FF Group ANPR App
on Hanwha cameras

for sales and product managers

Hanwha Techwin

What is FF Group ANPR App for Hanwha cameras

FF Group ANPR App is application for Number Plate Recognition on Hanwha cameras based on Wisenet5 series processor that helps for:

- Automated Vehicle Access Control to the closed perimeter
- Traffic Control Management at different speed levels

SUPPORTED REGIONS AND COUNTRIES	EU, Israel, Turkey, CIS, Taiwan, Vietnam
COMING SOON	Canada, Australia, Indonesia, Malaysia, Australia, SAR, Kenya, Tanzania, Bolivia, Brasil, Argentina, India
NEXT STEPS IN ROAD MAP	USA, Middle East, Rest of Africa

The ANPR Solution

Automated Number Plate Recognition Application for Vehicle Access Control with any traffic pattern and access level; also is suitable for traffic control management and traffic rules observance at any roads.

ACCESS CONTROL

Vehicle Access Control for any closed perimeter;
White & Black List Management;

Automated Barrier Management;

Vehicle Count with number plate record;

Search and results export

TRAFFIC CONTROL

Vehicle Movement Direction on the roads at speeds up to: 160 km/h on 1 lane / 80 km/h on 2 lanes

Notification on listed vehicles
List of interest management

Store Vehicle with number plate record and image
Search and results export

ANPR metadata is sent to Wave VMS server and/or to any other 3rd party software via open API

The ANPR Solution: What You Need

1 BASIC SOLUTION

Hanwha camera with pre-installed **FF Group ANPR App**

3G/**4G** Internet connection

2 ADVANCED SOLUTION

Hanwha camera with pre-installed **FF Group ANPR App**

3G Internet

Integration with **WAVE** // integration with alternative software/ VMS / ACS / police server - via open API

Selling Points - Why To Choose

CUSTOMER BENEFITS

- Highly accurate ANPR with regular free updates

- Friendly web-interface for camera ANPR app fine-tuning
- Interface available in a number of European languages

- ANPR on camera
- ANPR data is sent to integrated software ready-to-use

FACTS

- > 95% ANPR accuracy by day and night
- Semi-annual releases with updated ANPR library
- Onboard Highspeed recognition for Urban solutions

- Black & White List Management (up to 2K each)
- Relay / Barrier Management with no control modules (single camera - single barrier)

- Integration with Wave VMS enables video search by number plate
- Integration with NumberOk META for avg. speed control and data aggregation from multiple cameras

COMING IN Q2 2019

One click ANPR setup' button | Multiple Barrier Management with no control modules (according to common white / black lists) via NumberOk META | Black and white List 10K each

Applicable Cases and Industries

ACCESS CONTROL

CASE 1

Simple solution for single entry / exit (parking garages, retail parking spaces)

CASE 2

Solution for multiple entries / exits to / from the perimeter (NumberOk META for multiple gates control)

TRAFFIC CONTROL

CASE 3

Vehicle counting for municipal police or city council / marketing agencies

CASE 4

Traffic violations alerting to police

CASE 5

Multiple deployed sites (Safe city, Petrol stations, Parking spaces, etc.)

CASE STUDIES

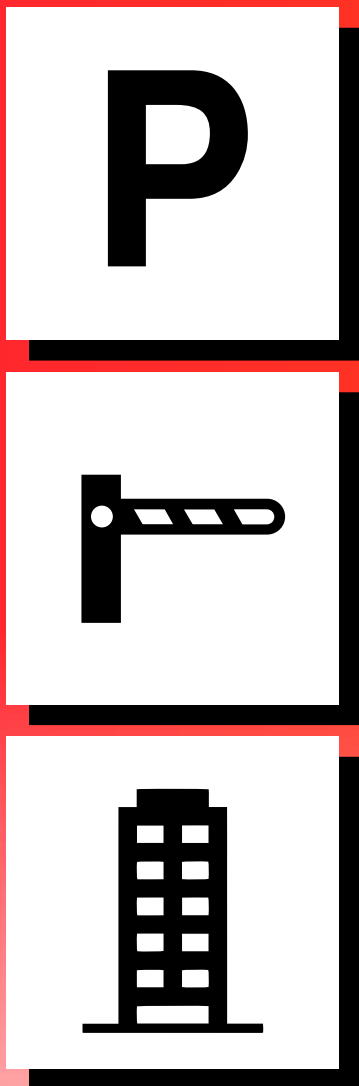**FF GROUP**
ANPR Application
on Hanwha cameras

CASE 1.

Parking spaces (single-level)

CUSTOMER / COMPANY TYPE:	**PARKING SPACES, RESIDENTIAL AREA, CONDOMINIUM**
CUSTOMER NEEDS:	automated access control to parking in parking spaces, residential area or condominium.
DESCRIPTION:	Hanwha cameras with FF ANPR application (out-of-box) installed at entry/exit to/from parking space, residential area or condominium. The system detects number plates, provides Access Control via automatic opening of external devices.
CUSTOMER BENEFITS:	• automated access control according to white-lists, • prevent banned / non-authorised vehicle entry and parking at individual tenants' parking places.

CASE 2.

