iRecord Data Server

License plate analytics and data mining system (iDS-104XSC)

Powerful High Performance LPR Data Server

Streaming Networks has developed a suite of data analytics for license plate data captured by its LPR products and bundled as iRecord Data Server (iDS). iDS is a multi-user, multi-system back office for LPR data storage, retrieval and live monitoring. It has a built-in sophisticated hotlist management support allowing multiple and different types of hotlists and pattern lists. LPR data from one or more LPR units is funneled to iDS where it gets compared in real time with a list of wanted plates (hotlist) prior to storage. Upon a successful match, an alarm is generated in the monitoring window showing the plate image, type of violation and any action, if required. Target plates are matched through exact, partial and fuzzy matching modes, raising alarms even when the user input contains incomplete license plate information. Hotlist matching can be restricted through geofencing as well.

iDS has a simple, yet intuitive and easy to use interface requiring no prior knowledge or training to operate. View system statistics, search for suspect vehicles, create and review reports, view live reads all through this interface. View details of selected captures, quickly edit a plate in case of a misread, view selection on a map, or add it to a hotlist for future alerts using this simple interface. Export analytics and search results in the form of PDF, images and Excel file.

iDS analytics automatically links a license plate read to a recorded video link for quick verification and investigation. Data privacy is supported through restricted access and defining retention time and deletion rules. It has multiple-level user access control and activity tracking capabilities. An audit report for each user can be generated.

Enhanced Data Search

iDS allows data searching on the basis of date and time, complete or partial plate numbers, hot numbers, system names, agencies and geographic locations. You can also search associated videos of plate captures, unread and unrecognized plates.

Live Monitoring

Provides real-time monitoring facility of multiple LPR Systems and their associated hot plate hits in real-time. The monitoring windows are designed to adapt to wide ranging uses from a small laptop to high definition monitors in a control room. Users can select the systems from currently logged in system-list, and view them in appropriate grids having 1x1, 2x2 or 3x3 panes.

Hotlist and Alert Management

iDS offers a variety of hotlists (Red lists, Alert lists, White lists, Pattern lists, Common or Scratch pad lists) to meet diverse requirements. You can upload, add, edit or download hotlists with simple clicks. On encountering a hit, iDS provides color coded visual indications, beeps and popups in real-time. It features system and user defined alerts, comments, and email messages on hits, ensuring that all the necessary information is available to the operators to help formulate a suitable response. Hotlist features includes:

- Multiple hotlists of up to one million entries each
- Email alerts with vehicle and plate images to multiple email addresses
- Exact and partial matches
- Wildcard pattern-based hotlists for partially known numbers
- Filtering hot matches on the basis of geofencing

Data and Audit Reports

You can generate elaborate search and analytics reports in pdf format, store charts and data in Excel format. You can also generate system statistics reports for days, weeks, months and years. In addition to this, support for audit reports of system wide searching is available to aid supervision of users.

Plate Recurrence Analysis

Calculates the number of times a plate appeared in the field of view of an LPR camera. This data can be used to identify vehicles visiting frequently an area of interest. Queries can be refined by a count set, which can be further filtered by a plate number, hotlist, date, time, location, system name and agency name. Multiple systems can participate in a query.

Connected Events Analysis

A common vehicle(s) involved in a crime at multiple locations can be identified by this analytic. LPR data collected at crime locations, up to 10 locations can be specified, to produces a list of plate numbers that appears in the specified multiple locations. Search can be filtered by excluding security, LEA and employee vehicles. Analytic produces details of the vehicle(s) along with its video as it entered and exited the locations.

Convoy Analysis

LPR data collected at selected locations can be used to discover vehicles found travelling near the vehicle of interest on one or more occasions. Analytic can be customized to target a single vehicle or an entire fleet with maximum follow and precede time around the vehicle of interest. Search can be filtered by excluding security, LEA and employee vehicles. Analytic produces details of the vehicle(s) along with its video.

Time-lapse Analysis

This analytic computes how long a vehicle has been on the premises by using the timestamps difference between when the vehicle was seen first and then when it left the premises as captured by entry and exit LPR cameras, respectively. Time-lapse analytic can be customized to target vehicles that left within a specific time bracket at one or more locations. Analytic produces details of the vehicle at entry and exit as it appeared in the field of view of the cameras.

Customer Visit Analysis

This analytic generates visiting trends of customers and computes their number of visits and length of stay on daily and cumulative basis. Visits duration can be filtered by a specific block of time. It also computes customer in-flow and out-flow distribution on hourly, daily and larger block time. Analysis can be filtered by excluding security, LEA and employee vehicles.

Vehicles on Property

It generates accurate hourly profile of vehicles parked on the property for any calendar day. Identifying peak visiting hours and fine tuning the parking policies are the outcome of this analytic. Search can be filtered by excluding security, LEA and employee vehicles.

Zip code Mapping

Collected LPR data can be filtered using vehicle registration zip code. It generates charts and tables of customer distribution by zip codes, counties and cities of residence. It can also plot heatmap to show geographic density of visitors' base. Search can be filtered by excluding security, LEA and employee vehicles.

Smart Video Recording and Search

When operating in association with our LPR systems, iDS offers search and download facility of color video clips in association with plate captures and hits. To account for all the traffic, video clips of un-read and un-recognized license plates can be retrieved. In addition, time-based search of continuous recorded video is also possible.

User Access Roles

Predefined access levels can be created for System administrators, agency administrators, agency users, hotlist managers and data analysts.

Multiple System Network

An iDS server can be easily connected to other iDS servers to facilitate cumulative searching. Search queries can also be run to include locally stored data on LPR systems deployed in the field.

Integration with 3rd party Video Management Systems

iDS can be integrated in a non-invasive fashion with 3rd party Video Management Systems (VMS) providing VMS operators with complete LPR functionality. It is capable of sending LPR records to Bosch® VMS, Cisco® kinetic for cities platform and Genetec® VMS using either streaming or file transfer protocols.