



SEETEC CAYUGA LPR MODULE

Automatic Number Plate Recognition with SeeTec Cayuga

The automatic recognition of number plates in video streams enables a wide range of applications such as the management of driveways, parking zones and loading bays. Due to a variety of features and fine-grained configuration options it can be adapted to the customer's specific needs to support his processes – this saves time and costs.

■ THE CHALLENGE

Managing driveways and parking zones can be a very time-consuming task requiring a lot of manpower. Some examples: During rush hours employees' cars cause congestions at the driveway, suppliers want to access the premises with trucks and need a loading or parking position, customers appear at the factory gate without previous registration.

Some of those situations can already be handled more efficiently by using traditional video technology. However, automatic number plate recognition systems can support a customer's processes even more.

■ BENEFITS AND FIELDS OF APPLICATION

The classic use case of the SeeTec Cayuga LPR Module is the management of driveways and parking areas. In these scenarios automatic number plate recognition supports and partially automates processes by triggering subsequent actions, which significantly takes the load off the security staff and saves costs in the end. The system can even be utilised and operated across several locations. In addition, the monitoring of all detection events makes it possible to find out and to track visually which car has left or entered the premises at which time.

But the range of applications exceeds sheer security applications. Thus, the SeeTec LPR solution is used by a car rental company to visually record time and date of car returns even outside regular business hours. Furthermore SeeTec Cayuga LPR can be used for marketing purposes: In this case the client is interested in the percentage of customers coming from particular countries or regions. With this information he is able to optimize the geographical targets of his marketing campaigns.

■ FUNCTIONALITY

The SeeTec Cayuga LPR Module is a server-based extension module for SeeTec Cayuga to recognize number plates automatically in stationary and moving traffic. It can read international number plate formats even with Arabic or Cyrillic characters – depending on traffic density and speed for up to eight lanes per server. All configuration parameters for the LPR Module can be set directly in the SeeTec Cayuga user interface. The detection of number plates can be run continuously or trigger-based (e.g. using induction loops).

In most cases trigger-based recognition should be preferred as it minimizes the server load, enhances the detection quality and provides additional performance to cover further lanes. Basically the SeeTec Cayuga LPR Module can be used with any IP camera, which is supported by SeeTec and available in the system. For optimized detection rates even under poor lighting conditions particular LPR cameras (IP or analog cameras with video encoders) can be used.

All detected number plates are recorded in a database with the corresponding image data. Furthermore, number plates can be registered in a master database with individual attributes such as company or driver name. They can also be assigned to customizable authorization groups (so-called “lists”).

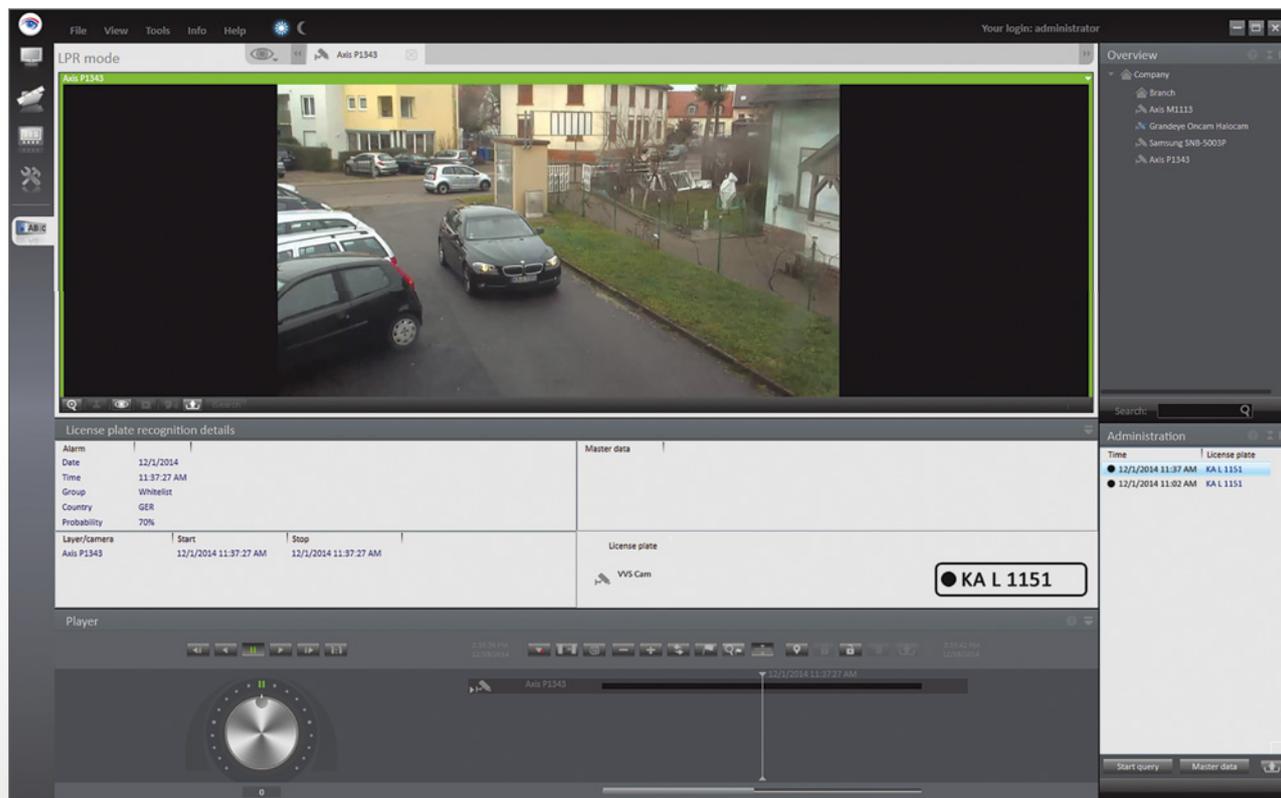
Depending on which authorization group a number plate belongs to, particular rights can be granted or events can be triggered. If, for instance, a car with a registered and authorized number plate approaches at the driveway (e.g. an employee’s car), the gate will open and the car will be allowed to pass.

If the number plate is not known to the system, an alarm recording will be started and a voice connection to the doorman could be established by SeeTec Cayuga using a SIP-based intercom unit.

In addition to access authorizations, which are valid indefinitely, time patterns can be created and one-time or recurring authorizations (“tickets”) can be assigned.

When for instance a customer visits the company, an electronic ticket can be created within SeeTec Cayuga, which is valid for the duration of his visit and allows him to use the company’s parking zone – but only within business hours (time pattern).

Furthermore the SeeTec LPR Module allows the import and export of CSV-based data as well as the automatic exchange of master data and detected number plates with third party applications based on XML technology. Thereby detected number plates can for instance be handed over to an access control system.



User Interface of the SeeTec LPR Module