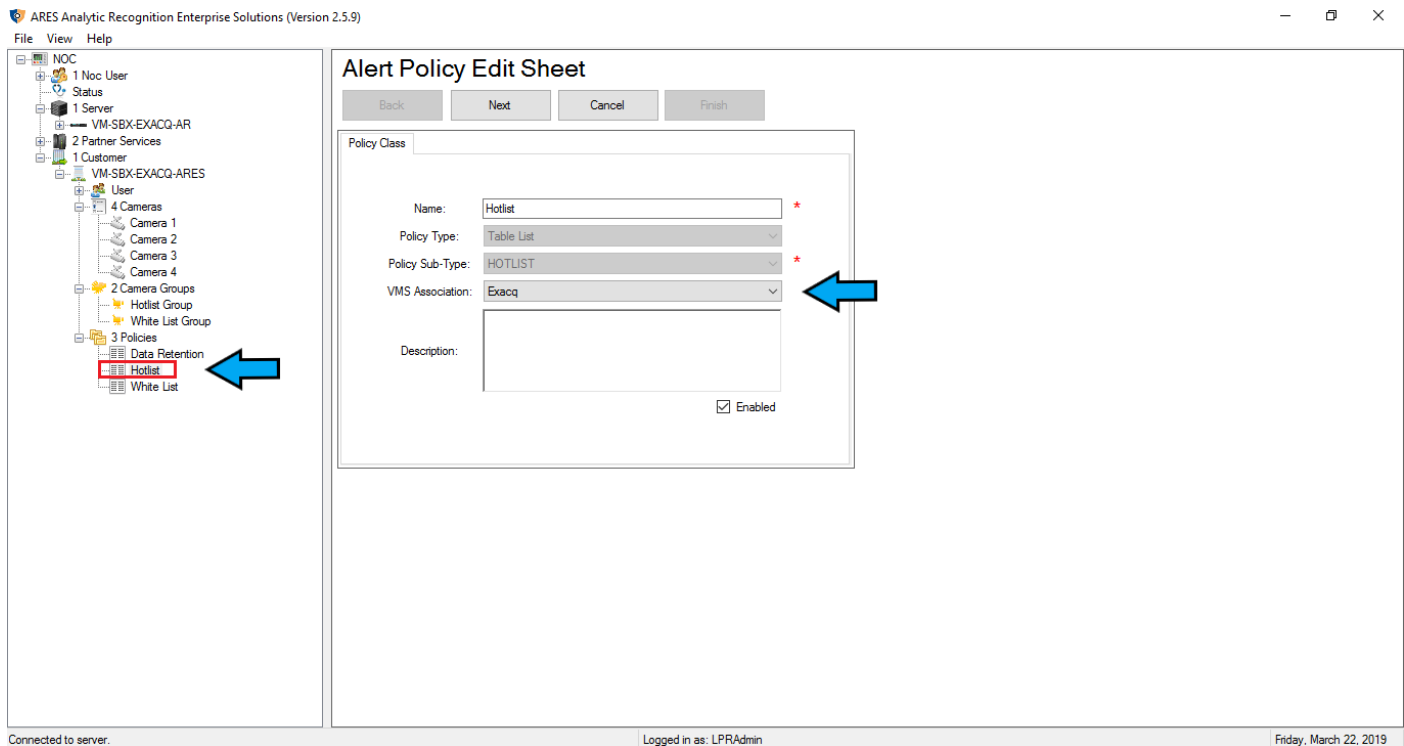
Please Note: The license plate "BQGK15" and associated example data is displayed for illustrative and example purposes only. The data illustrated was not associated to an active hotlist.



### Adding a Hotlist

Hotlists, when configured properly, will send an alert any time a registered plate is detected.

1. In ARES, navigate to the **Policies** tab, expand, and select **Hotlist**.
2. Under **VMS Association**, select the partner service that was created.





3. Select **Next** until the **Policy List** is reached under the **Alert Policy Edit Sheet**.
4. In the example entry, the tag "BQGK15"\* is added to the hotlist. Whenever ARES sees this plate, it will send the alert to the partner service associated with the hotlist.
5. **Alert Categories, Types, Codes, Priorities, and Notes** can be defined for each entry.
6. After completion, select **Finish**.

