



Milesight Edge LPR with **Luxriot EVO**

Edge LPR Integration & Monitor Configuration Guide

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1. Overview

This guide explains how to configure a Milesight LPR camera to send edge license plate recognition metadata into Luxriot EVO and make the dedicated LPR tab available in Luxriot EVO Monitor. The recognition is performed by the camera; Luxriot EVO receives the resulting plate and vehicle metadata for operator search, review, grouping, and rule-based actions.

What the integration provides

- Edge LPR results generated directly by the Milesight camera.
- A dedicated LPR tab in Luxriot EVO Monitor for plate-result review.
- Search using plate values and recognized vehicle attributes such as color, type, brand, direction, and country/region when supplied by the camera.
- Optional LPR subjects and tags that can organize plates into operational groups for use with Events & Actions.

Important: This workflow requires the Milesight camera to be added with the Milesight TS2966-X12TVPE driver and requires the camera-side LPR engine and metadata transmission to be enabled.

Configuration flow

Milesight camera LPR engine -> camera metadata transmission -> Luxriot EVO channel metadata -> Luxriot EVO Monitor LPR tab -> optional subjects, tags, and Events & Actions rules.

2. Add the Milesight LPR Camera to Luxriot EVO

Add or edit the Milesight LPR camera in Luxriot EVO Console and select the Milesight TS2966-X12TVPE driver. This driver is required for the edge LPR metadata workflow demonstrated in this guide.

