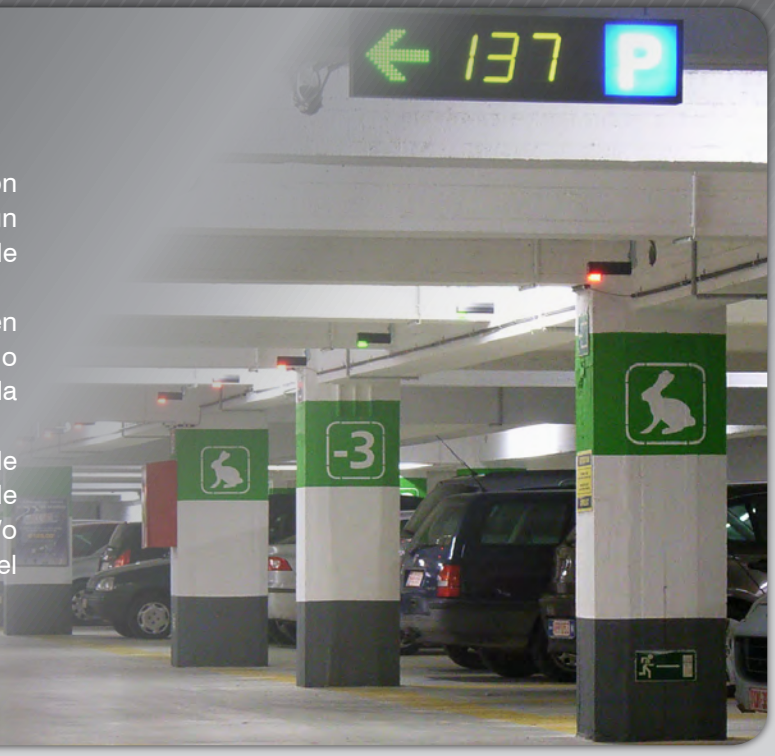
PROYTEC S.R.L
PROYECTOS Y TECNOLOGÍA

Parking Guidance System

PROYTEC S.R.L. ha preparado la presente solución técnica, para la instalación y puesta en marcha de un Sistema de Parking Guiado basado en la localización de plazas libres.
Se ha preparado la presente propuesta, pensando en una optimización de los equipos y medios, esperando poder cumplir con las expectativas previstas para la implementación del Sistema.
Los elementos propuestos son los que surgen de nuestra experiencia en la instalación de Sistemas de Control, pudiendo los mismos ser modificados y/o adaptados según las preferencias/necesidades del usuario.



Technical Solution

The different circuits of equipment distributed along the car park have been designed, together with communication and independent supply circuits unified by means of Ethernet communication. All the elements are found in the attached graphic documents and are studied to achieve the optimal operation of the guidance system.