ARES Analytic Recognition Enterprise Solutions (Version 2.5.9)

File View Help

**Alert Policy Edit Sheet**

Back Next Cancel Finish

Policy List

Policy Input

Alert Tag:  Alert Category:

Alert Type:  Alert Priority:

Alert Code:  Notes:

Policy List Data

Id	Alert Tag	Alert Type	Alert Code	Alert Category	Alert Priority	Notes
1	Sample_Plate1	BOLO	Blue	1	1	This is a sample plate to populate default Typ
2	Sample_Plate2	Violation	Red	2	1	This is a sample plate to populate default Typ
3	Sample_Plate3	Police List	Yellow	3	1	This is a sample plate to populate default Typ
4	Sample_Plate4	Stolen	Green	4	1	This is a sample plate to populate default Typ
5	Sample_Plate5	Employee	Black	5	1	This is a sample plate to populate default Typ
6	BQGK15	Test Alert	Red	Hot List	1	Grey Toyota.

Policy List Control

Add Update Import CSV

Delete Delete All

Connected to server. Logged in as: LPRAdmin Friday, March 22, 2019

\*Please Note: The license plate "BQGK15" and associated example data is displayed for illustrative and example purposes only. The data illustrated was not associated to an active hotlist nor have any BOLO lists been used in the creation of this document.

