

Specification Sheet

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# XProtect<sup>®</sup> LPR 2024 R1

Available on June 25<sup>th</sup>, 2024

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## Key features

### Capture

- Compatible with all cameras supported by Milestone
- Multi-lane detection with a single camera

### Recognition

- Scalable server-based recognition engine
- Supports more than 200 countries and states with dedicated optimized recognition algorithms (country modules), including full coverage for European region, US states, and Australian states.
- Generic country modules for selective regions, and generic worldwide module
- Includes an algorithm dedicated to eliminating partial detection of license plates and optimizing recognition with country modules

### Match List Management

- Unrestricted number of match lists for correlation of recognized license plates (examples: employees, guests, stolen vehicles, priority customers) or license plate styles (examples could be commercial and/or vehicles. All dependent on country plate style strategy)
- Supports custom data as complement to license plate information, such as owner details, driver name, type of vehicle

### Monitor

- Track vehicles by viewing LPR events and related video
- Enable modular camera views where license plate recognition events can be displayed together with corresponding video
- Raise alarms based on match lists matching using the alarm management function in the XProtect Smart Client

### Action

- Saves time by automating manual actions
- Events can be generated on actual recognition of plate or plate style, or match with a specific match list
- LPR events can for example control cameras, external peripherals such as parking barriers and gates or generate alarms

### Investigate and Report

- The dedicated LPR tab in XProtect Smart Client provides extensive search capability to list recognized license plates events, related video, and possible match list information
- Data drilling functions enables swift analysis of LPR events related to specific camera, vehicle identity, country, or match list (for example stolen vehicles)
- Generate LPR reports with license plate information, video thumbnails of associated video, and a license plate close-up image

### Integration options

- XProtect LPR can propagate events to third party applications integrated via the MIP SDK with a wide range of application areas:
  - Look-up of vehicles in central registers
  - Feeding tracking-, payment- and statistical applications with license plate information

## Detailed Product Features

### LPR Monitoring View Item

- A dedicated LPR monitor view item presents a combined camera view and an event list displaying recognized license plate information and plate style. The LPR monitor view item can be used in any XProtect Smart Client view
- The LPR event list provides real-time license plate information for the identified vehicle, including country (if dedicated country modules are used in the system), match with possible match lists, and complementary vehicle information defined as custom data in the match list
- LPR monitor view items can be used in independent playback in line with normal camera view items. In independent playback the event list with license plate information can be reviewed with the possibility to directly jump to a specific vehicle and playback recorded video from the associated camera
- A shortcut makes it possible select any vehicle identified in the LPR Monitor and get a listing of the specific license plate recognition events in the LPR tab

### Match List

- Central and instant management of match lists across multiple LPR servers
- Supports an unrestricted number of match lists for correlation of recognized license plates (examples: employees, guests, stolen vehicles, priority customers) or plate style aliases.
- Supports up to five custom data fields per match list as complement to license plate information, which can be used for complementary information such as owner details, driver name, type of vehicle
- Match lists may be edited in the VMS or NVR management interface, or from the LPR tab in the XProtect Smart Client
- Import and export possibilities makes it easy to work with centrally managed external or off-line lists

### Plate style recognition

- Identification of vehicles in groups based on their plate styles. A plate style is defined by plate color, format, font, and/or descriptions and plate style strategies vary from country to country and state to state.
- Identification is dependent on the detail level of countries/states chosen plate style strategy – i.e.

whether a country/state have chosen to create specific plate styles for specific types of vehicles/purposed vehicles

- Plate style aliases makes plate style recognition operator friendly. As a plate style alias bundles similar plate styles of different formats into a unified group, aka Standard, Commercial, Law enforcement etc.
- Aliases are managed through the Management Client
- List of supported countries list can be found on the Milestone XProtect LPR webpage

### LPR Tab

- A dedicated LPR tab provides overview of recognized license plates and license plate styles, and provides a link between the identified vehicle and the recorded video
- Extensive filtering functions on specific camera, vehicle identity, country or match list and time, make investigations easy with wide possibilities for analysis and data drilling
- Immediate access to related video, makes it possible to instantly review recorded video related to any identified vehicle
- Detailed and more extensive investigations of specific events can be done by launching a full playback window with time navigation for the given event. This also makes it possible to include additional cameras in the investigation and produce evidence material easily for a given event
- Built in reporting support makes it easy document recognized vehicles based on the data analysis in the LPR event list. The report is generated as a pdf report, and includes license plate and possible match list details, a video thumbnail and a close-up of the recognized license plate
- Smart Client users can manage LPR match lists from the LPR tab