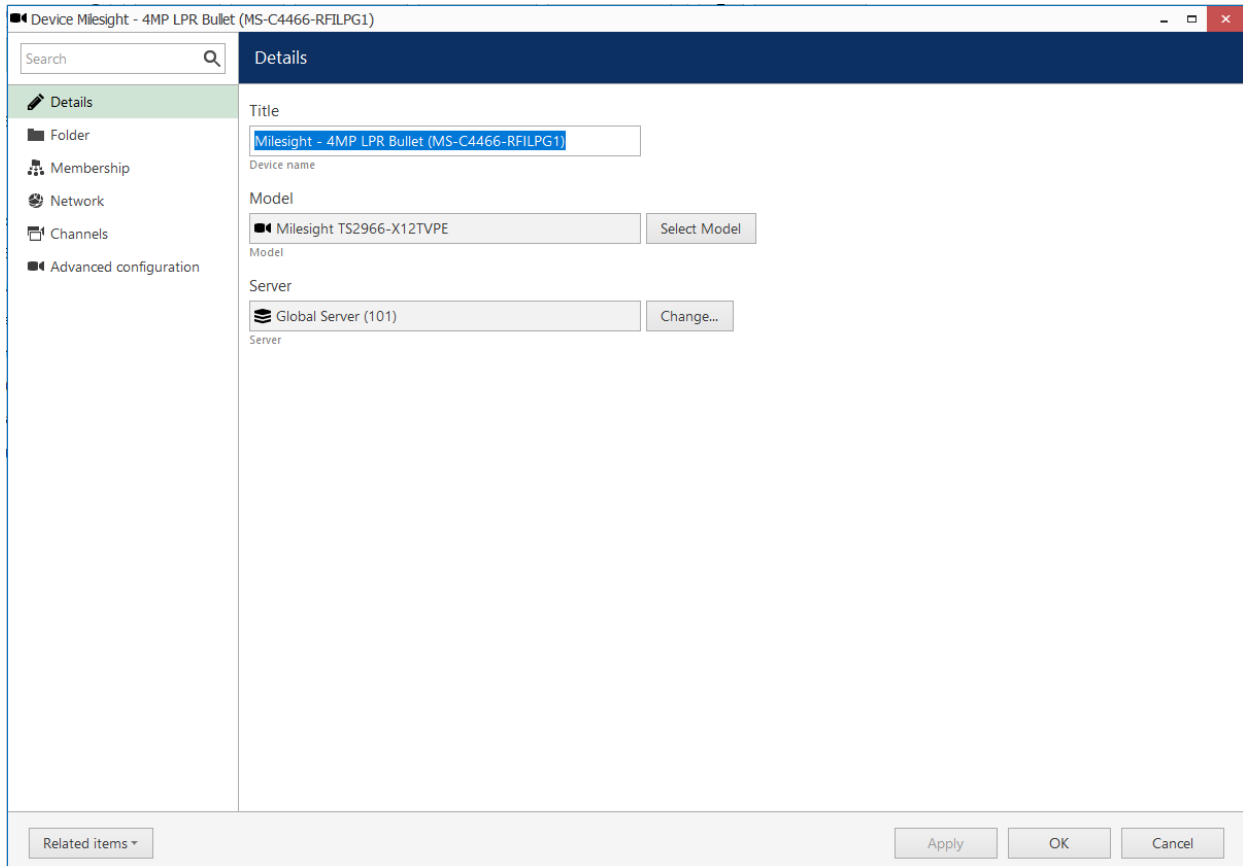


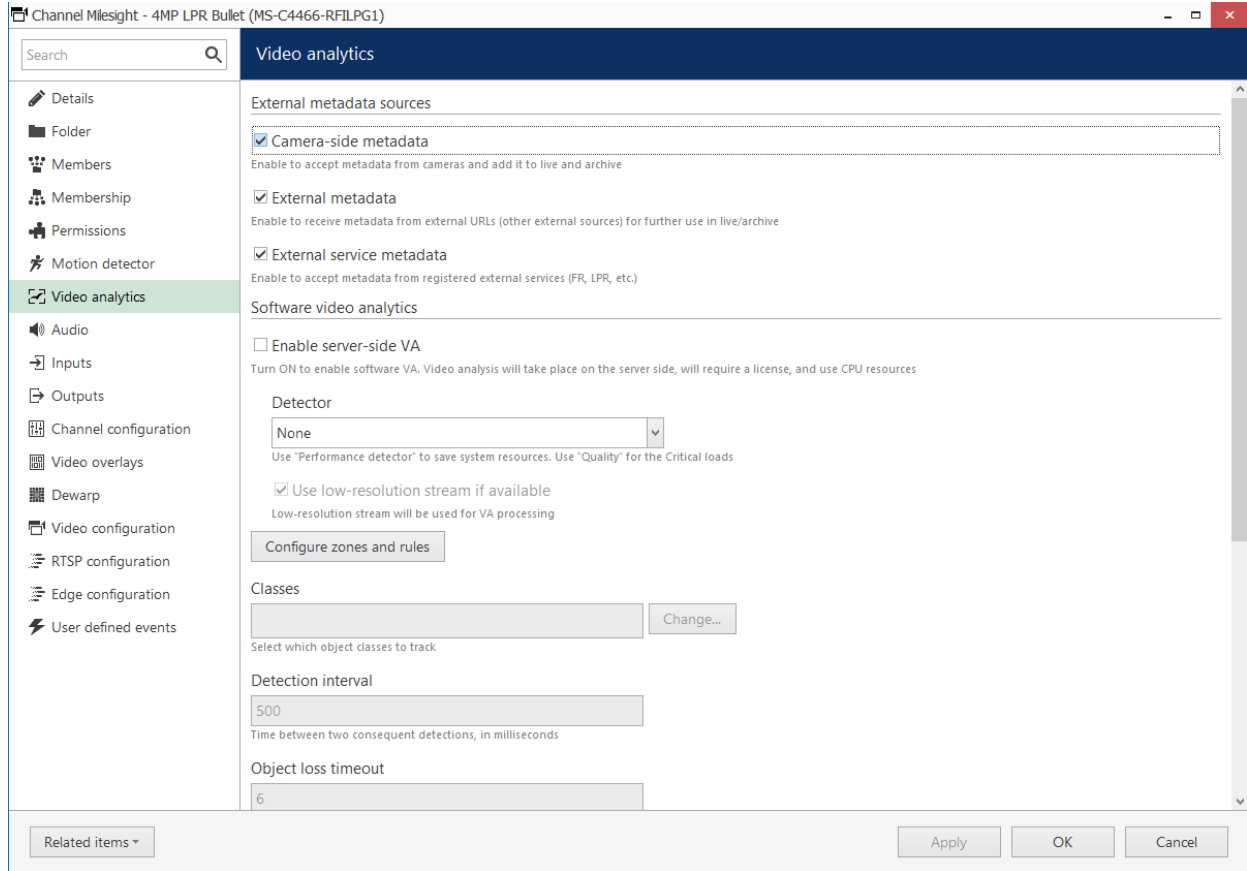
Figure 1. Milesight LPR camera configured with the TS2966-X12TVPE driver.