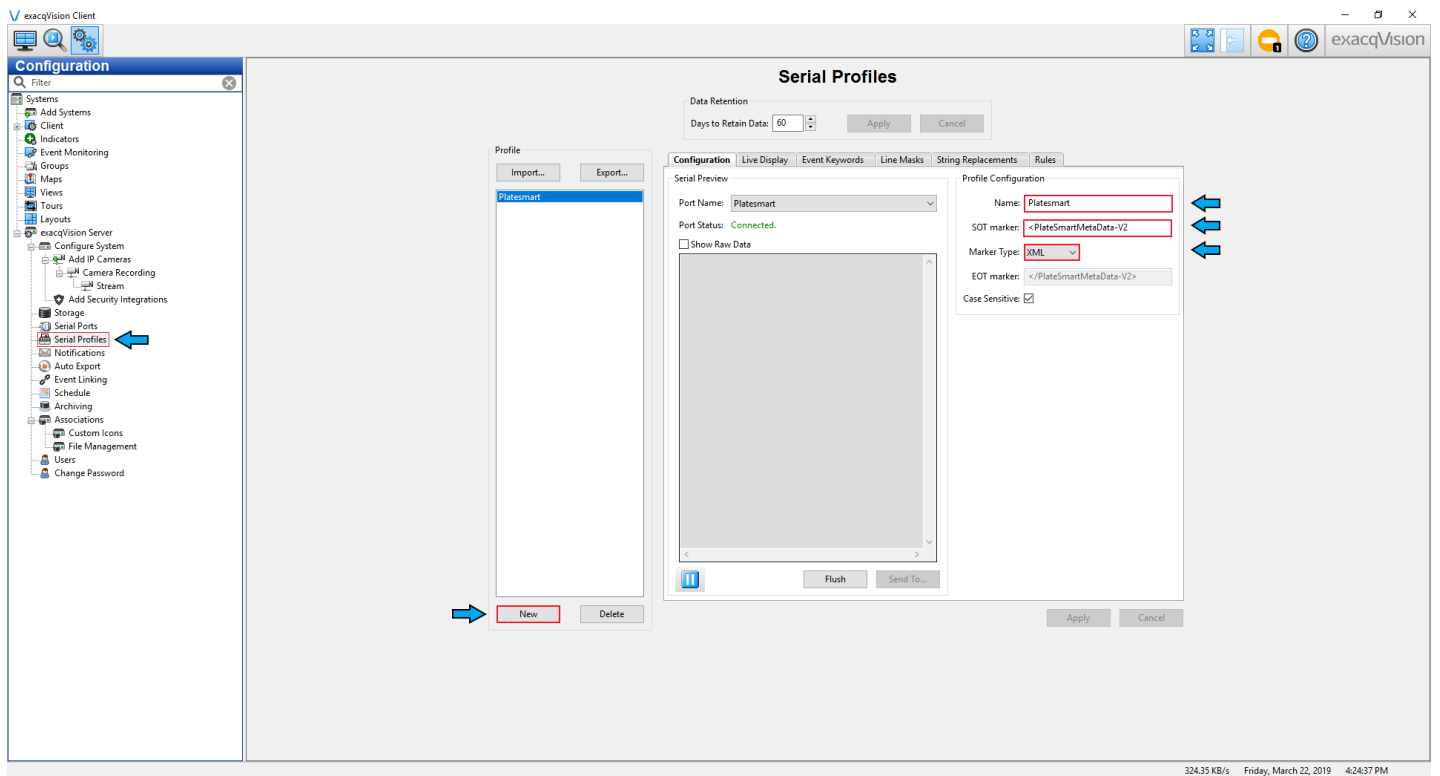


## exacqVision Configuration

### Adding a Serial Profile

Serial profiles are used along with the serial ports in order to define the SOT marker and marker type for the metadata.

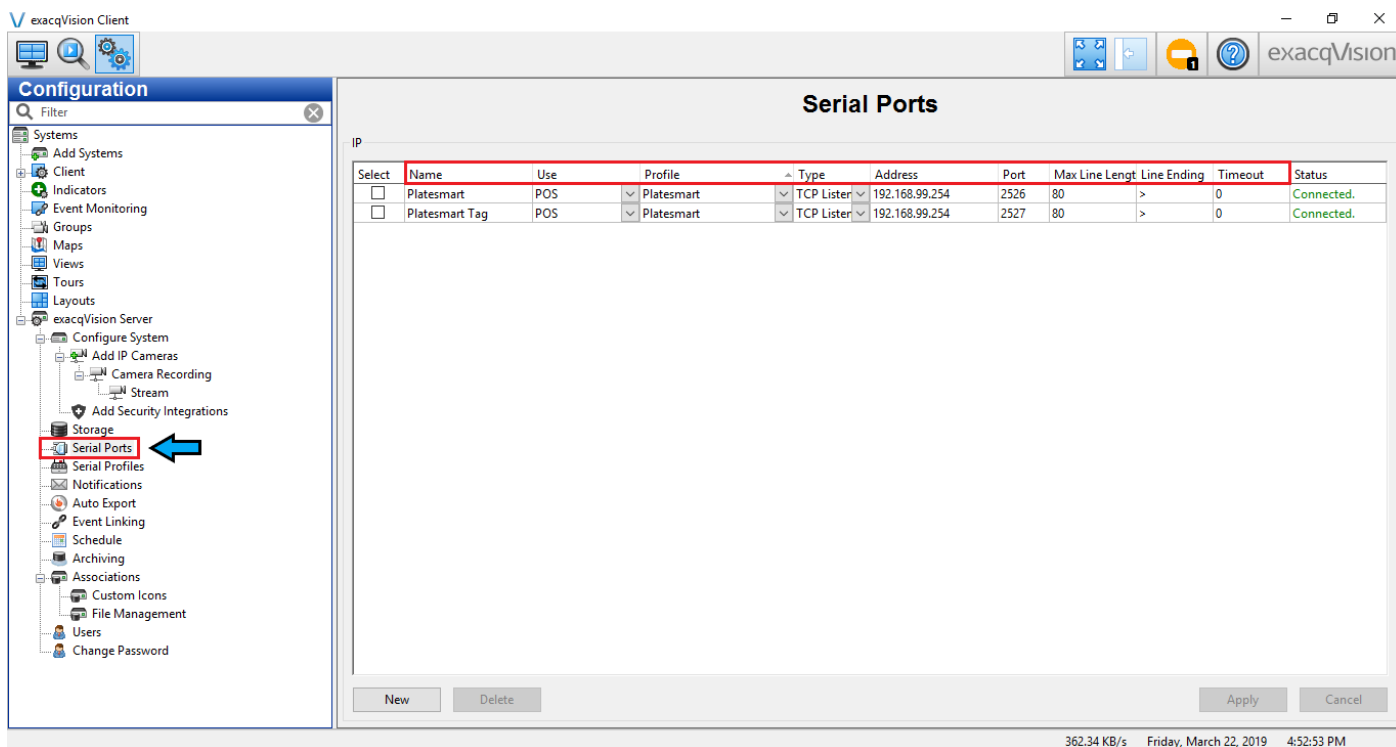
1. On the exacqVision server, select **Serial Profiles** from the tree.
2. Under the **Profile** section of the navigation tree, select **New**.
3. Enter a **Profile Name**, such as Platesmart.
4. Enter the **SOT marker** <PlateSmartMetaData-V2.
5. Select the **Marker Type** dropdown to be XML.
6. Click **Apply**.