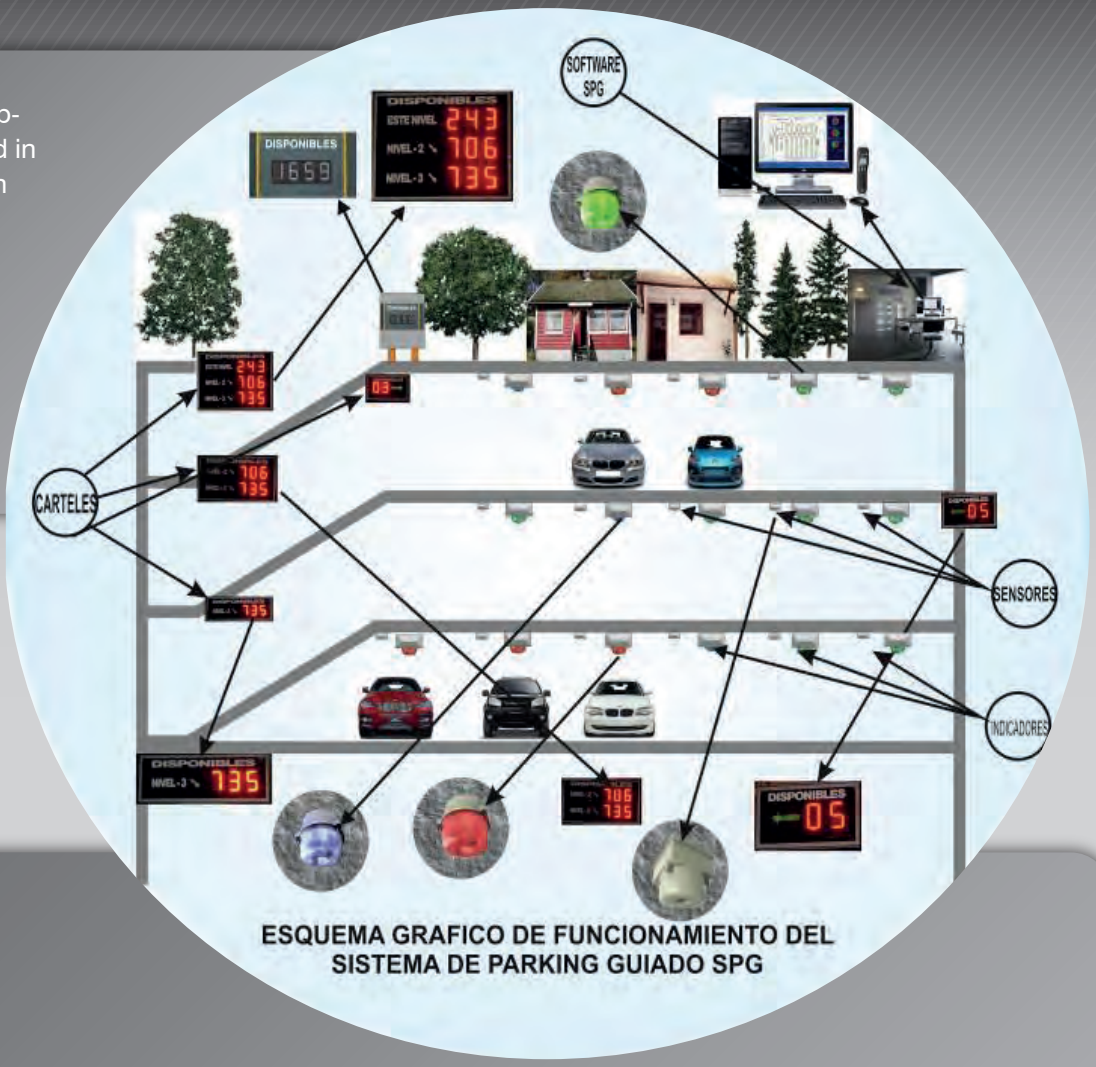
Operation

The Guided Parking System aims at controlling slot availability in a car park.
It uses a vehicle detection method with ultrasonic sensors and infrared light crossing detectors.
Occupancy detectors will inform the indicator in each bay about the slot occupancy status so that the sign changes from green/blue (empty) to red (busy).
At the same time, this information is sent to the control centre and is duly processed by the powerful PGS Park Software, keeping the displayed information about slot availabilitty up to date.
The Guided Parking System provides the parking user with updated information in order to quickly find an empty bay, and it provides the parking manager with all the data needed to simplify and enhance management. It also provides statistics, giving the customer an extra service, placing it among the highest service quality standards in parking management.

PROYTEC | 4080 Tristan Malbran St. - Cerro de las Rosas - Zip Code 5009 – Córdoba - Argentina - Telefax: +54 351 4812178
info@proytec.com.ar | www.proytec.com.ar

PROYTEC S.R.L
PROYECTOS Y TECNOLOGÍA

The sensor/indicator equipment is factory pre-burned in for its proper installation in the assigned bay.



ESQUEMA GRAFICO DE FUNCIONAMIENTO DEL SISTEMA DE PARKING GUIADO SPG

In order for the lights to be visible from either one-way or two-way lanes, 360° indicators will be used; this will provide the user with a feeling of homogeneity and unique perception from any angle.

Indicators will turn green when bays are free and turn red as soon as they become unavailable.
They may blink intermittently to indicate reserved bays in the color chosen by the parking administrator.
Indicators in the bays for disabled and pregnant will turn blue to indicate the slot is empty and will turn red to indicate it is busy.

The parking administrator may purposely turn the red light in a certain area so as to complete occupancy or guide users to the most convenient area at that time, obtaining the best installation management and exploitation, even at times of higher demands.
It is very important to highlight the indicator's light power of over 6,000 mcd, which makes it extremely powerful and visible.