### Integration with XProtect Smart Client functions

- XProtect LPR is seamlessly integrated with the XProtect Smart Client, where the availability of the XProtect LPR application tab can be controlled centrally for individual users
- Events from the recognition of an individual license plate, or a match with a match list, can be used can be used to generate alarms in the alarm manager
- In the XProtect Advanced VMS products, the events are available for the rule engine and can hence trigger any action, including control of external peripherals

### Recognition

- Scalable server-based recognition engine, where an unrestricted number of LPR servers can be used
- Supports more than 200 countries and states with dedicated optimized recognition algorithms (country modules), including full coverage for European region, US states, and Australian states.
- Generic country modules for selective regions, and generic worldwide module
- Any combination of country modules may be activated in a system, given that the licensed number of concurrent active country modules is not exceeded
- For complete list of supported countries and license plate styles, please refer to Milestone website: <https://www.milestonesys.com/supported-countries-and-styles/>

### Configuration and administration

- Configuration and administration of XProtect LPR is made as an integral part of the management interface of the XProtect VMS system or Milestone Husky NVR product it is used with
- Intuitive configuration wizard supports the system administrator through all configuration steps and provides recommendations to configuration settings.
- Snapshot driven configuration and optimization of the recognition algorithms for high recognition accuracy and optimal system performance
- Automatic validation of configuration settings against the snapshot series, where the confidence level for each license plate reading is presented and the accuracy can be confirmed by the administrator
- Possibility to import already captured snapshot series
- Access to advanced configuration settings, with the ability to verify any change against the snapshot

### System Components

- **LPR Server**  
Runs the license plate recognition engine
- **LPR Plugin for Event Server**  
Generates of recognition events based on license plate match lists
- **LPR Plugin for Management Client/Application**  
Configuration of the XProtect LPR system
- **LPR Plugin for XProtect Smart Client**  
Operational presentation layer

## Miscellaneous

### XProtect LPR 2024 R1 system requirements

The 2024 R1 LPR Smart client plugin is not backward compatible with older versions of the XProtect LPR server. Please ensure that the LPR server is upgraded **before** the client.

The minimum system requirements for XProtect LPR servers running the license plate recognition logic follow the requirements for XProtect, which are available on the Milestone Systems website: <https://www.milestonesys.com/systemrequirements/>. As the system requirements for the license plate recognition logic is processor intensive, and varies significantly dependent on the environmental conditions, camera settings and other parameters, Milestone recommends anyone installing XProtect LPR to study the guidelines in the Administrator's Guide first.

### Supported languages

The operator interface of XProtect LPR is localized to the same languages as XProtect Smart Client. The management interface is localized to the same languages as the Milestone video management software product that XProtect LPR is being used with. For details on supported languages, please refer to: <https://www.milestonesys.com/supported-languages/>.

### Supported Milestone products

XProtect LPR 2024 R1 is a XProtect add-on product compatible with all Milestone video management software and Milestone Husky products, except XProtect® Essential+.

To benefit from the full functionality of XProtect LPR 2024 R1, the latest release of the following products should be used:

- XProtect® Corporate 2024 R1
- XProtect® Expert 2024 R1
- XProtect® Professional+ 2024 R1
- XProtect® Express+ 2024 R1

XProtect Express and Professional went into maintenance mode on June 17, 2019 where their final version of these products was released as XProtect Express and Professional 2019 R2. Please use XProtect LPR for Express and Professional, released with 2019 R2 with these products.

XProtect LPR is compatible with all Milestone Husky units. To benefit from the full functionality of XProtect LPR 2024 R1, the XProtect VMS product used on the Husky unit shall be updated to the latest 2024 R1 version.

### Licensing Structure

XProtect LPR 2024 R1 is licensed through three different licenses, and follows the same principal licensing scheme as earlier versions of the product:

#### XProtect LPR Base License

The XProtect LPR Base License unlocks the full license plate recognition functionality for a single XProtect VMS system or Milestone Husky NVR, allowing an unrestricted number of XProtect Smart Clients and XProtect LPR servers to be installed on the given VMS or NVR system.

#### XProtect LPR Camera License

One XProtect LPR Camera License is needed per camera stream on which the license plate recognition functionality is to be applied. The XProtect LPR Camera License is needed in addition to the device license in the XProtect VMS or Milestone Husky system.

**XProtect LPR Country Module License**

The XProtect LPR Country Module License controls how many different recognition modules that can be active in the system simultaneously. Any combination of the more than 200 generic and country optimized modules can be used. The XProtect LPR Base License includes five country modules, and additional country modules can be purchased individually via the XProtect LPR Country Module License.



Milestone Systems is a leading provider of open platform video management software; technology that helps the world see how to ensure safety, protect assets and increase business efficiency. Milestone enables an open platform community that drives collaboration and innovation in the development and use of network video technology, with reliable and scalable solutions that are proven in more than 150,000 sites worldwide. Founded in 1998, Milestone is a stand-alone company in the Canon Group.