### Configuring Serial Ports

Serial ports are configured to receive data from ARES so the metadata can be processed and stored. This metadata can also be viewed during a live stream or during the playback.

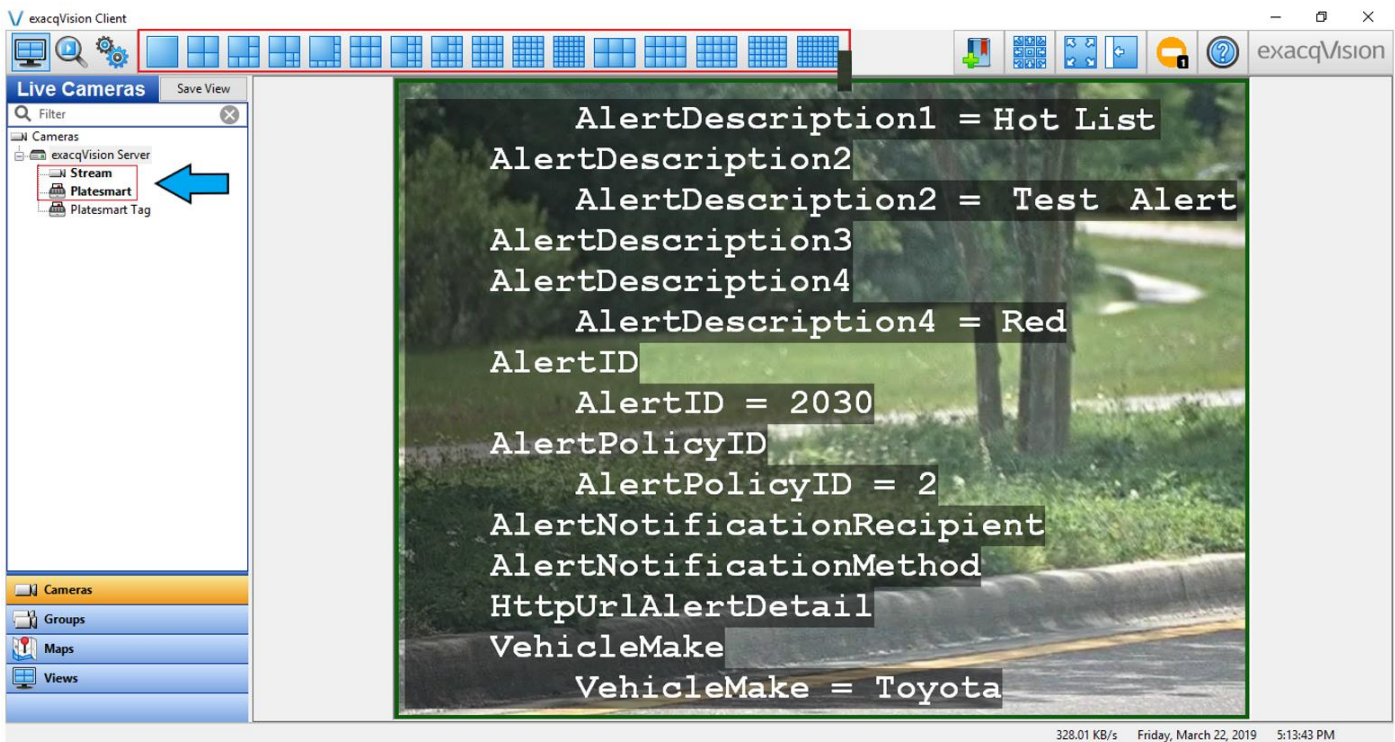
1. Select the **Serial Ports** tab, directly above the **Serial Profiles** tab.
2. Create a **Name** for the serial port.
3. Under the **Use** column, select **POS**.
4. Under the **Profile** column, select the profile you created in the last page.
5. Under the **Type** column, select **TCP Listener**.
6. Under the **Address** column, enter the IP address of the PlateSmart machine. If both are running on the same machine, use the IP address of the exacqVision server.
7. In the **Port** column, enter the **Metadata Port** that was defined in the ARES setup under the partner service that was created.
8. Enter **80** under the **Max Line Length** column.
9. Under the **Line Ending** column, enter “>”.
10. Enter “0” in the **Timeout** column and click **Apply** when finished.



