

Softcon Vehicle Systems

REVISION 1.03.51

This document provides information on Softcon Vehicle/Parking Systems. This file is available as a help file.

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1 AIM

The aim and goal of this document is to provide information regarding the Vehicle/Parking related products available from Softcon. The document serves as the general specification for these products and is to be used for marketing and quotation purposes. Full specifications of the Hardware (HW) units are listed in the appropriate HW documents with general specifications listed here. Operating procedures and details of the Software (SW) are listed in the help files linked to the SW.

2 SYSTEMS

Softcon parking systems are access card based and are via on-line systems (linked to a PC) or off-line systems. Access is granted or denied based on card settings, time of day, expiry, counters and time-outs.

Generally, card access to (or from) parking zones is the same as access to any other zone controlled by the system, with additional parking related functions available. These are described under card access control below.

Special off-line systems (time card systems) store additional data on the access cards.

3 CARD ACCESS CONTROL

In **on-line systems**, access to parking is via a normal access control card, adhering to all normal functions of access control, i.e. card enable/card capture, access to selected zones, start and expiry times, time groups, Anti-Passback (APB), Strictly from, etc. The following additional parking related options can be set:

Reader enable on input. Loop detectors that indicate the presence of a vehicle are connected to the controller. When no vehicle is present, the reader is disabled. When used in conjunction with APB, preventing a card holder from exiting on foot and entering with another vehicle, i.e. the readers will only grant access when a vehicle is present.

Trigger (Count) groups. Cards are allocated to a group with a maximum limit set for an area zone for the group. Access is only granted if the count is less than the set maximum and all other access control parameters are met (see counter based examples in the appendix).

Card Count. Each card can contain an overall counter and a period counter. When either counter has no count remaining, access is denied. Specific area zones are set as counting areas. Period counters can be set to automatically reload to pre-set values after preset periods. For example, 100 parking entries are set, with a maximum of 2 per day.

Time-out in area. Areas through which vehicles must move, but not stay, are set with a time-out after which the card is automatically disabled. Typically, all vehicles must enter via the basement barrier, but long term parking vehicles must park on the top parking levels, minimising the movement of short term parking vehicle that are not set with a time-out.

Events and counters can be set that trigger on events (e.g. on vehicles entering, exiting), typically barring certain groups from parking zones when counters are full. See examples in the appendix.

On-line **drawings** facilitate the use of 'live' displays, indicating the values of parking counters, statuses of barrier and roller-shutter doors / gates and provide direct control – e.g. open or lock barriers, disable reader, etc. See examples in the appendix.

In basic **off-line systems**, a Softcon controller is set with cards that have access and access is granted or denied adhering to card enable, APB and time groups rules. Start, expiry, zone counting and strictly from functions do not exist. Special data on card systems (time card) are detailed below. Additional parking related options available are:

Reader enable on input. As described above.

APB with vehicle. When a vehicle is not present, the reader remains enabled, allowing card holders entry or exit. APB location of the card with vehicle is only changed when vehicle is present. The card without vehicle ignores APB and card with vehicle obeys APB, preventing the holder to exit or enter twice with vehicle, but allowing exit or entry on foot.

4 NUMBER PLATE RECOGNITION

Interface to number plate (NP) recognition systems is via one of the following mechanisms:

EXTERNAL LINK.

Access card is read from a reader and the external system is requested for access. The external link grants access after verification of number plate linked to card by opening the barrier or by replying access granted – the SoftWin3 opens the barrier.

ACCESS READER.

NP readers are configured as readers in the SoftWin3 system – a reader is linked to a controller, the controller type is set from the appropriate type (e.g. Sentry NR), the controller communication is set to the appropriate comms interface (e.g. the comms interfaces is Sentry TCP).

The NP reader setting of **use card** is set to **Number Plate**. This results in a search for the card from all the vehicle registrations in the card database.

Two option can be used for identification:

Number plate only. No reader is linked to the number plate reader (field in the reader set-up). The first matching number plate is found in the card database (from all the registration fields). All access control functions of the reader and card settings are tested for access control (as any reader). The event is disabled, out area, enabled, ect.

Card and Number plate (dual badge). An access reader is **linked** to the number plate reader (the number plate reader is not linked, the access reader is linked to the number plate reader). The number plate (string) and time/date is stored in the last card fields (last card must be a text field – number plate and not card reference is stored). A “Linked Card” event (at reader) is generated.

