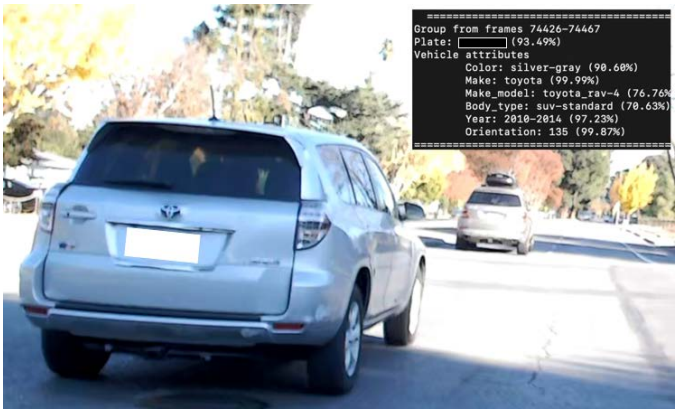
Automated License Plate Reader (ALPR)

Homeland Security
Science and Technology

LICENSE PLATE READING

The world's largest passenger vehicle market resides in the United States with 250+ million vehicles on roadways, each with a unique license plate. The automated license plate reader (ALPR) technology captures images of license plates and allows law enforcement agencies to identify and compare plates against those of cars driven by people suspected of being involved in illegal activities.

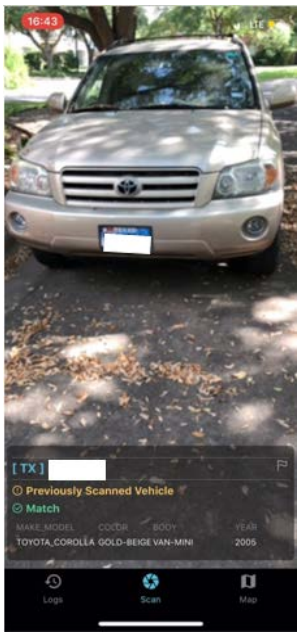
The Department of Homeland Security's (DHS) Science and Technology Directorate (S&T) is partnering with a small business industry partner to design, develop and test the *DeepVIEW* ALPR solution that can be easily deployed in patrol cars and on mobile devices. Testing will expand beyond license plate reading to include vehicle description (e.g. color, make, model, body type, year, etc.) for faster visual identification by law enforcement officials. The *DeepVIEW* ALPR solution is designed to be automated, fast and inexpensive with both mobile and fixed deployment using smartphones and other low-cost hardware.



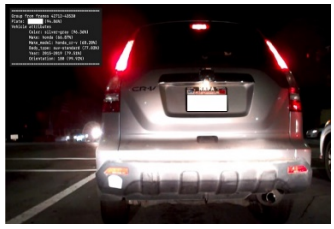
DeepVIEW ALPR prototype technology demonstrates high accuracy in plate number, vehicle make and color.

GOVERNMENT AND INDUSTRY INNOVATION

DeepVIEW ALPR system combines high-speed cameras and sophisticated software to convert license plate images into data that can be compared with information from alerts, lookout notifications and other databases. The industry performer, Synthetik Applied Technologies, will enhance and refine their *DeepVIEW* ALPR prototype software incorporating feedback from the 18 county sheriffs in the Texas Sheriffs Regional Alliance.



Synthetik will provide off-the-shelf dashboard and cellphone camera adaptor hardware to demonstrate integration of ALPR software and cloud computing for operational test and evaluation. The DeepVIEW system will allow law enforcement to link the ALPR data capture with other regional databases to rapidly identify and verify a vehicle of concern.



DeepVIEW Mobile App confirms license plate with vehicle's year, make, model and color in both day and nighttime conditions

EVALUATION AND COMMERCIALIZATION

Approximately twenty (20) *DeepVIEW* ALPR dashboard and mobile prototypes will be deployed across 18 Texas county sheriff's departments in two (2) rounds of development and operational evaluations. Performance suitability will be assessed during these in-field evaluations to ensure the technology provides the desired functionality. The cost of the system is low, as it uses off-the-shelf hardware for the self-contained dashboard mounted camera system. Additionally, the ALPR software can be deployed on devices that officers already carry (e.g. smartphones) and can be rolled out simply by installing an App.

SYNTHETIK APPLIED TECHNOLOGIES

www.synthetik-technologies.com

A breakthrough research firm aimed at creating high-impact technologies, Synthetik looks to bridge the gap between purely theoretical research and real-world applications. For the *DeepVIEW* ALPR capability, Synthetik is applying artificial intelligence, deep learning, and pattern recognition to the problem of automating license plate reading.