Driver selection: If the camera is added with a generic or different driver, the video stream may still be available while the edge LPR metadata integration does not behave as shown here.

3. Enable Metadata on the EVO Channel

In Luxriot EVO Console, open Configuration > Channels, edit the Milesight LPR channel, and select Video analytics. Enable the metadata options required for the integration.

Setting	Purpose
Camera-side metadata	Enables device-side analytics metadata and detection visualization such as bounding boxes.
External metadata	Enables metadata passthrough used by the LPR tab in Luxriot EVO Monitor.
External service metadata	Used for EVA-ADV. It is not required for this edge LPR workflow, but it may remain enabled.



Channel Milesight - 4MP LPR Bullet (MS-C4466-RFILPG1)

Search

Video analytics

Details
Folder
Members
Membership
Permissions
Motion detector
Video analytics
Audio
Inputs
Outputs
Channel configuration
Video overlays
Dewarp
Video configuration
RTSP configuration
Edge configuration
User defined events

External metadata sources

☒ Camera-side metadata
Enable to accept metadata from cameras and add it to live and archive

☒ External metadata
Enable to receive metadata from external URLs (other external sources) for further use in live/archive

☒ External service metadata
Enable to accept metadata from registered external services (FR, LPR, etc.)

Software video analytics

☐ Enable server-side VA
Turn ON to enable software VA. Video analysis will take place on the server side, will require a license, and use CPU resources

Detector
None
Use "Performance detector" to save system resources. Use "Quality" for the Critical loads

☒ Use low-resolution stream if available
Low-resolution stream will be used for VA processing

Configure zones and rules

Classes
Change...
Select which object classes to track

Detection interval
500
Time between two consequent detections, in milliseconds

Object loss timeout
6

Related items

Apply OK Cancel

Figure 2. Metadata options enabled under the channel Video analytics settings.

4. Configure Edge LPR on the Milesight Camera

Log in to the Milesight camera web interface and enable LPR. The camera must be configured to perform the plate recognition before EVO can receive meaningful LPR results.

1. Open the LPR configuration on the Milesight camera.
2. Draw the LPR detection region and click Add after defining the zone.
3. Configure the LPR engine for the correct country/region and deployment-specific recognition settings.
4. Enable the attribute identification options that should be transmitted with each result.