PROYTEC | 4080 Tristan Malbran St. - Cerro de las Rosas - Zip Code 5009 – Córdoba - Argentina - Telefax: +54 351 4812178
info@proytec.com.ar | www.proytec.com.ar

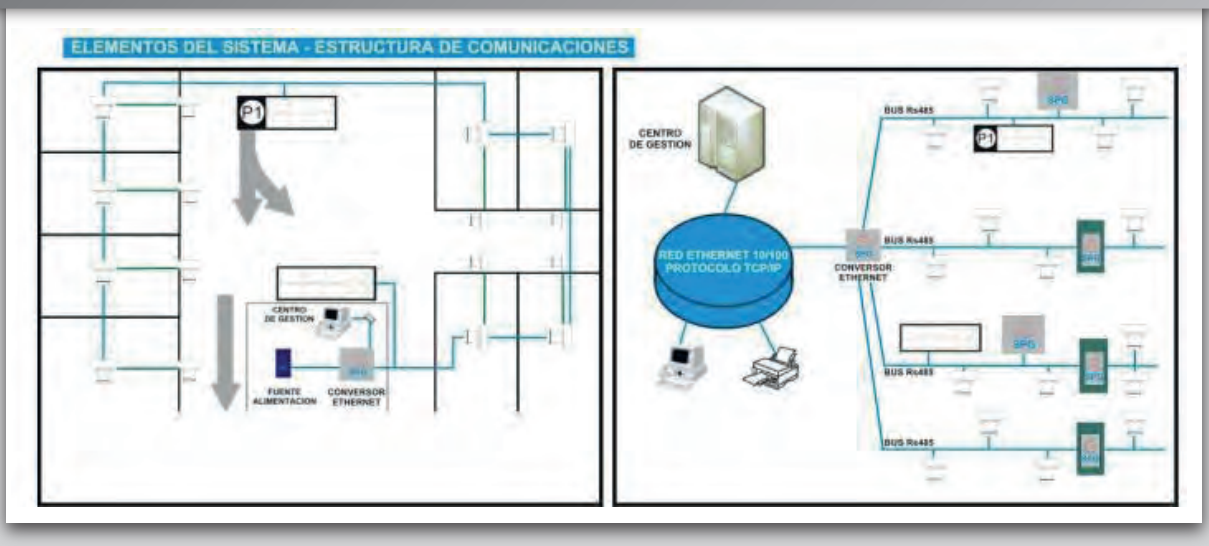
PROYTEC S.R.L
PROYECTOS Y TECNOLOGÍA

Apart from the sensors and indicators of empty/busy slots, the guidance system can be complemented with Signs alotted throughout the car park in order to inform about bay availability and their location to facilitate user's immediate access.

Our proposal suggests using signs with the following technical specifications as detailed in the images below. Signs are quoted per unit and the quantity and their place of installation will be determined toghether with the final user based on our suggestion, for which we need a detailed plan of the lane direction.

Our system foresees the possibility of any future enlargement which may include sensors/indicators as well as signs indicating available slots. In part, this is achieved by means of Plug & Play connectors. They provide ultimate reliability and flexibility to the system, since you can add/ replace additional elements of the system at any time as well as Advertising Screens (backlights, variable LED messages, etc.).

A 110/220 VAC input / 24 VCC output 200W switch will be installed for each circuit and for every four circuits, there will be 1 Industrial Serial Converter installed, turning four Series Port to Ethernet.



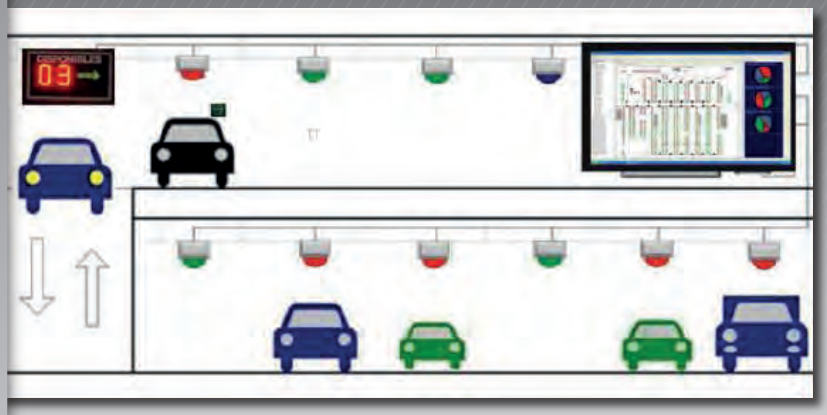
PROYTEC | 4080 Tristan Malbran St. - Cerro de las Rosas - Zip Code 5009 – Córdoba - Argentina - Telefax: +54 351 4812178
info@proytec.com.ar | www.proytec.com.ar

