



CASE STUDY – WÖRNITZ TRUCK STOP

FULLY AUTOMATIC SECURE PARKING

**DESIGNA**



EFFECTIVE AUTOMATIC PARKING LOT SECURITY IN ACTION: WITH THE PM ABACUS SYSTEM, DESIGNA HAS CREATED A WIN-WIN SITUATION FOR DRIVERS, HAULIERS AND TRUCK STOP OPERATORS

## CASE STUDY – WÖRNITZ TRUCK STOP FULLY AUTOMATIC SECURE PARKING

### THE STARTING POINT

**A shortage of parking space:** Today, most LGV parks, service stations and truck stops are overcrowded, with thousands of LGV drivers parking without any kind of accommodation or services alongside Germany's motorways. The volume of transports, and with it the number of vehicles, is continuing to rise noticeably.

**Criminality:** The number of attacks on LGV's, their loads and their drivers is increasing worldwide. Entire vehicles including their loads are being stolen more and more often. The result, in addition to the threat to drivers, is many millions of Euros worth of losses and damage.

### THE SOLUTION

In recent years there have been several attempts to improve the situation through active parking management and security arrangements – but these have mainly been inconsistent, meaning that their effectiveness has been limited. A new project has changed this. Together with Würzburger Stadtverkehrs-GmbH, on 2nd April 2009, DESIGNA opened Germany's first fully automatic secure parking facility in Wörnitz, close to the A6 and A7 motorways.

Effective protection is provided to both drivers and vehicles through intelligent security technology, driving and rest periods can be complied with more easily – and rested drivers arrive at their destination safely and on time. The benefits to the operator are orderly parking conditions and a vastly improved image.

This is a pilot project that has attracted international attention and is certainly showing the way forward for the future of secure LGV parking.

### THE EQUIPMENT

**PM ABACUS system** with database server, manual pay stations, entry and exit terminals, barriers, 2 entry readers and license plate recognition;

**Video equipment** with a total of 12 cameras for monitoring the entrance, pedestrian gate, parking area and shop, a network IP camera for driver identification, 2 digital video recorders and a 22" TFT monitor;

**Digital intercom** with 1 control centre unit and 4 integrated intercom units;

**Boundary fence** with double bar infill (height 2.43 m), sliding gate and pedestrian gate.

### THE PROCESS

**At the entrance:** As soon as the driver requests a ticket at the ergonomically positioned entry terminal, photographs are taken of the license plate, driver and vehicle (from two different directions) and stored in the database together with the ticket information. The barriers and high speed sliding gate only open after the driver has received his ticket with the license plate number printed on it, enabling the vehicle to enter.

**Parking:** After entering the parking area, the vehicle is recorded on video from all sides. In addition, throughout the time spent by the vehicle in the parking area, four omnidirectional cameras ensure that every movement is recorded digitally and without interruption. If the driver wishes to leave the secure area, he can do this using his parking ticket at the pedestrian gate. When he returns, the ticket data is read by the reader before the pedestrian gate is released.

**The payment process:** The parking charges are paid in the filling station shop. As soon as a member of staff feeds the ticket into the electronic terminal, a picture of the driver and license plate appear on the screen, enabling the driver's identity to be easily checked. Once the charges have been paid, the ticket is activated for departure.

**At the exit:** The entire exit procedure is recorded digitally. When the ticket is fed into the terminal the actual license plate is compared with that stored in the database. If the two numbers do not correspond – e.g. due to a change of tractor unit or because the plate is too dirty – the shop staff are notified both visually and audibly. The driver and license plate information appear on the screen together with the current video data. The barrier and high speed sliding gate will only open once they have been manually released by the workstation computer.



THE EXTENSIVE IMAGE RECOGNITION AND VIDEO TECHNOLOGY IS FULLY INTEGRATED INTO PM ABACUS

### ADVANTAGES AT A GLANCE

#### From the operator's perspective:

- Controllable and orderly parking conditions
- An improved image as a "partner to hauliers"

#### From the hauliers' and drivers' perspective:

- Security for the load, vehicle and driver
- Compliance with driving and rest times
- Rested drivers who are better able to concentrate
- Adherence to agreed delivery times

THE GATE ONLY OPENS ONCE THE LICENSE PLATE, DRIVER AND VEHICLE HAVE BEEN RECORDED



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