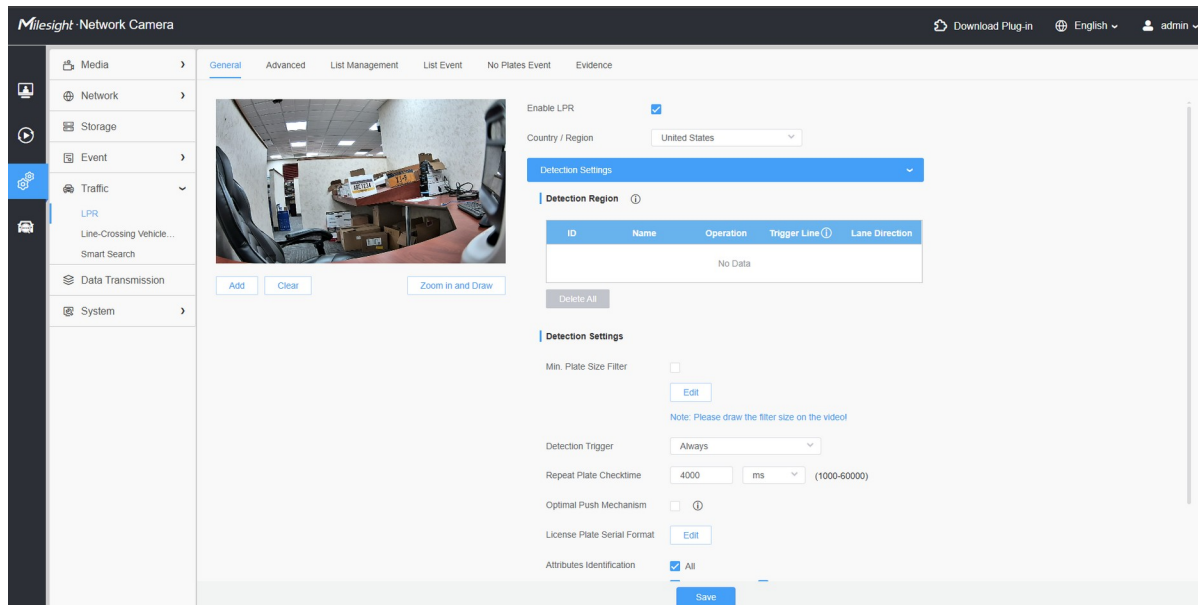


Figure 3. Milesight LPR configuration, detection region, and recognition settings.

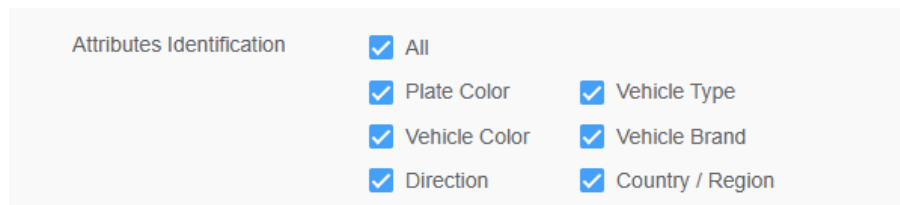


Figure 4. Attribute identification options available for the LPR result.

Attribute identification: The demonstrated setup enables plate color, vehicle type, vehicle color, vehicle brand, direction, and country/region. Available attributes can vary by camera model and firmware.

5. Enable Metadata Transmission

The Milesight camera must be configured to transmit its LPR metadata. Open Data Transmission in the Milesight interface, select More, enable Metadata Transmission, and save the configuration.

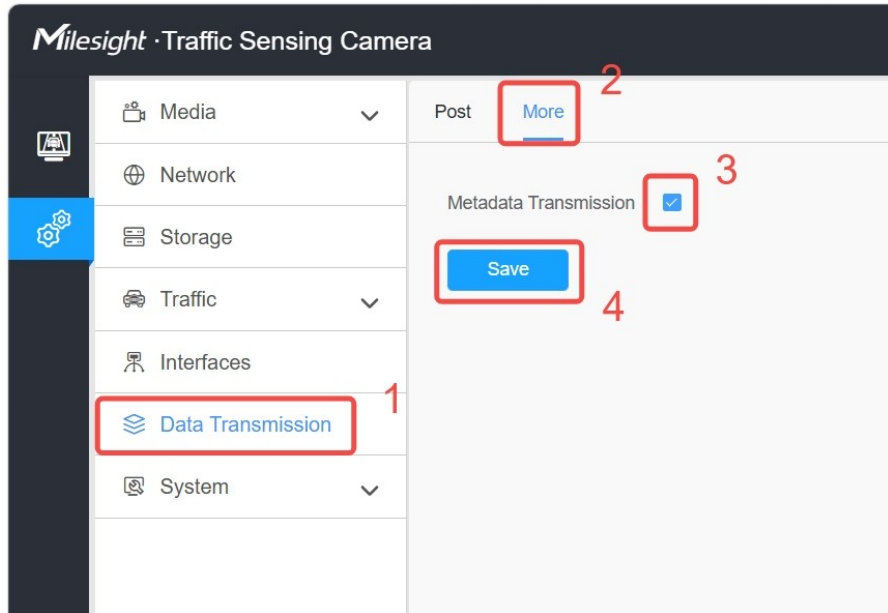


Figure 5. Enabling Metadata Transmission in the Milesight camera interface.