Parking spaces (complex-level)

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CUSTOMER / COMPANY TYPE:	**PARKING SPACES, LOGISTIC CENTERS**
CUSTOMER NEEDS:	automated access control to parking in parking spaces/logistic centers, alert on improper (not in a due place) parking, control over individual tenants parking
DESCRIPTION:	The system is installed at entry/exit to the perimeter of the parking spaces, logistic centers: ● FF Group ANPR based on **camera-to-camera technology** for single-level parking garage. ● ANPR camera and data transfer to server-based **NumberOk** for multi-level parking garage or **Limbio Primm web-service**. The system detects number plates, provides Access Control, allows entry to a particular level (parking).
CUSTOMER BENEFITS:	● automated access control according to white-list, ● prevent banned / non-authorised vehicle entry and parking at individual tenants' parking places, ● data analysis and access control management to the territory.

CASE 3.

City sensors

Police

CUSTOMER / COMPANY TYPE:	**MUNICIPAL POLICE**
CUSTOMER NEEDS:	real-time data and alerts for criminal and civil offence prevention, traffic control, alerts on traffic rules violation.
DESCRIPTION:	The system detects number plate in 2 points at the highway and measures average speed for further police alerting about the violation for crime prevent / immediate actions.
SOLUTION TO MEET CUSTOMER NEEDS:	**Hanwha cameras with FF ANPR application** (out-of-box) installed at entry / exit to / from the city or town, key-point intersections, key points for speed control; **NumberOk META** (server-based, for police) or **Limbio Primm web-service** (for municipal authorities) for data analysis and push-notifications/sms messaging to police patrols' Android-based mobiles / tablets / PC onboard police cars.
CUSTOMER BENEFITS:	• identify violators and prevent crimes / violations, • unloading of 'bottlenecked' roads and fighting traffic jams.

CASE 4.

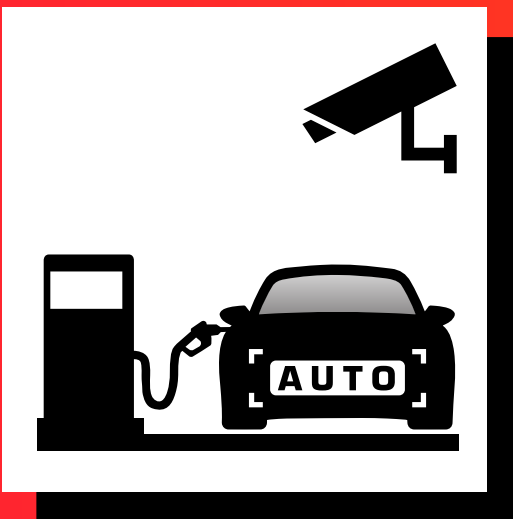# Violation alerting for crime prevent

CUSTOMER / COMPANY TYPE:	**CRIMINAL POLICE, LOGISTIC AREAS**
CUSTOMER NEEDS:	Real-time data and alerts for criminal and civil offence prevention, traffic control, alerts on traffic rules violation.
DESCRIPTION:	The system detects number plate on public lane and transmits the signal to police car for the crime prevent / immediate actions.
SOLUTION TO MEET CUSTOMER NEEDS:	Hanwha cameras with FF ANPR application (out-of-box) installed at entry / exit to / from the city or town, key-point intersections, key points at logistic areas. NumberOk META (server-based, for police) or Limbio Primm web-service (for logistic areas) for data analysis and push-notifications/sms messaging to police patrols / duty at logistic area checkpoint (Android-based mobiles / tablets / PC onboard police cars / duty checkpoint).
CUSTOMER BENEFITS:	• identify violators and prevent crimes / violations.

CASE 5.

Petrol Stations

CUSTOMER / COMPANY TYPE:	**PETROL STATIONS (multiple deployed sites)**
CUSTOMER NEEDS:	Enhanced security, immediate alerting of banned number plates, additional information is needed on visitors quantity, visitors type (repeated/new).
DESCRIPTION:	The system provides secure, monitors and analyses traffic at all Petrol Stations for planning marketing activities throughout the network/group
SOLUTION TO MEET CUSTOMER NEEDS:	**Hanwha cameras with FF ANPR application** (out-of-box) installed at entry and 30-50 m to the entry along the road at which the Petrol Station is located, **Limbio Primm web-service** for **ANPR** data processing from cameras and further analytics.
CUSTOMER BENEFITS:	• not allowed banned number plates, • collect and analyse all 'number'-related data - by vehicle quantity hourly/weekly/monthly, • queuing alerts and statistics about queuing throughout the network, • frequency and quantity of the repeated clients' visits (loyalty rate), etc.

Technical details
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How it works

Please see, how it works

https://www.youtube.com/watch?v=8onmhkmk07E

Useful links

🛠 Technical site for

https://sites.google.com/ff-group.org/hanwha

📋 License request form

Demo licence inquiry

✉ Support contacts

Support web inquiry

or

hw.support@team.ff-group.org

About FF Group

FF Group offers an out-of-box intelligent security AI solutions on the **EDGE** (on camera processor) that supports smart city and parking concept projects, LPR software embedded into **any IP camera** and **R&D** on demand.

FF Group implements a range of unique, smart and cost-effective solutions built on vehicle plate, **make and model recognition technology** and situation analysis (cloud analytics), «**camera-to-camera**» technology, etc. The solutions are based on deep Front Edge Recognition & Computation expertise, many years of our developers experience in data science, huge accumulated datasets, own mathematical approaches and deep learning.

The company develops its own unique algorithm of image recognition software for **PC**, **VP**, **ARM** - and **GPU** - based platforms. Sales and technology partners of FF Group operate in **more than 30 countries**.

Contact us

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