**Streaming Live Video**

A live video stream can be configured to view the camera in real time. The metadata can also be used as an overlay to the stream so results can be displayed during the live stream.

1. To view the live stream, click on the top left button **Live Page**.
2. After this, a viewing mode can be selected via the tiling options on the top.
3. Drag the desired stream into one of the boxes.
4. The POS can also be dragged into its own box or the box with the stream. If placed in the box in the screen, it will act as an overlay like in the following screenshot.
5. In the screenshot, there are two types of alerts, one alert that is generated from seeing plates in the hotlist (PlateSmart) and another alert that is generated from all plates (PlateSmart Tag).

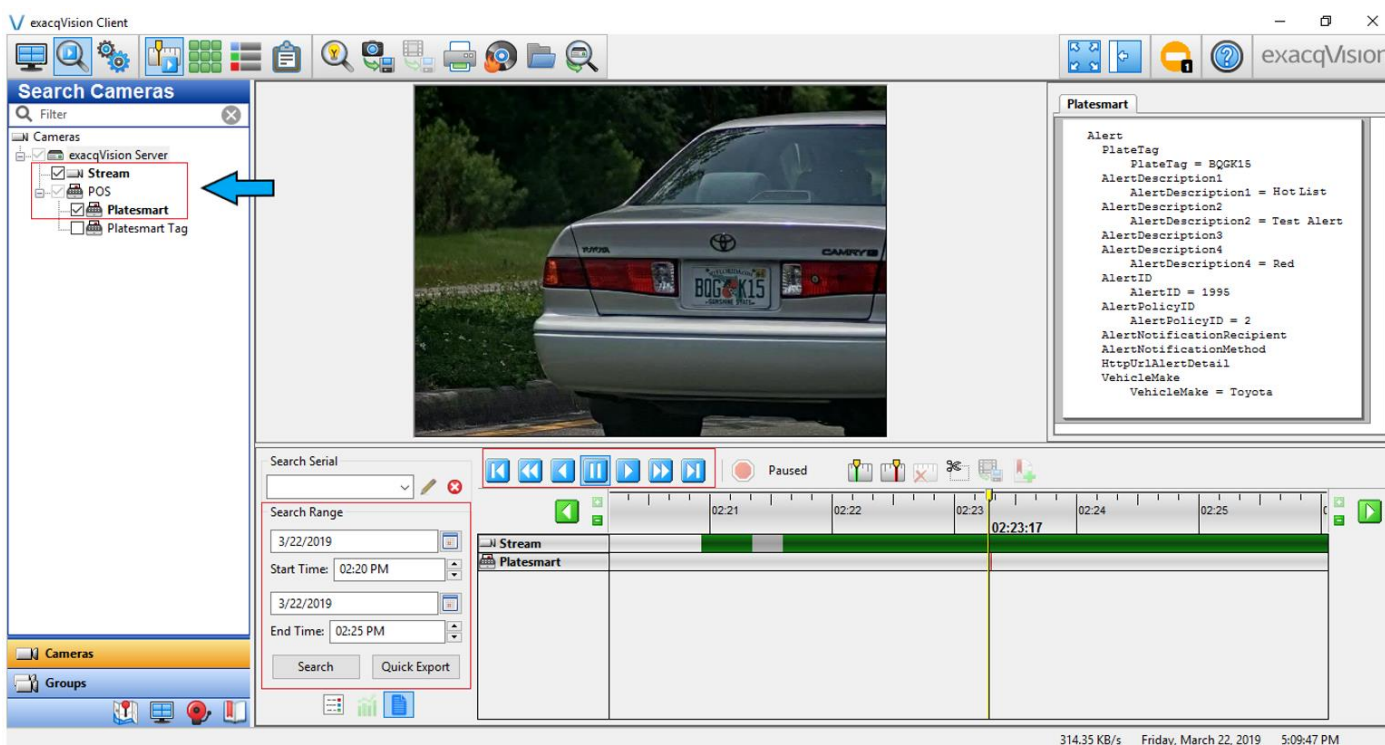


\*Please Note: The example data is displayed for illustrative and example purposes only.

