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Milestone Systems

XProtect® LPR 2025 R2

User manual



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XProtect LPR for operators

XProtect LPR enables you to use video-based content analysis (VCA) and recognition of vehicle license plates that interacts with your surveillance system and your XProtect Smart Client.

To read the characters on a plate, XProtect LPR uses optical character recognition on images aided by specialized camera settings.

You can combine LPR (license plate recognition) with other surveillance features such as recording and eventbased activation of outputs.

Examples of events in XProtect LPR:

- Activate recordings in a particular quality
- Trigger alarms
- Match against positive and negative match lists
- Open gates
- Switch on lights
- Automatically display incident footage on the screens of designated security staff
- Send text messages to mobile phones.

With an event, you can activate alarms in XProtect Smart Client.

What's new?

In XProtect LPR 2025 R1

Added vehicle properties to searches and in LPR match lists

Milestone has added vehicle properties to XProtect LPR. Users of XProtect® LPR in XProtect Smart Client can refine their searches by specifying detailed vehicle properties, such as the make, model, and color of the vehicle.

Users can specify and adjust what vehicle properties they need in searches on the built-in **Search** tab in XProtect Smart Client or in match lists on the **LPR** tab.

For a full list of vehicle properties and their associated values, https://doc.milestonesys.com/en-US/csh?context=1111044.

Adding LPR content to your views

Add LPR cameras to views

- 1. In **Setup** mode, select the view you want to add an LPR camera to.
- 2. In the **System overview** pane, click **LPR** and drag it to the relevant view item.
- 3. In the **Select LPR camera** dialog box, expand the required server to view a list of available LPR cameras from that server.

You can specify how you want to display LPR camera events in live mode in the **Properties** pane (see Adjust LPR view settings on page 6).

Adjust LPR view settings

- 1. In live mode, click Setup.
- 2. In **Properties**, next to **LPR camera**, click the **Browse** button to open the **Select LPR camera** dialog box and select another LPR camera.
- 3. Choose the order of LPR events in your lists on the right-hand side of the preview:
 - Newest on top: Display the newest LPR events at the top of the list
 - Newest on bottom: Display the newest LPR events at the bottom of the list
- 4. If you want to display the list of license plates from one camera but want to view video from another, select a different camera in the **Camera name** field.

Enable LPR server status on maps

It is possible to visualize LPR servers on maps and have their current status shown on the maps. To enable the LPR server status on maps:

- 1. In live mode, click **Setup**.
- 2. In **Views**, select the relevant map.
- 3. Right-click the map and select **Toolbox**.
- 4. In the toolbox, click the **Add plug-in element** icon to open the **Element selector** window.
- 5. Select the relevant LPR server and drag it onto the map.
- 6. On the map, right-click the LPR server icon and select **Status details** to get live status on the LPR server and the LPR cameras related to the server.

You can associate the LPR specific map with your Alarm list by adding the map on the Alarm Manager tab.

Enable LPR-specific elements

To be able to see all relevant information regarding LPR recognitions in your XProtect Smart Client, on the **Alarm Manager** tab, do the following:

1. On the Alarm Manager tab, in the Alarms list, right-click the Image icon next to the Quick Filters column. From the menu, select: Object, Tag, and Type.



2. Now **Type** displays all events related to LPR, **Tag** displays their country codes, and **Object** displays license plate numbers of the registered vehicles.

			-
	Traffic Court	6134/0163	08:28:44.000
Traffic Count: 0140/0203		10-09-0015	00.20.44.000
Camera: Description resources to the Billing of			Go to Alarm Time
Instructions Activities		Assigned to: State: Priority: Category: ID: Source: Alarm: Mass: Type: Type:	1: New • 1: High • 90132 LICENCE LICENCE LICENCE LICENCE
Time Activity 05:23 Initial state: 1: New 05:23 Initial priority: 1: High	Owner	Loost- Tag Object	DK EZ1202
Help Print.			OK

Viewing LPR related content

LPR in live mode

In live mode, you can view live video from the cameras that have been configured for license plate recognition (LPR). You can view video from several LPR cameras in a view at the same time. On the right-hand side of the view item, the LPR events appear whenever there is a match. In setup mode, you can change the settings that define how the list of license plate numbers displays.