Restart required: After saving the camera-side settings, restart the camera so the LPR and metadata-transmission configuration is fully applied before validating the results in Luxriot EVO.

What this step enables

The camera can perform LPR locally, but the Monitor LPR tab depends on that recognition metadata being transmitted to EVO. If the camera recognizes plates but the LPR tab remains empty, this setting is one of the first items to verify.

6. Verify the LPR Tab in Luxriot EVO Monitor

After the camera reconnects and begins sending metadata, open Luxriot EVO Monitor. The LPR tab should be available and should populate with recognition results from the Milesight channel.

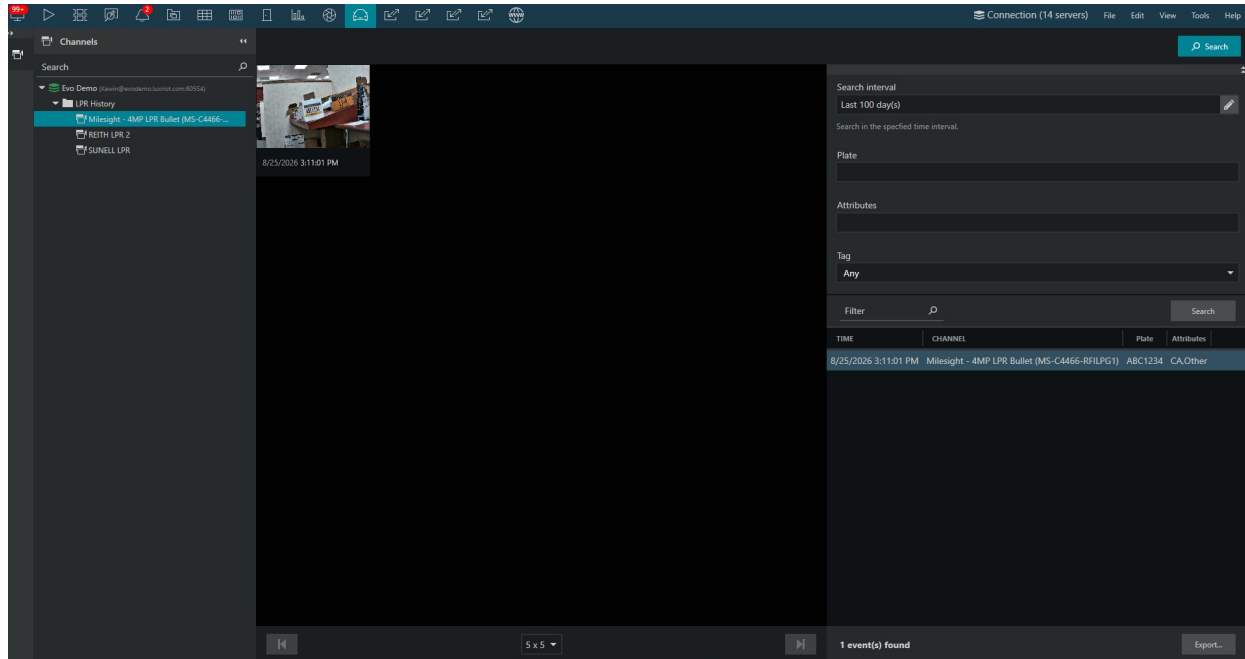


Figure 6. Luxriot EVO Monitor LPR tab receiving edge LPR results from the Milesight camera.

Searching the LPR results

The LPR view can be searched by the recognized plate value and by supported attributes. For example, an operator can combine a vehicle attribute such as blue with a plate region such as PA when those values are included in the recognition metadata.

Verification: Confirm that new plate reads appear in the result list before proceeding to optional subjects, tags, and rules. This proves that the camera driver, channel metadata, camera LPR, and metadata transmission are all functioning together.