Access of the card badged at a reader (set to db not in controller) linked to another reader (the card reader linked to the NP reader) is as follows:

If the card does not have access – the appropriate event is generated (disabled, out-area, etc.).

If the card has access (enabled), the last card (the number plate) of the linked reader is checked:

The last card date/time must be within the “**Linked time-out**” setting of the linked reader (“Linked time-out event if not”).

The vehicle registrations (reader **use card** is set to **Number Plate**) of the access card are checked for a match (no match – “Registration mismatch event”).

If the NP matches, the access of the card at the number plate reader is checked (may not have access at the NP reader). The appropriate reader event is generated (enable, out-area, etc.).

Note: if the linked reader “use card” setting is not Number Plate, the dual badge tests the access of the card stored at the last card parameter. If enabled, the enabled event is generated for both cards.

Currently available NP reader types are:

Sentry NP. The communication is TCP, port 50,000. The reader / controller continuously sends the number plate read. The message includes date/time and the quality. The last card date/time is updated, if the NP read differs to the previous, the last card is updated and the “Linked Card” event (at reader) is generated.

5 FUEL MANAGEMENT

This **vending** option controls fuel pumps via controllers. Fuel dispensing functions are controlled via access cards that request dispensing. The system functions on-line, with the PC client program granting or denying the requests.

Every item dispensed (e.g. super, diesel) is set with a **price** and optionally with a **discount** and a **subsidy** value. Cardholders have value and subsidy amounts that are used for dispensing. Value amounts can be added to via **cash add** PC menus or via note acceptor controllers (**cash loaders**). Subsidies are set to automatically reload by amounts set per card, on periods set per card. Cardholders can optionally be allocated to **cost groups** that share value and subsidy, typically departmental accounts. When presenting a card at the pump, the cardholders name and the available value and subsidy are displayed.

All **access control** functions are available, limiting dispensing to certain pumps, to certain times of the day,

day of week and holidays. No fuel is dispensed on credit, i.e. no dispensing if no funds available and dispensing stops when funds become zero.

Tockheim fuel pump direct interface protocols are accommodated as standard.

Product **stock management** can be enabled for each item and setting of the full quantities of each product in each pump. Low-level alarms of products are generated. **Maintenance**, **filling** and **cleaning** service alarms are generated if these activities are not performed within set periods. **SMS** alarm message can be sent.

Options are available to enforce the badging (via card or finger print) of the driver and the pump attendant – these references are logged with the transaction and are available for reporting functions.

When dispensing fuel, the vehicles **kilometer** reading can be entered via a keypad as an option or enforced (per pump). A Maximum setting per card (when the card is allocated to the vehicle). The km is logged with the transaction for reporting purposes.

The system facilitates the configuration of “virtual” pumps not linked to the system – this enables the manual entry (via a PC linked to the system) of fuel added to vehicles at the non-linked pumps. These entries are done to ensure management of the km, usage and cost management of all vehicles.

The following options can be set:

Volume (e.g. litre) limit per product (e.g. diesel, super, lead replacement) per pump.

Enforced km entry set per pump.

km limit per card (vehicle). The maximum km per tank can be preset for each card in the PC database, then the km entered at the pump when refuelling, must be greater than the last km entered at the pump, but less than the last plus km per tank presetting. If km per tank is set to zero, this check is not done (typically a zero setting for non-company vehicles). A non-zero option enforces that fuel added at “virtual” pumps not linked to the system must be entered via a PC linked to the system.

Reports are available listing the fuel dispensed at each pump, per vehicle, per department. Liter per 100km, km per liter reports included.

A Slip can be printed automatically or on request.

6 WEIGH-BRIDGE SYSTEM

Trucks are weighed on entry and weighed on exit, the net weight is calculated, logged and a way-bill is issued. The system functions as follows:

1. Access to the premises can be controlled via a normal access barrier controlled by a card reader. The RFID tag is fixed to the truck. Normal access control of enables, start and expiry, time of day/week, anti-pass back, etc. is enforced.
2. Access to a weigh-bridge is controlled by a barrier that is controlled by a reader that reads the RFID tag fixed to the truck. Normal access control of enables, start and expiry, time of day/week, anti-pass back, etc. is enforced. As an example, certain trucks are only allowed access to certain weigh-bridges. Weigh-bridges can be enabled / disabled from the controlling PC, via enabling buttons / switches or automatically on specific time of day. Enable / disable indication can be indicated on display lights / lamps. While a truck is in the weigh-station, the entry reader is disabled.
3. An operator badges his tag at the weigh-bridge control panel to log the person responsible for the transaction. This step can be disabled.
4. The driver tag is badged at the weigh-bridge control panel. This enables the selection of the stock-pile buttons (enable indicated with LED(s)).
5. The empty button is selected and the truck is automatically weighed and this weight is checked against a minimum preset for the truck tag. If the weight is greater than this minimum, an alarm is generated and the exit barrier is opened. Optionally the alarm is only cleared and the exit barrier opened when an operator tags at the weigh-bridge control panel. As an option, while the empty button is selected and the operator tags, this weight is set for the truck as the minimum empty weight.
6. Steps 2 and 3 are repeated when the truck is loaded and need to exit the premises.
7. The appropriate stock-pile button is selected and the truck is weighed. If the weight exceeds a maximum set for the truck, an alarm is generated. The exit barrier is opened. A way-bill is printed listing details of the operator, truck, driver, company, product, stock pile, weight empty and weight loaded and net weight (the difference). Optionally the alarm is only cleared and the exit barrier opened when an operator tags at the weigh-bridge control panel. As an option, while the stockpile button is selected and the operator tags, this weight is set for the truck as the maximum full weight.
8. Exit from the premises is controlled by an exit barrier, controlled by reading the truck tag. Exit is only granted if load is valid, i.e. the empty weigh was less than the minimum and the full load was less than the maximum load.

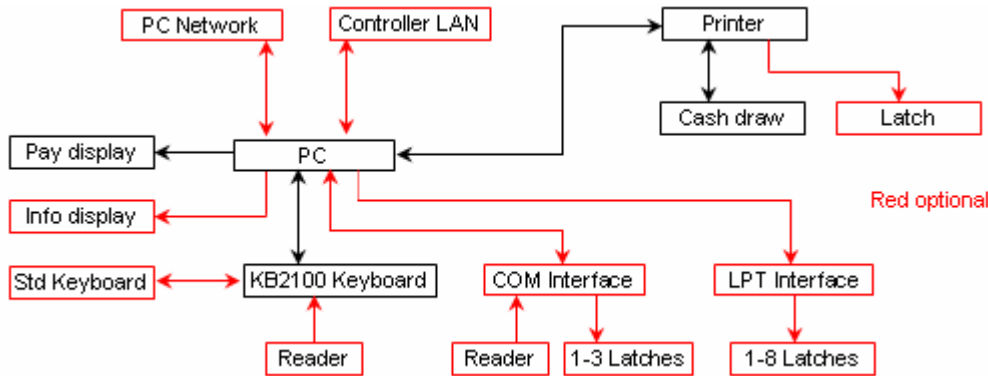
All transactions are logged with date-time, truck tag, driver tag and optionally the operator tag. The weigh-bridge reader is optionally a fingerprint reader.

Reports are available lists all transactions or totals per vehicle, company, client, product, stockpile, driver or operator.

7 PARKING

7.1 PPOS

Softcon provides two parking point of sale (PPOS) systems: non-card based **pay on entry** (fixed rate, according to time of day/week/holiday and vehicle type) and card based **pay on exit** (rate according to period parked, time of day/week/holiday and vehicle type) – cards are issued on entry (system logs the entry time/date) and returned on exit. These are PC based till systems, configured as follows:



When **Pay on Entry** and using a guest card system, a **reader** is tied to COM port(s) via serial interface or is integrated in the keyboard. The guest card number is communicated to an external system which grants free access or request payment – loyalty points are deducted.

In **Pay On Exit** implementations, **Entry, Pay (exit)** or **Entry/Pay** readers could be tied to PC COM ports or be integrated in the keyboard. Entry marks card with entry time and activates the entry latch relay on selection of sale. The pay reader performs PPOS functions, activating an exit barrier relay on selection of sale.

Barrier and turnstiles are controlled via the auxiliary output on the printer or via 'Latch' outputs that are available via the Softcon serial COM interface (3 outputs) or the Softcon parallel LPT interface (8 outputs).

Access control readers linked to the Softcon SCS_Client program can be configured as **Entry** or **Pay** readers, passing the card details to PPOS, functioning as described above (as if the readers are connected directly to PPOS PC). The SCS_Client program could be running on the same PC or on PCs linked to the PPOS PC via PC networks. When vehicle details need not be recorded, entry readers could be set to not be linked to PPOS, automatically setting the entry time and opening the entry barrier. Cards could be issued via a card dispenser.