When you click a license plate in the LPR event list, the live video automatically pauses and changes to independent playback. To go back to viewing live video, either click the license plate again or click the **Independent playback** icon on the camera toolbar.

LPR on the Search tab

On the Search tab, you can search for video recordings associated with vehicles.

The LPR tab

On the LPR tab, you can investigate LPR events from all your LPR cameras and view the associated video recordings and license plate recognition data. Keep match lists updated and create reports.

The tab includes an LPR event list and an LPR camera preview. In the preview, you can view video associated with LPR event details. Below the preview, information about the license plate appears together with details from the match list and the license plate style that it is associated with.

You can filter the event list according to the period, country module, LPR camera, match list, or license plate style. Use the **Search registration number** field to search for a particular license plate registration number. By default, this list shows LPR events from the last hour.

You can specify and export a report of relevant events as PDF.

You can make updates to the existing match lists by using the Match list function.

LPR event list

The LPR event list displays all LPR events. By default, the list displays LPR events from the last hour and with the newest at the top, but your system administrator can change this.

When you select an LPR event from the list, you can see a preview to the right with the related video sequence for the event. The title bar of the preview shows the name of the LPR camera that the LPR event was triggered from. You also see the:

- License plate number
- Country module
- Time of the event
- Match list that triggered the event
- License plate style (see License plate styles on page 10)

You can change how the LPR event list displays events; you can sort the columns and you can drag them to different positions. You can use the filters at the top of the list to filter LPR events or use the **Search registration number** field to search.



The LPR event list only displays LPR events from the time of your search or filter. If you want to see the latest LPR events, click the **Refresh** button.

License plate styles

A license plate style is a set of characteristics of a license plate. These characteristics include:

- The plate size and shape
- The text format and font
- The colors
- The type of vehicle that the license plate is used on.

Your system administrator can group license plate styles and give that group a custom name.



You can only add those license plate styles to match lists that were grouped and named by your system administrator.

Filtering LPR events

There are several ways you can filter the LPR event list, so it displays just the LPR events that you are interested in; you can click any of the filters at the top of the list to see only LPR events associated with that filter. Any filters you apply are immediately reflected in the list.

- Period: Select one of the available periods to see LPR events within that particular time
- **Country module**: Clear or select country modules to view only LPR events linked to a license plate from a particular country, state, or region
- LPR camera: Select one or more of the available LPR cameras to view only LPR events for those cameras

- Match list: Select one or more license plate lists to view only LPR events generated by those lists
- License plate style: Select one or more license plate styles to view only LPR events associated with those license plate styles

You can combine the filters, for example, for a particular country module on a certain date.

You can also use the **Search registration number** field to search for a particular license plate. Enter a combination of characters to find results with combinations of those characters. For example, if you enter the characters **XY 12** you will get license plates that have both XY and 12 in their number. If you enter **XY12** you will only get license plates that have XY12 in their number.

Edit match lists

You can add or delete license plates from match lists.

Add a match list

- 1. On the LPR tab, in the top-right corner of the window, click Match lists to open the Match lists window.
- 2. Click Select match list, and make the relevant edits.
- 3. To add a license plate registration number or a license plate style, click **Add**. Enter relevant information and click **OK**. You can only add those license plate styles to match lists that were grouped and named by your system administrator.
- 4. To edit an existing license plate registration number, you can use the search function to find the relevant registration number.
- 5. Double-click a single row to edit or select multiple rows and click Edit.
- 6. In the window, enter information and click **OK**. If the match list contains multiple columns, you can edit the information in all fields.

Alternatively, you can add a license plate to a match list by right-clicking an unlisted LPR event and selecting **Add to list**.

Delete license plates from match lists

- 1. To delete a license plate registration number, you can use the search function to find the relevant registration number. You can delete multiple rows at the same time if needed. Select them and click **Delete**.
- 2. Click Close.

