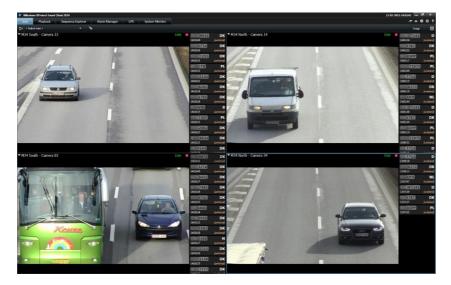# Milestone XProtect License Plate Recognition

- Recognize the power of automatic vehicle identification

Milestone XProtect® License Plate Recognition (LPR) is an XProtect add-on product that provides video-enabled vehicle identification so organizations can automate processes based on recognizing license plates.

XProtect LPR detects license plate information from vehicle number plates and links it with video. XProtect LPR supports recognition of license plates from more than 165 countries and states through dedicated optimized recognition algorithms. It is compatible with most Milestone XProtect VMS and Milestone Husky™ products.

XProtect LPR is fully integrated with the XProtect Smart Client and presents recognized license plates in real-time with the related video

Broad applicability

The ability to automatically identify and document vehicles benefits businesses and organizations in a wide range of different industries. Given its broad and universal applicability, XProtect LPR can be used in a wide set of application areas, including access control, theft prevention, payment services, tracking, business intelligence and loyalty programs.

Key benefits
- Compatible with all cameras supported by Milestone
- Track and regulate access
- Optimizes and eliminates manual processes
- Supports a wide range of different application scenarios

Key features
- Multi-lane detection with a single camera
- Supports more than 165 countries and states with dedicated optimized recognition algorithms
- Unlimited number of match lists for correlation of recognized license plates, e.g. employees, customers, stolen vehicles
- Track vehicles by viewing LPR events and enable modular camera views where LPR events can be displayed together with corresponding video
- Raise alarms based on match lists using the alarm management function in the XProtect Smart Client
- LPR can propagate events to third-party applications integrated via the MIP SDK with many application areas
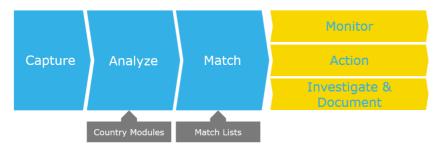
Want to know more?

Read more about XProtect LPR and find out which Milestone products its compatible with, on Milestone website:

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Increase work productivity

Providing an automated complement to the physical security XProtect LPR improves almost every step in the daily security operation; from real-time monitoring, to automatically initiated actions such as gate control, to facilitating faster investigations and complete documentation.

The principal steps in XProtect LPR include capturing live images, image analysis and matching recognized license plates

Capture

XProtect LPR is compatible with all cameras supported by the Milestone XProtect VMS or Milestone Husky NVR product used. This means that you can select cameras based on budget and required recognition reliability. Milestone LPR supports multi-lane detection within one camera view.

Analyze - better business analytics

XProtect LPR supports more than 165 country and state optimized modules with dedicated recognition algorithms. It allows any combination of country modules to be activated in a system.

Match license plates

The true value of video-enabled LPR is uncovered when license plates are matched with predefined lists. The match lists can be customized and individually created for different uses. Lists can be used to detect stolen cars in city surveillance, recognize expected trucks in a transportation hub or identify vehicles belonging to employees.

The centrally managed match lists serve two primary purposes: 1) trigger different types of events and actions, and 2) enrich the information presented together with the license plate information in real-time and in reports. XProtect LPR supports an unlimited number of match lists.

Supported countries

XProtect LPR supports 165 countries. For a complete list of supported countries and license plate styles, please refer to the Milestone website:

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Generic modules

Besides the country optimized recognition modules, XProtect LPR supports a set of generic modules:

- Australia
- EU-zone
- United States
- Generic worldwide

These generic modules offer a broader, but slightly less accurate recognition

Reading complex plates

Using the country-specific modules complex plates are read with high recognition rate. Complex plates include multiple lines, bi-directional information, graphical symbols and low-contrast color combinations.

