

# **NEC's leading-edge Image Recognition Technology**

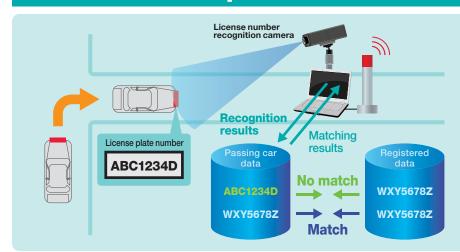
# **Automatic Number Plate Recognition Solution**



NEC has developed the automated and advanced entry management system with automatic number plate recognition and matching solution for vehicle identification through Optical Character Recognition (OCR), a technology it has developed over many years of experience.

Protecting customers' security environment through highprecision video surveillance.

# How the solution works? [In the case of License Plate Number Recognition]



#### Features

- Backed up by a rich deployment experience within Japan and a proven excellence in recognition capability and accuracy.
- Recognizes license plate images taken using the license plate recognition camera.
- An alarm is sounded off when a vehicle having a license plate number not listed in the registered data base is detected.
- License plate numbers detected by the system are recorded in the logs and can be searched and used for later analysis.
- \*We can also create a work application program for customers upon

# **Application Case 1. Vehicle Behavior Monitoring Solution**

Possible through NEC's advanced image recognition technology

Measures speed of vehicle and captures over-speeded as "RED REGULAR CAR of #AB1234"

Virtual Tripwire

Trigger for Timer of speed measurement

Virtual Tripwire

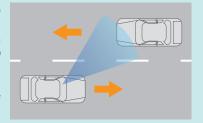
Trigger for speed measurement

Wide-view Camera

 Recognition from car-mounted cameras and LPR engine

Mounting the camera and recognition engine in patrol cars enables real-time license plate recognition and matching while on the road.

Able to capture license plate numbers of fast-moving oncoming vehicles



### And more differentiators

- Uses object recognition technology to automatically detect suspicious driving, such as zigzag driving and driving in the wrong direction, and entry into restricted zones.
- Enables identification of vehicles from motorbikes and persons.

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# **Application Case 2. Container Number Recognition Solution**

NEC has also realized the recognition of container numbers on container trucks.

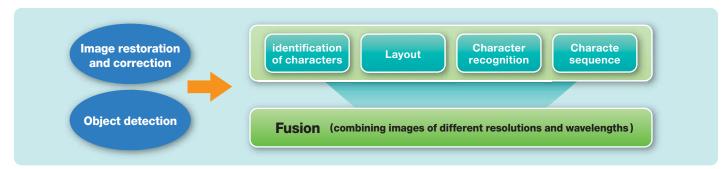
Recognizing container numbers in addition to license plate numbers further increases accuracy of vehicle identification.

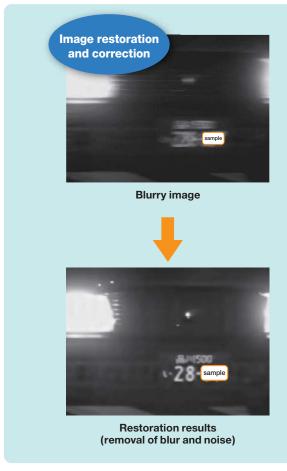
- Since container numbers are not written on a fixed location on containers, the system first detects the container number on the container.
- If the container number is written on more than one location on the container, the system carries out matching to determine if they are the same or not.
- Matching with a blacklist or a whitelist is also possible depending on customers' use requirements.

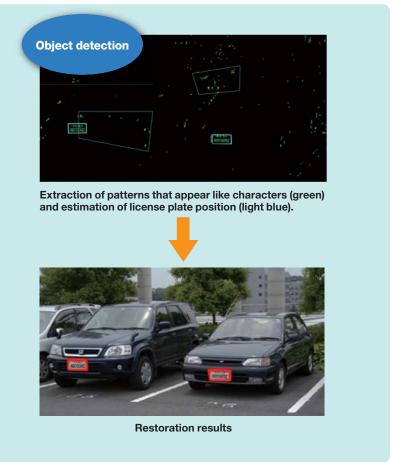


# License Plate Recognition technology / Detection, extraction, and character recognition

NEC's propriety technology enables rapid and accurate character recognition, realizing a very high recognition rate.







## NEC Hong Kong Limited

Tel: +852 2369 0335 e-mail: solutions@nechk.nec.com.hk Website: www.nec.com.hk

#### NEC Asia Pacific Pte Ltd

Tel: +65 6278 1818 e-mail: public\_safety@nec.com.sg Website: www.nec.com.sq

#### NEC Latin America S.A.

Tel: +54 11 4010 6000 e-mail: publicsafety@nec.com.ar Website: www.nec.com.ar

#### NEC Europe Ltd.

Tel: +44 1223 468000 e-mail: info@emea.nec.com Website:www.nec-itsolutions.com/

## NEC Corporation

Tel: +81 3 3798 1591 e-mail: info@publicsafety.jp.nec.com Website: http://www.nec.com/