A1 lock	B1 unlock											L2 sale	
A2* GP	B2* WP	C2* Black	D2* Red	E2* number		G2* passen			H2 car	I2 amount	J2 logon	K2 print	L3 cancel
A3* N	B3* EC	C3* Blue	D3* Silver	7	8	9	H3 taxi	I3	J3 logoff	K3 accept			
A4* MP	B4* NC	C4* Gold	D4* White	4	5	6	H4 bus	I4	J4 passw	K4 clear			
A5* NVW	B5* FS	C5* Green	D5* Yellow	1	2	3	H5 pedestr	I5 previou	J5 takeon	K5			
A6* ZN	B6* Other	C6* Grey	D6* Other	0		.	H6 lost	I6 next	J6 cashup	K6# reader			

The **Keyboard** generally used contains dedicated (programmable) keys for the relevant functions with a standard keyboard only installed when set-up settings are edited. The keyboard can be viewed on display, allowing the use of a **touch displays**.

(* generally only pay on entry, # only pay on exit).

The **slip printer** is serial, parallel or USB. Data printed is configurable, typically company name, dates and periods, amounts, operator, lane, vehicle details and number of passengers.

The **info display** (typically a 4 line LED display) is optional and the vehicle type and amount payable is displayed on a **pay display**. The displays are connected to the serial COM ports. The info displays data as set via a management PC, for example displaying parking fares, price specials, entertainment announcements, etc.

Operators are logged on with a **“take-on”** amount and a **“cash-up”** prints and logs the number of vehicles entered free, paid and amount taken. Take-on and cash-up options are only available when the keyboard is in **supervisor mode** via a key setting or set via a management PC.

The screenshot shows the SCS_PPos software interface. The window title is "SCS_PPos". The interface is divided into several sections:

- Reader:** Mode: EXIT; Status: READY (highlighted in green); Card: [empty]; Entry: yyyy-mm-dd hh:mm; Exit: yyyy-mm-dd hh:mm; Period: hhh:mm.
- Operator:** Keyboard: Locked; Take On: 0.00; Cash Up: 0.00; Cars Paid: 0; Cars Free: 0.
- Fare:** Due: 0.00; Amount: [empty]; Change: 0.00.
- Details:** A red bar with the word "REQUIRED" is visible. Below it are fields for Registration digits, Province, Passengers, and Vehicle colour.
- Unknown VItem:** A button labeled "Unknown VItem".

7.1.1 PPOS Pay on entry

The pay on entry option allows for the entering of vehicle details via a point of sale (POS) terminal with programmed keys (referred to as parking POS, PPOS). The details are set per vehicle type as required, optional or none (e.g. taxi is required, car optional and pedestrian not) and can be overwritten for the PPOS by the supervisor (e.g. when the lane is backed-up, set not required). Data entered is **vehicle colour**, **registration** and **number of occupants**. **Parking tariffs** are selected from preset values (e.g. car, taxi, bus) per entry lane and can vary according to time of day, day of the week and holidays. A **slip** listing the selected data is printed. The slip is presented to security on exit. **Guest cards** can be presented to a reader connected to the PPOS terminal, with the holder's name being obtained from an external data system and displayed and printed on the slip. Guest cards can be granted **free access** in accordance to data received from the external system. Access points are controlled according to the selection, e.g. car and taxi open a barrier and pedestrian opens a turnstile.

7.1.2 PPOS Pay on exit

Exit is granted on reading of a card / token / slip issued on entry. Options for entry options are:

An access card is badged and handed to the driver (by an operator / attendant).

A barcode and / or date-time slip - is printed by a PC at a dispenser and issued to the driver.

For operator on entry option, entry of vehicle details and number of passengers can be enforced.

On exit, the card / token / slip issued on entry is read and the amount due is calculated (or free) according to the vehicle type selection (optional) and the period of the parking (exit time date, less the entry time date). As an option, the entry time-date can be entered by the operator.

Fares can be set for different periods, time of day and day of week. The exit barrier is either opened on payment or by entering of the card / token / slip at the exit receptor. A time period can be set for exit after payment – if exceeded, exit is denied.

7.1.3 PPOS Pay on scan

A card (typically a barcode) is read and the number is entered in to the card database. Exit is granted on reading the card at the exit reader. Settings are available to rotate the card database where the card is stored. All above options of payment is available.