7. Create LPR Subjects

Luxriot EVO can define LPR subjects for specific plate values. Subjects provide a reusable identity that can later be grouped with tags and used in Events & Actions logic.

Exact plate subject

Create a subject when you want to identify one exact plate. Enter the plate value in the Pattern field without using a mask when the subject should match only that value.

The screenshot shows a web application window titled "LPR Subject John*". On the left is a sidebar with a search bar and two menu items: "Details*" (selected) and "Tags". The main area displays the "Details" configuration for the subject. It includes a "Title" field with the value "John", a "Subject name" field with the value "LUXRIOT", and a "Pattern" field with the value "LUXRIOT". Below these fields is a "Mask" checkbox, which is currently unchecked. A note below the checkbox states: "When checked, the pattern will be used as mask, not exact match". At the bottom right of the window are three buttons: "Apply", "OK", and "Cancel".

Figure 7. Example LPR subject configured for an exact plate value.

Operational example

A specific employee or authorized vehicle can be represented by an exact plate subject. That subject can then be assigned to an Employees tag and referenced by a rule when the camera reads the plate.

8. Create Pattern-Based LPR Subjects

LPR subjects can also represent groups of plates instead of a single exact value. When Mask is enabled, the Pattern field can use regular-expression matching.

Example: plates beginning with a specific character

A masked subject can represent plates that begin with a specific character, such as K. The exact expression should be designed for the plate format and matching behavior required by the deployment.

The screenshot shows a configuration window titled "LPR Subject K-Plates". It features a search bar at the top left. Below it, there are two tabs: "Details" (selected) and "Tags". The "Details" tab contains the following fields and controls:

- Title:** A text field containing "K-Plates".
- Subject name:** A text field.
- Pattern:** A text field containing "K*".
- Mask:** A checkbox that is checked. Below it, a note reads: "When checked, the pattern will be used as mask, not exact match".

At the bottom right of the window, there are three buttons: "Apply", "OK", and "Cancel".

Figure 8. Example masked LPR subject used to represent a group of plate values.

Flexible matching

Because the subject can use a regular expression, it can also match a known sequence within a plate. For example, if the deployment only knows that a plate contains a specific three-character sequence, the pattern can be built around that sequence instead of requiring an exact full-plate match.

Pattern scope: Keep patterns as specific as the use case allows. A broad expression can intentionally represent many plates, but it can also create unexpected matches if it is not tested against real plate values.

9. Create and Configure LPR Tags

Tags organize LPR subjects into logical groups. In Luxriot EVO Console, go to Events & Actions > Tags and create the groups required for the deployment, such as Employees or Plate Numbers.

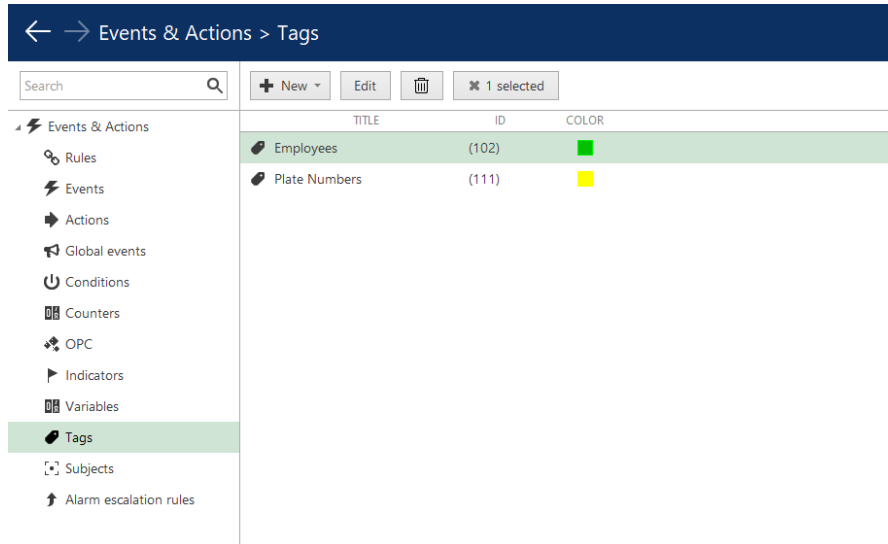


Figure 9. LPR-related tags created under Events & Actions > Tags.