PROYTEC S.R.L
PROYECTOS Y TECNOLOGÍA

Operation Centre

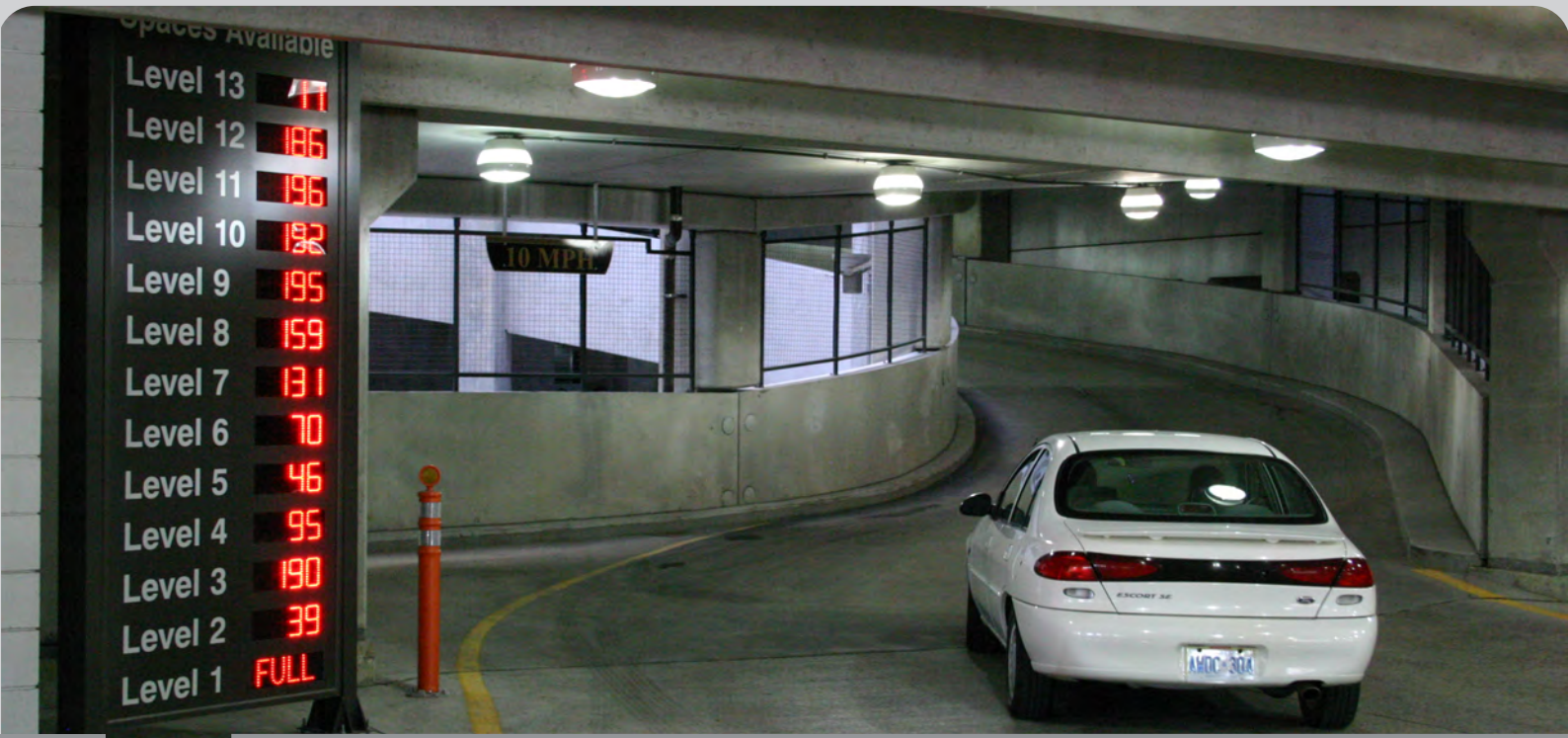
The operation centre will include

- CONTROL PC / Software PGS which can be accessed from Control Panels gathering data from underground levels 1 and 2
- Electric Control Panel and Data Control Panel



Control Software Pgs Park

The centralised control software PGS PARK has been developed in a Java NetBeans platform, the one used by system engineers at NASA.
The software shows slot occupancy status on the screen in real time in every car park level. It includes plan details and signs, occupancy statistics, graphs; it also allows saving bays as needed or purposely modifying occupancy status according to the parking administrator's decision.
It also allows to detect errors quickly and to have the possibility of correcting them even at high occupancy times.
In order to save energy, the software can reduce indicators light brightness when desired as well as setting up a schedule programming for this application.
It can control backlight advertising signs and to include changing text messages.
It can monitor the general occupancy status of the car park over the Internet.



PROYTEC | 4080 Tristan Malbran St. - Cerro de las Rosas - Zip Code 5009 – Córdoba - Argentina - Telefax: +54 351 4812178
info@proytec.com.ar | www.proytec.com.ar