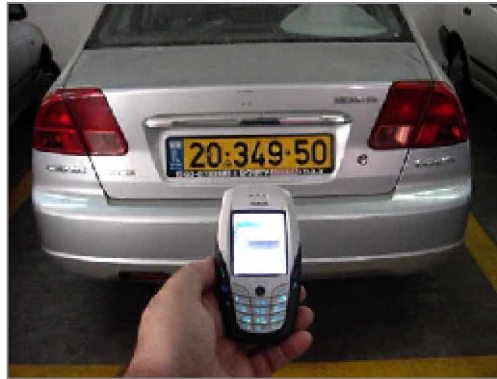


## Mobile Phone Licence Plate Recognition

**Zamir Recognition Systems** and **Target Advanced Webs** have developed a software package for recognizing images of vehicle license plates captured by mobile phone/PDA.

The application consists of two main parts:

1. A local application running on a camera equipped mobile phone.
2. A server based Internet application that can be accessed from any mobile phone/PDA or PC with an Internet connection.



### The Mobile Phone

The local application is compatible with most standard GSM cellular phones that have GPRS connectivity, J2ME capability (Series 60 and up) and a camera. (To check whether your mobile phone is suitable for our application please [contact us](#)).

- The local application downloaded by the user as is any other J2ME application or game.
- The user navigates through the various application options via easy-to-use menus.
- The user snaps a picture of the vehicle from within the application.
- The picture is automatically sent to the server where the image analysis and recognition is done
- Within seconds, a reply is sent back to the end user (the speed of the reply is dependent on the GPRS service provider).



Nokia 6600

### Server Application

On the server, a dedicated application receives the captured images. It performs the recognition process, checks the data against the application database and sends back an appropriate message to the end-user.

The application can be a simple “authorized/not authorized” type or it can involve a transaction, such as entry to a national park. The message is defined according to the customer’s application. For example, “*Vehicle RJ-45-GS is not authorized to enter*”, or “*This car is a wanted car*”.

All transactions are documented on the server for later inspection by the user or administrator.

**Option:** where the location of the vehicle or event is required, a phone or a PDA with GPS capabilities may be used. In this case, the location will also be saved on the server.



Administration of the Server application can be done from any Internet browser. Here authorized users can:

- o manage the vehicle database
- o re-define database lists
- o generating reports
- o review captured images

The Server Application can be on our server or installed on the customer’s. The server should be protected with a suitable firewall and have an appropriate back-up routine.

### Potential uses:

1. Traffic inspectors can issue tickets (can also be done using a PDA with cellular abilities).
2. Security officers can ascertain whether a vehicle is listed in police “black lists” and receive an immediate alert.
3. Fleet managers can manage their parking lot databases.
4. Insurance estimators can capture an image of a vehicle and its location for insurance purposes.
5. Service providers can verify whether a vehicle is entitled to a certain service (like car wash etc).

**Advantages of using the application:**

- o Easy to use and install
- o Inexpensive end user terminal
- o Information is saved in a central location with no data size limitation.
- o Since there is one central server, the customer can do real-time monitoring and reports of the system.
- o No special server maintenance requirements.
- o If the customer uses our server, he is freed from worrying about loss of data and the purchase of additional computer equipment.

**Recommended Technical Requirements**

**Server**

- Pentium 4 – 2.6 GHz RAM
- 1024 MB DDRAM
- 100 GB HD
- LAN port
- USB2
- Firewall
- A fixed IP Address
- Windows Server 2003
- SQL Server 2000 Standard edition

**Cell Phone**

- Series 60 J2ME capable
- GPRS enabled

**Image sensor**

- 0.05 Megapixel
- Resolution 240X320