Declare the tag for LPR

Open the tag properties and enable the LPR flag. This declares that the tag is intended to work with edge LPR results.

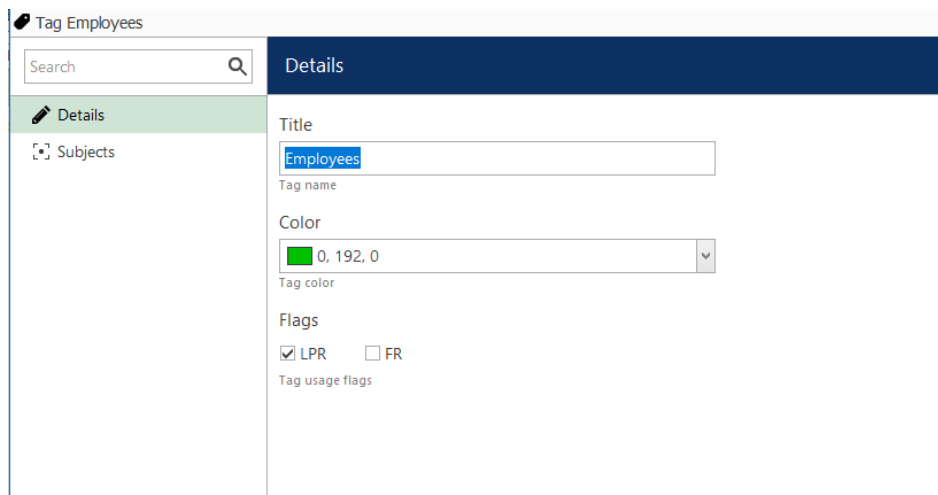


Figure 10. Tag configured for LPR results.

10. Assign Subjects and Use LPR Groups in Rules

Open the Subjects section of the LPR tag and add the exact or pattern-based subjects that should belong to the group. The demonstrated workflow performs this assignment through Luxriot EVO Console.