You can also remove a license plate by selecting the relevant LPR event, and on the right, below the preview, clicking the **Remove from list** icon.

Import or export match lists

You can import a file with a list of license plates that you want to use in a match list. You have the following import options:

- Add license plates to the existing list
- Replace the existing list

This is useful if, for example, the lists are managed from a central location. Then they can keep all local installations updated by distributing a file.

Similarly you can export the complete list of license plates from a match list to an external location.

- 1. To import a match list:
 - 1. On the LPR tab, at the top right of the window, click Match Lists to open the Match Lists dialog box.
 - 2. Select the relevant list.
 - 3. To import a file, click **Import**.
 - 4. In the dialog box, specify the location of the import file and the import type. Click Next.
 - 5. Await the confirmation and click **Close**.
- 2. To export a match list:
 - 1. Click Export.
 - 2. In the dialog box, specify the location of the export file and click Next.
 - 3. Click Close.
 - 4. You can open and edit the exported file in, for example, Microsoft Excel.
- **1**

Supported formats are .txt or .csv.

Export LPR events as a report

You can export a report of LPR events to a PDF file.

1. On the LPR tab, filter or search for the events you want to include in the report.

If the number of found events is very high, you will receive a recommendation to refine the search and thereby reduce the number of search results.

2. Click the LPR Report button.

- 3. Specify the following values and click **OK**:
 - Report name
 - Report destination
 - A comment field
 - An option to include snapshots

A progress bar appears at the top right of the XProtect Smart Client window.

4. Click **Details** to view the report.



If you want to change the paper format or font, open the **Settings** window, select **Advanced**, and change the **PDF report format** or **PDF report font** settings.

LPR on the Alarm Manager tab

On the **Alarm Manager** tab, you can view and investigate alarms related to LPR. Some customization is required before you can view the information:

- Enable LPR-specific elements
- Alarms list must be in Event mode (see View LPR recognitions on page 13)

In general, read the sections about alarm management for more details on XProtect Smart Client functionality.

View LPR recognitions

You can view LPR recognitions in the alarm list. If you select events as the data source, all recognitions are displayed. If you select alarms as the data source, only the recognitions associated with an alarm are displayed.

Requirements

To use the **Type** field referred to in the steps below, the field must be enabled in XProtect Management Client by your system administrator.

- 1. Go to the Alarm Manager tab.
- 2. Click the Setup button to enter setup mode.
- 3. To view recognitions associated with an alarm:
 - 1. In the Data Source list, select Alarm.
 - 2. Select **Setup** again to exit setup mode and save your changes. The recognitions are displayed in the alarm list.
 - 3. To view incoming LPR alarms, enter LPR in the Type field.

Alarms Custom	(filter applied) ^ Clea	r filter					Reports	1-4
Priority level:	-	Source:		Message:		From:		G-10-2016
State level:	4 👻	ID:		Exclude closed alarn	ns 🗸	To:		6-10-2016
State name:		Owner:				Servers:	\checkmark	DKTA-1017CL0026
		Туре:	LPR					

- 4. To view all recognitions:
 - 1. In the Data Source list, select Event.
 - 2. Select **Setup** again to exit setup mode and save your changes. The recognitions are displayed in the alarm list.
 - 3. To view all incoming LPR events, enter LPR in the Type field.

The alarm list will display the filtered results only when you leave the field you modified.

Show or hide vehicle properties on the LPR tab

When you look at the match lists on the **LPR** tab, vehicle properties such as make, model, and type of vehicle are included by default in the results.

However, you might want to hide them in certain scenarios where these properties are not related to your use of XProtect LPR.

To switch between showing and hiding vehicle properties:

- 1. On the LPRtab, right-click any column header in the list, for exampleMake or Model, and select Hide vehicle properties. Vehicle properties are now hidden.
- 2. To show vehicle properties again, right-click any available column header, then select **Show vehicle properties**. They are now displayed again.



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