### Viewing Playback

Recorded video can be accessed through the playback feature. Similar to the live stream feature, the metadata can be used as an overlay in the video.

1. To playback video and look for events, click the **Search Page** button to the right of the **Live Page** button.
2. Under **Search Cameras**, select the stream to search and the desired POS.
3. Enter a time range with a start time and end time.
4. Click **Search**.
5. The stream can be zoomed in or out to focus on certain events. Use the media buttons to fast forward, reverse, pause, etc.



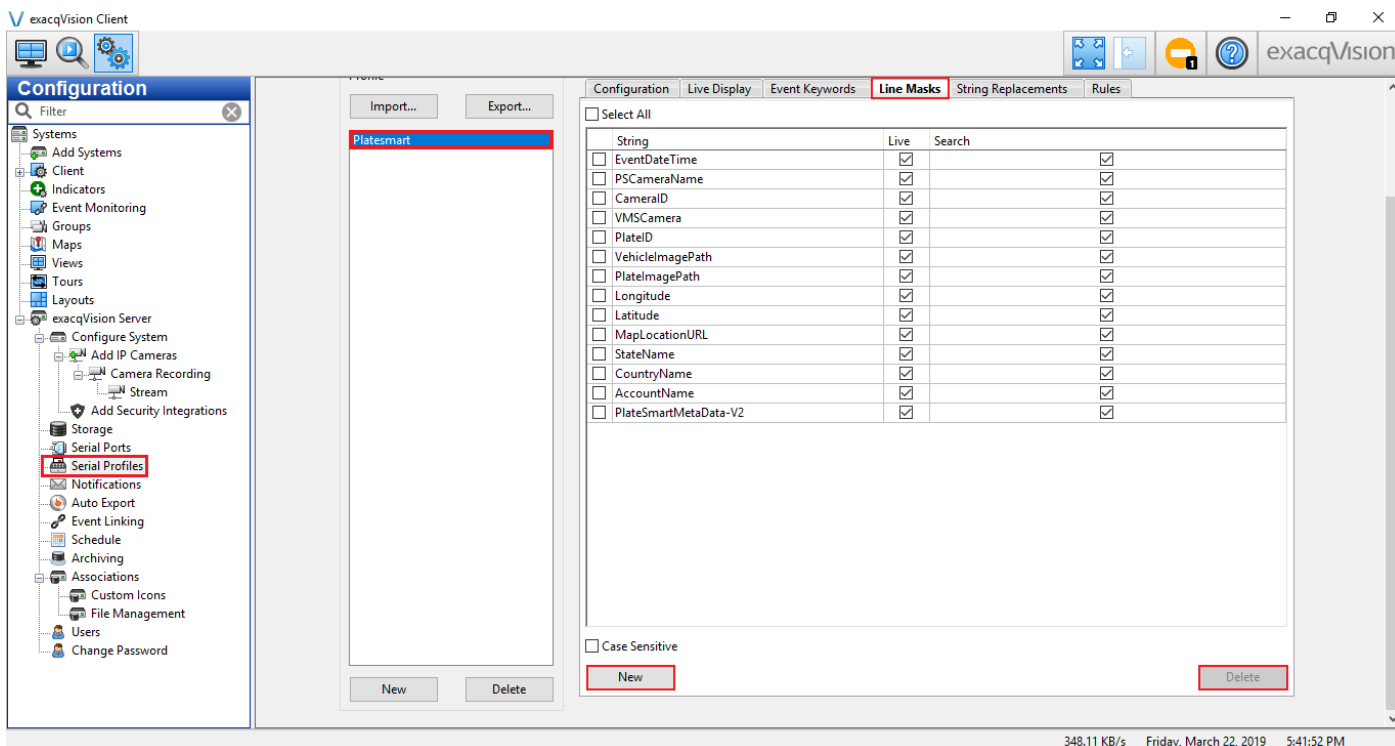
**\*Please Note:** The license plate “BQGK15” and associated example data is displayed for illustrative and example purposes only. The data illustrated was not associated to an active hotlist.