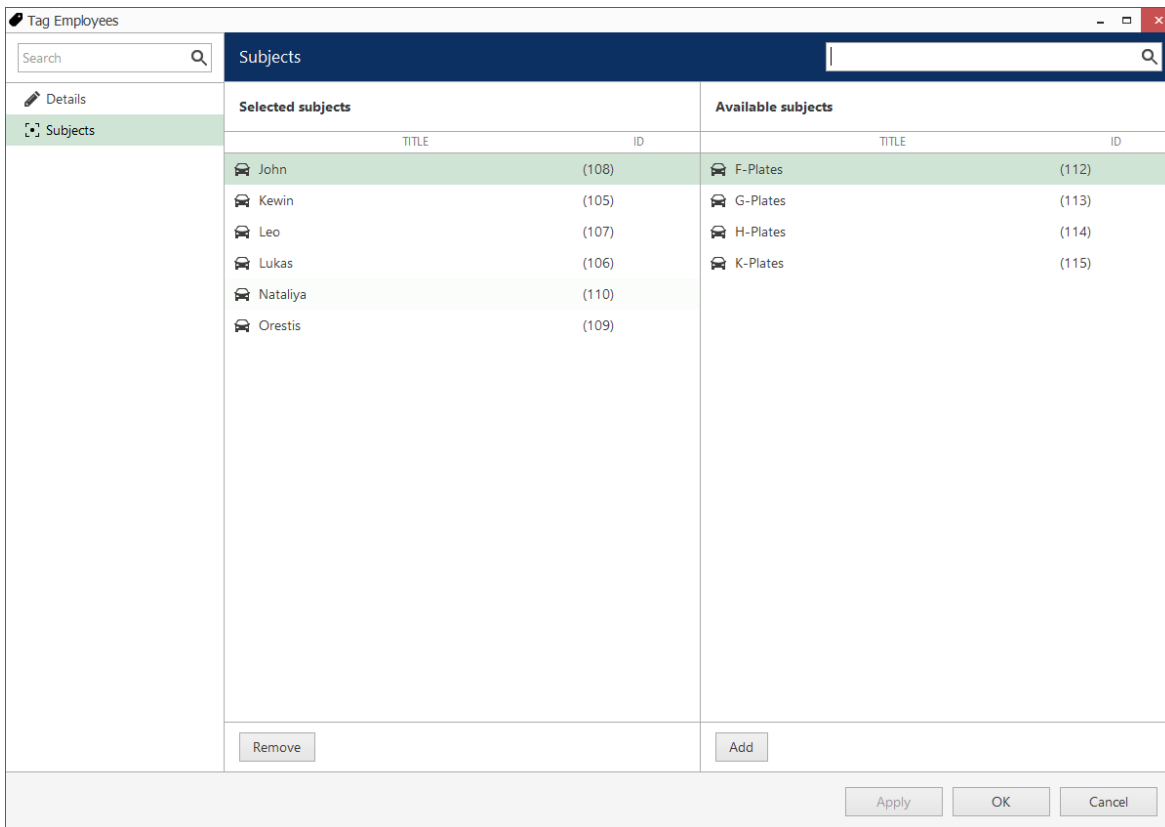


Figure 11. Assigning LPR subjects to the selected tag.

Using the group in Events & Actions

Once a tag contains the appropriate plate subjects, the group can be used by the Luxriot EVO rules engine. For example, a tag named Employees can represent approved employee plates. When a member of that group is recognized, an EVO rule can trigger a configured action such as opening a parking-lot gate or mechanical arm.

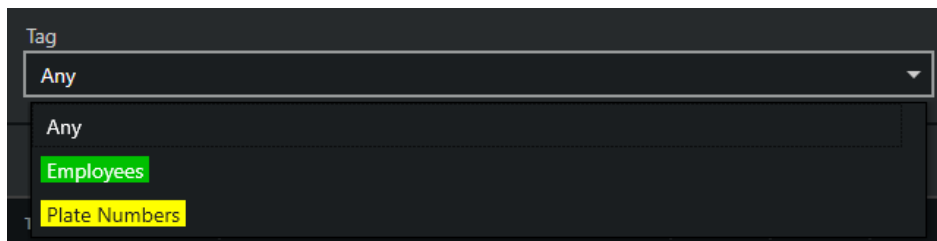


Figure 12. Example LPR tag selection in the LPR workflow.

Rules concept: The camera performs the recognition; the subject and tag configuration gives EVO a logical category that can be used for search and automation.

11. Validation Checklist and Troubleshooting

Use the following sequence when commissioning a Milesight edge LPR channel in Luxriot EVO.

- 1 Add the Milesight camera using the TS2966-X12TVPE driver.
- 2 Enable Camera-side metadata and External metadata on the EVO channel.
- 3 Enable and configure LPR on the Milesight camera.
- 4 Draw the detection region and click Add.
- 5 Enable the required LPR attribute-identification options.
- 6 Enable Metadata Transmission on the camera and save.
- 7 Restart the camera and confirm it reconnects to EVO.
- 8 Open Luxriot EVO Monitor and confirm that the LPR tab receives new results.
- 9 Optional: create LPR subjects, tags, and Events & Actions rules for automation.

If the LPR tab does not populate

- Confirm the camera is using the TS2966-X12TVPE driver in EVO.
- Confirm Camera-side metadata and External metadata are enabled on the channel.
- Confirm the LPR zone exists and LPR is enabled on the Milesight camera.
- Confirm Metadata Transmission is enabled and the camera was restarted after the change.
- Confirm the camera itself is producing plate-recognition results before troubleshooting tags or rules.

Key idea: The dedicated LPR tab depends on the complete metadata path. Video alone does not confirm that the edge LPR metadata is being passed into EVO.