7.2 Parking - Access

The parking option allows the setting of readers as **Park Entry**, **Park Display**, **Park Pay** or **Park Exit** readers. On entry, the date and time is logged to the card database. The exit reader only grants exit when the time present (after entry or after pay) is free. A **parking fare** data table sets the amounts payable for the present intervals. Park display readers indicate the present time and the amount payable. Pay readers displays the time present, the amounts due and resets the entry time to the current time (the amount due is logged).

8 TIME CARD SYSTEMS

A time card system consists of a card programmer(s) and stand controllers.

The controllers grant or deny access by reading the following data programmed on the card:

Facility code. The facility code on the card must match the setting in the controller.

Start and expiry. The real time and date must be between the start and expiry set on the card.

Time group. The time groups allocated on the card is checked by the time group set-up on the controller.

Should the above be correct, the controller uses the time group as card number (e.g. time group 3 is used as card number 3), with normal functions of enable, capture and time group of that card number being used to grant or deny access (with capture).

Presently the time card system is limited to MAG cards, with the location on the card of the facility code and the start/expiry/time group configurable. Other data on the card is ignored. Smart-prox card systems will be available by end 2008.

Time card systems are typically used in pre-paid or pre-reserved parking applications where on-line is not possible. No option of "black listing" of lost cards are available, cards become unusable only after expiry. The time-group setting is used to limit access per controller on time of day, day of week/holidays. The time group to card number setting effectively allows for setting per reader and for card capture of certain cards.

9 TIME GROUPS

All Softcon systems described above use time groups. A Softcon access controller has 15 time groups which enable 8 time zones (start and end time slots) per day of the week and holidays. 15 holidays can set. If a set time zone is valid, i.e. the real time is within the start and end of a time zone, the time group passes.

For example:

	Group 1	Group 2	Group 3
Start end	M T W T F S S H	M T W T F S S H	M T W T F S S H
10:00 to 10:00	y y y y y y y y	n n n n n n n n	n n n n n n n n
06:00 to 18:00	n n n n n n n n	y y y y y n n n	y y y y y n n n
07:00 to 13:00	n n n n n n n n	n n n n n n n n	n n n n n y n y
00:00 to 00:00	n n n n n n n n	n n n n n n n n	n n n n n n n n
00:00 to 00:00	n n n n n n n n	n n n n n n n n	n n n n n n n n
00:00 to 00:00	n n n n n n n n	n n n n n n n n	n n n n n n n n
00:00 to 00:00	n n n n n n n n	n n n n n n n n	n n n n n n n n
00:00 to 00:00	n n n n n n n n	n n n n n n n n	n n n n n n n n

Group 1 has 24 hr access.

Group 2 from 6:00 to 18:00 on week days only

Group 3 from 6:00 to 18:00 on week days, 7:00 to 13:00 on Saturdays and holidays.

10 DATA LOGGING

On-line systems have a variety of logging, printing and display options. These are discussed in the appropriate manuals.

Off-line systems do not log any transactions.

In pay systems, operators are logged on/off and the payments received are logged per transaction, linked to operator. Actions such as "cash-up" are logged.

Audit trail logging, recording which operator edited data, from what to what on which PCs, can be set.

11 REPORTS

Reports are available in on-line systems, listing card movements over a selected period (start and end time-date) and are described in the relevant documents.

In pay systems reports are available that list **details** or only **totals** for selected periods, with daily subtotals. Selections of issuers, operators, etc. can be made.

The system uses Seagate **Crystal** reports to generate the reports.

Reports can be set to be made automatically or on request. Reports can be **displayed**, **printed** or stored in **files**. Reports can set to be automatically **emailed**.

PPOS REPORTS:

Softcon Report - PPOS Cash-up		8
Site ID		sw3_ppos_cash_day.rpt

From _____ to _____ to _____

Date/Time	PC	Operator	Free	Paid	Total	Take-On	CASH
2004/06			12	85	97		2,000.00
2004/06/21			12	13	25		2,000.00
	localhost		12	13	25		2,000.00
2004/06/21 10:14:28		1	6	4	10	110.00	2,000.00
2004/06/21 10:14:30		2	1	6	7	415.00	0.00
2004/06/21 10:17:32		1	5	3	8	0.00	0.00
2004/06/22			0	72	72		0.00
	Test PC		0	72	72		0.00
2004/06/22 10:04:10		2	0	66	66	12.00	0.00
2004/06/22 10:04:10		3	0	6	6	440.00	0.00
2004/07			1	22	23		6,700.00
2004/07/23			1	22	23		6,700.00
	localhost		1	21	22		6,700.00
2004/07/23 10:17:32		1	0	4	4	0.00	0.00
2004/07/23 13:09:10		1	1	17	18	0.00	6,700.00
	Test PC		0	1	1		0.00
2004/07/23 10:14:30		2	0	1	1	0.00	0.00
			13	107	120		8,700.00

