iOmniscient

high iQ surveillance

Data Sheet

IQ-LPR CAR PARK

IQ-LPR is iOmniscient's License Plate Recognition System. The system uses an intelligent, multi-image, neural network to recognize vehicle license plates and has a very high degree of accuracy. It will identify and return the alphanumeric characters in any image or part of the image specified. It can also handle plates of many colors from many countries.

The system will identify a vehicle when it approaches an entry point in the car park. It first checks to ensure that the vehicle is of the authorized size (eg car rather than a truck). Next its Number Plate is read and can be checked against a vehicle database. Authorized vehicles can be permitted to enter. Vehicles on a "black list" can be refused entry.

Features

• To permit entry the system can activate a dry contact relay switch or provide information via an XML string.

• Accuracy:
When the vehicle approaches up to five images of the vehicle are used to do the identification. The system knows that all five images are for the same vehicle. If the numbers for the five images are different (which can happen if the plates are not easy to read due to dirt on the plates, poor lighting or other factors), this is highlighted to the operator for manual assessment.

Languages currently supported are:

• English

• Chinese

• Arabic

• Russian

Multiple languages are supported simultaneously

Requirements

• The characters in the image must be at least 20 pixels tall to be recognized. The image size from the camera must be such as to provide the necessary resolution.

• If a 1xCIF camera image is available the camera will need to be fairly close to the vehicle to achieve the 20-pixel size required.

• Mega-pixel cameras can be used to allow the camera to achieve the same resolution from a greater distance.

• The camera used can be a normal colour camera as long as there is sufficient lighting to see the image clearly. Alternatively Infra Red (IR) cameras can be used.

• As with all iOmniscient systems the camera can be an analog camera or an IP camera which provides an MJPEG image or a compressed image (e.g. MPEG4) which can be decompressed to MJPEG.

• The camera should have a sufficiently fast shutter speed to ensure that images received are not blurred. Preferred minimum shutter speed is 1/10,000th second.

• For large systems with multiple cameras the LPR identification algorithm must be run on a separate server from the detection algorithms, which may in fact be distributed. Unlike all the other IQ systems, the LPR algorithm is licensed using a dongle.

• Multiple character sets can be supported simultaneously on one server using a single license. This is useful for sites where

plates from several countries are common, e.g. where both Arabic and Latin character sets are expected. This is achieved by running two recognition engines with the primary one handing unrecognized plates to the secondary engine.

Supported countries are listed below. Note: Plates can vary even within a country. Please confirm specific information with iOmniscient for every project.

Europe

General European
Albania
Austria
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Cyprus
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Italy
Latvia
Liechtenstein
Lithuania
Luxembourg
Macedonia
Malta
Moldova
Monaco
Netherlands
Norway
Poland
Portugal
Romania
Russia
Serbia and Montenegro
Slovakia
Slovenia
Spain
Sweden
Switzerland
Turkey
Ukraine
United Kingdom

Middle-East / Africa

Algeria
Bahrain
Congo
Egypt
Gambia
Iran
Iraq
Israel
Jordan
Kenya
Kuwait
Lebanon
Morocco
Mozambique
Nigeria
Oman
Pakistan
Qatar
Samoa
Saudi Arabia
Senegal
Seychelles
South Africa
Syria
Togo
Tunisia
United Arab Emirates
Yemen
Zambia

North, South and Central America

Argentina
Bahamas
Brazil
Canada
Cayman Islands
Chile
Colombia
Costa Rica
El Salvador
Martinique
Mexico
Panama
Paraguay
Peru
Puerto Rico
Trinidad and Tobago
United States
Uruguay
Venezuela

Asia

Armenia
Bangladesh
Brunei
China
East Timor
Georgia
India
Indonesia
Japan
Kazakhstan
South Korea
Macau S.A.R.
Malaysia
Maldives
Mongolia
Singapore
Sri Lanka
Taiwan
Thailand
Turkmenistan
Vietnam

Oceania

American Samoa
Australia
Federated States of Micronesia
New Zealand
Philippines