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RE: DIVERSITY OF LICENSE PLATE RECOGNITION

The following article appeared in the March/April edition of Hi-Tech SECURITY Solutions - The Industry Journal for Security and Business Professionals

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Diversity of LPR

As integrated licence plate recognition (LPR) systems gain popularity across a variety of applications, the process engineering for each specific application needs to be understood: how speedy, precise, consistent, secure, informative and cost effective (ROI) is the solution?

For a mine weighbridge/LPR solution one does not require a detection rate of 60 MS or speeds of 300 kmph or 25 frames per second (FPS) (when 3 FPS will do, allowing up to 25 images to be captured if required), but certainly 100% secure, precise and consistent, and 99,95% accuracy is required.

While an image is worth a thousand words (and often more!) it is the creation of information from the stream of data that creates the return on investment. The data (licence plate, driver, owner, trucking company, weighbridge, lane, entry, exit, weight, number of trips, average weight, etc) is linked to the images and made available where and when required (SMS – possibly to the driver), e-mail (to the trucking company), Web server (so any discrepancies can be resolved online immediately), audio and video alarm to security (if any unauthorised trucks are detected).

The concerns of security are often at odds to the rest of the role players. Is the use of a number of low-grade guards making the best utilisation of limited resources? The idea is to remove much of the responsibility of assessing vehicles entering to dealing with the anomalies and allows normal authorised vehicles to proceed without delay. Would it not be better to replace four of the five guards with an automated integrated weighbridge/LPR system, keeping a single guard, allowing security to be proactive, rather than placing a high emphasis on the reaction to events? The automated integrated weighbridge/LPR system can be a spark, which could propel security, to become a greater strategic ingredient. Rather than reacting to outside forces, the security department could lead the way in solving the problems.

The application of LPR monitoring or access control techniques as proposed will lead to an increase of core competence. The security department needs to grow with the use of surveillance equipment, this is a subsystem and the combination of skills, processes, technologies and assets which come together within each subsystem to confer sustainable, repeatable and unique competitive advantage. It is essential to plan and execute new categories, which continue to build and reinforce these competences? The solution proposed allows this to occur, growing as the security department gains confidence in the equipment and the application thereof (Tamburin, 2003).

The marketing/promotion department could use these proposed solutions to enhance the brand building experience to the benefit of the mine. This would build both

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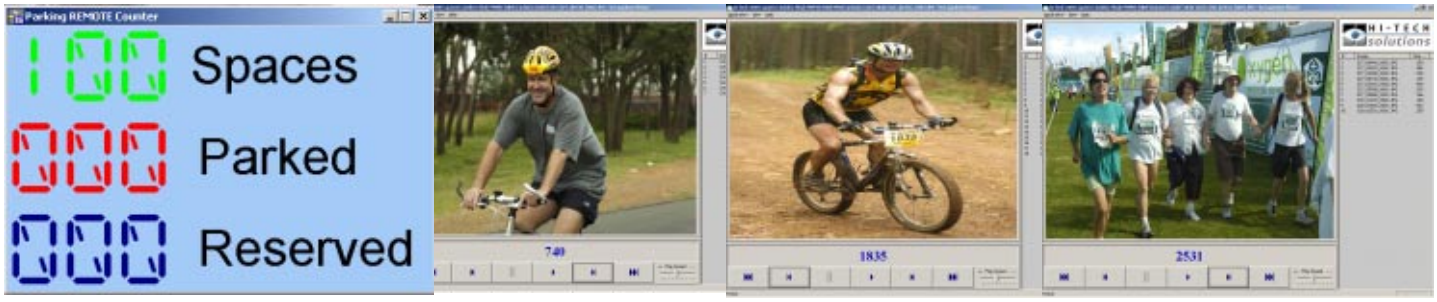

Maximising perimeter security

The property has been barricaded with electric fencing, perimeter alarm systems and automatic gates so that unwanted guests are kept out, now means must be provided by which wanted guests can alert the occupants of the house or building in order to get in.

The simplest and most practical solution is

intercom system with a unique style and outstanding features.

Installation makes use of only two wires throughout. To power the unit, 12 V d.c. from a gate motor battery or DC power supply can be connected to any entry panel or handset in the system.

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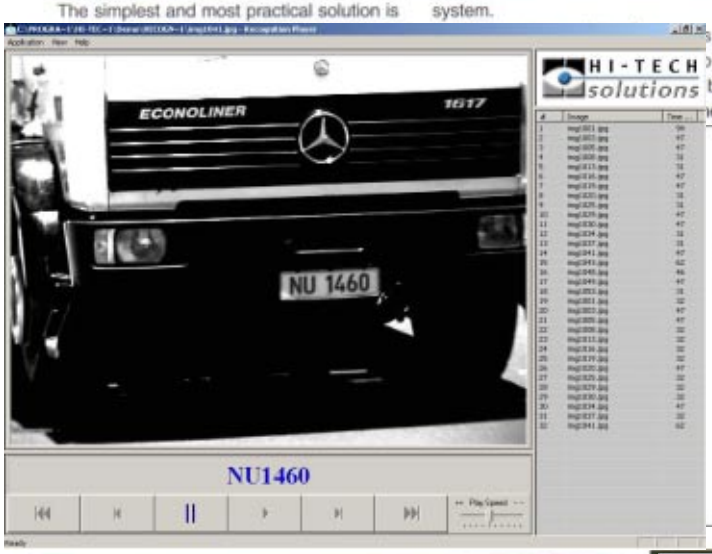
stantial protection circuitry has been incorporated into both the electronics of the phone and entry panel to guard against lightning and electrical surges.

The design of the POLOphone handset is state of the art. The hole in the centre of the handpiece allows it to clip over the cradle and merge smoothly into one compact unit.

With the handpiece remaining in position, the hole in the handpiece exposes the buttons on the face of the cradle allowing operation of the



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employee and visitor confidence; loyalty and satisfaction, lower marketing costs, increase margins and provide an opportunity for brand extension (Schrage, 2003). (The MBA dissertation Casino Exclusion Technique Exploration – Framework Development by Barry T. Dudley provides a detailed review of selection techniques by department, to obtain a 2 MB PDF copy, send an e-mail to mba@i-cube.co.za)

The proposed Mine weighbridge/LPR solution from *Surlec*, distributed by *Marshall International*, consists of cameras connected to a digital recorder, which will allow both a realtime and recorded view of the entry and exit lanes, linking all truck number plates to the access card (if present), colour of the truck, driver and video footage. On exit, if the access card links to the licence plate, driver and the car colour, the boom will open. If not, the operator will be alerted and security can investigate the discrepancy.

This specific system will allow for the capturing and analysis of images of licence plates, front and rear (which would also cater for trailers) to ensure an accurate record of vehicles entering and exiting the weighbridge. Each vehicle could be classified as required. Rules for access could be defined for each vehicle and access could be granted accordingly. The system doubles as a security and Visual Management System, and since it's an 'open architecture system' other compatible systems can be incorporated into your system. Facial recognition could be added to this to further enhance the system to ensure that there is a match between vehicle and designated driver. It will be possible to link multiple drivers to multiple vehicles so the system would not be restrictive from that perspective.

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