### Line Masks

This feature can be used to exclude data that should not be seen in the metadata output. By adding strings to the line mask, metadata will be hidden from the user to provide cleaner output.

1. Select **Serial Profiles**, then select the profile you would like to modify.
2. Navigate to **Line Masks**.
3. Lines must be added manually using the **New** button and excluding information not wanted in the output string.
4. If the **Live** checkbox is selected, it will exclude the subsequent string from outputting on the live view. The same concept is true for the search checkbox.
5. The **Select** checkbox on the left can be used to select strings, and the **Delete** button can be used to delete these selected strings.
6. The following attributes of the metadata are show in the XML format section as an example.



### XML Format

Knowing the XML format is necessary in order to use line masking. When a plate that is not registered on the hotlist is detected, the data received from ARES will be in the form of the plate metadata. Otherwise, if the plate is registered on the hotlist, the data received from ARES will be in the form of the alert metadata. This will provide additional information such as alert descriptions.

### Plate Metadata

```
<PlateSmartMetaData-V2>
  <Plate>
    <EventDateTime>2/4/2019 5:22:21 PM</EventDateTime>
    <PSCameraName>Camera 1 - Exacq</PSCameraName>
    <CameraID>1573888</CameraID>
    <VMSCamera>Arecont 51</VMSCamera>
    <PlateID>204</PlateID>
    <PlateTag>BQGK15</PlateTag>
    <VehicleImagePath>http://127.0.0.1:8080/Images/LPR_DIR/2015/08/04/17/63954afd-0d37-4046-a10f-572e602c5572_061VWM.jpeg</VehicleImagePath>
    <PlateImagePath>http://127.0.0.1:8080/Images/LPR_DIR/2015/08/04/17/63954afd-0d37-4046-a10f-572e602c5572_061VWM_PLATE.jpeg</PlateImagePath>
    <Longitude></Longitude>
    <Latitude></Latitude>
    <MapLocationURL></MapLocationURL>
    <StateName>N/A</StateName>
    <CountryName>United States Of America</CountryName>
    <AccountName>Customer 1</AccountName>
  </Plate>
</PlateSmartMetaData-V2>
```

### Alert Metadata

```
<PlateSmartMetaData-V2>
  <Alert>
    <EventDateTime>2/5/2019 6:26:11 PM</EventDateTime>
    <PSCameraName>Camera 2</PSCameraName>
    <PlateID>218808</PlateID>
    <PlateTag>BQGK15</PlateTag>
    <VehicleImagePath>http://127.0.0.1:8080/Images/LPR_DIR/2015/08/10/13/5c48d3ea-a36d-49ec-8151-c853d3ad8464_N781WG.jpeg</VehicleImagePath>
    <PlateImagePath>http://127.0.0.1:8080/Images/LPR_DIR/2015/08/10/13/5c48d3ea-a36d-49ec-8151-c853d3ad8464_N781WG_PLATE.jpeg</PlateImagePath>
    <Longitude></Longitude>
    <Latitude></Latitude>
    <MapLocationURL></MapLocationURL>
    <AlertDescription1>Alert Category Value</AlertDescription1>
    <AlertDescription2>Alert Type Value</AlertDescription2>
    <AlertDescription3>Level 1</AlertDescription3>
    <AlertDescription4>Alert Code Value</AlertDescription4>
    <StateName>Florida</StateName>
    <CountryName>United States Of America</CountryName>
    <AccountName>Customer 1</AccountName>
    <AlertID>22</AlertID>
    <AlertPolicyID>1</AlertPolicyID>
    <AlertNotificationRecipient></AlertNotificationRecipient>
    <AlertNotificationMethod></AlertNotificationMethod>
    <HttpUrlAlertDetail>http://PlateSmart.Com/?AD=22</HttpUrlAlertDetail>
  </Alert>
</PlateSmartMetaData-V2>
```



## Contact info and Support

**PlateSmart Support** (Technical Support, Customer Service, Sales, and more)

<https://www.platesmart.com/contact-platesmart/>

**Exacq Support** (Technical Support, Training tools, and more)

<https://exacq.com/support/>