Other recognition modules

In addition to the license plate modules XProtect LPR also supports container and dangerous goods management recognition.
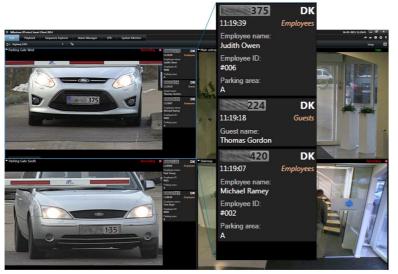
Custom data

As a part of the match list definitions, XProtect LPR allows for five custom information data fields as a complement to license plate information. These custom data fields can, for example, be for information such as owner details and vehicle type.

The custom data field is presented together with the license plate information in the LPR monitor function and in the XProtect LPR report.

Monitor – keep track of vehicles in real-time

XProtect LPR can help reduce the cost and time associated with managing parking subscriptions, access control and evidence gathering for law enforcement. XProtect LPR operates with a monitor view item that presents a combined camera view and an event list displaying recognized license plate information. The LPR monitor view item can be used in any XProtect Smart Client view.

The XProtect LPR monitor function provides a real-time presentation of vehicle identification details and possible match lists information

Action- trigger events

A primary purpose of the match lists is to generate events that can drive different actions such as gate control, alarm generation or triggering of external systems. The benefit of this is both saved time and more consistent handling. This means that XProtect LPR can, for example, manage parking, control payment or be a powerful tool for law enforcement and traffic control.

Investigate

XProtect LPR makes it easy to find and document detected vehicles. A combined search and filtering option in the dedicated LPR tab in the XProtect Smart Client makes it possible to search across multiple cameras, countries, specific match lists and partial wildcards. With the instant playback function, XProtect LPR can instantly validate incidents and alarms. The product also provides direct access to further LPR details.

Instant investigation

The XProtect 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 play back recorded video from the associated camera.

A shortcut option makes it possible to select any vehicle identified in the LPR Monitor and get a list of the specific license plate recognition events in the LPR tab.
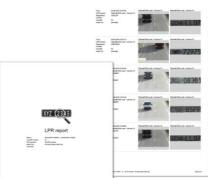
A framework for easy integration

As an integral part of Milestones XProtect VMS suite, XProtect LPR may be integrated with external license databases and systems via the Milestone Integration Platform (MIP) API. This means that individual license plate readings, for example, can be looked up in central domestic number plate registers, or a fuel pump can be stopped if a vehicle is included in a "black-list" match list.
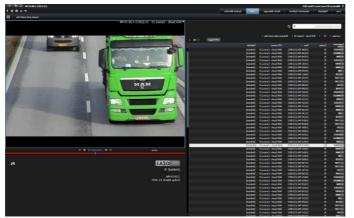
Document with reports

Using the search and filtering functions in the LPR tab, it is possible to generate an evidential report covering the specific set of LPR detections.

The XProtect LPR report includes license plate information, video thumbnail, license plate close-up and match list details for each license plate entry.

The LPR event list provides real-time license plate information for the identified vehicle, including country, possible match lists and complementary custom data in the match list

Easily improve accuracy and performance

To simplify configuration and to optimize the overall performance and recognition rate, XProtect LPR includes a snapshot-driven configuration wizard. Based on a representative set of real-life reference snapshots and a manual validation process, the system applies a recommended configuration. This configuration is optimized for specific environmental conditions and provides optimal recognition accuracy and performance.

XProtect LPR is extremely easy to configure thanks to its snapshot drive configuration wizard, where the system auto-configures itself based on manual confirmation of actual recognitions and recognition confidence levels

Extensive documentation

Extensive documentation provides guidance about which environmental factors to consider and how to optimize both the physical installation and the software configuration. It includes a variety of illustrations and is available in 14 languages.

Milestone Systems is a global industry leader in open platform IP video management software, founded in 1998 and now operating as a standalone company in the Canon Group. Milestone technology® is easy to manage, reliable and proven in thousands of customer installations, providing flexible choices in network hardware and integrations with other systems. Sold through partners in more than 100 countries, Milestone solutions help organizations to manage risks, protect people and assets, optimize processes and reduce costs.

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