Softcon Report - PPOS item totals		5
119 PPOS : Events - Item totals		sw3_PPOS_items.rpt
SOFTCON DEMO ROOM		

From 00:00:00 2004/03/11 to 24:00:00 2004/03/16 00:00:00 to 24:00:00 PC 0 Operator 0

ITEM	PASSENGERS	QTY	CHARGE
Bus	40	2	0.00
000006100003550174	20		FREE
203006550151	20		FREE
Car	4	2	4.00
Parking Paid	2		4.00
203006550151	2		FREE
Taxi	10	1	6.00
Parking Paid	10		6.00
			10.00
			54
			5

Softcon Report - PPOS item totals116 PPOS : Events - Item totals, day
Site ID8
sw3_PPOS_items_day.rpt

From 00:00:00 2003/09/14 to 24:00:00 2003/09/15 00:00:00 to 24:00:00 PC 0 Operator 0

ITEM	PASSENGERS	QTY	CHARGE
2003/09/14	14	5	56.00
Car	5	2	20.00
Taxi	9	3	36.00
2003/09/15	9	3	32.00
Car	5	2	20.00
Taxi	4	1	12.00
	23	8	88.00

Softcon Report - PPOS PC Item totals118 PPOS : Events - PC totals
Site ID8
sw3_PPOS_PC_items.rpt

From 00:00:00 2003/09/14 to 24:00:00 2003/09/15 00:00:00 to 24:00:00 PC 0 Operator 0

PC	ITEM	PASSENGERS	QTY	CHARGE
1	localhost	12	5	54.00
	Car	7	3	30.00
	Taxi	5	2	24.00
2	PC_2	11	3	34.00
	Car	3	1	10.00
	Taxi	8	2	24.00
		23	8	88.00

Softcon Report - PPOS totals117 PPOS : Events - Totals
Site ID8
sw3_PPOS_totals.rpt

From 00:00:00 2003/09/14 to 24:00:00 2003/09/15 00:00:00 to 24:00:00 PC0 Operator 0

PC	OPERATOR	ITEM	PASSENGERS	QTY	CHARGE
1	localhost		12	5	54.00
	1	Liebenberg, M.T.	8	4	42.00
		Car	7	3	30.00
		Taxi	1	1	12.00
	2	Cat	4	1	12.00
		Taxi	4	1	12.00
2	PC_2		11	3	34.00
	2	Cat	11	3	34.00
		Car	3	1	10.00
		Taxi	8	2	24.00
			23	8	88.00

12 APPENDIX - EXAMPLES

12.1 Shared parking (Holland)

Ten companies share a vehicle park, each paying for a number of parking bays (a counter set for each company, with a maximum count set equal to the number of bays). Cards of the employees who have parking get set with the companies trigger (count) group.

Drawing <DUTCH_1>

Park Entry
Park exit

Cat, Red Entertainment CAT007GP	Jones, Michelle Reception HOT001GP
---------------------------------------	--

IN	OUT	COUNTER	MAX	FREE
		Big Mac	10	5
		WoolTrue	15	6
		CND	5	0
		Hennies	10	10
		Softcon	25	4
		ADMT	8	7
		Implax	55	9
		Central X	12	4
		GetBit	5	5
		ITX	10	0
TOTALS :			155	50

visitor buttons only function when indicators are green (free not 0 for in, not max for out)

Each company has a **drawing** displaying the status of the vehicle park and enabling the opening on the entry and exit barriers. Alternatively a park manager displays the drawing.

The reader names are displayed from database (e.g. park entry).

Vehicles detected at the entry and exit readers are displayed with a vehicle icon (while the vehicle in on the loop) and the last card tagged name, department and registration are displayed.

The counters of each company (e.g. Big Mac, WoolTrue, etc.) display the maximum number of parking bays and bays currently available (free) to each company. Total bays and total free are displayed.

are buttons that open entry and exit barriers. Entry buttons are only active when parking is available for the company and is indicated by icon. indicates full and the button has no effect. Similarity when all companies' bays are free, the out buttons are in active. Appropriate passwords prevent one operator selecting a button of another company.

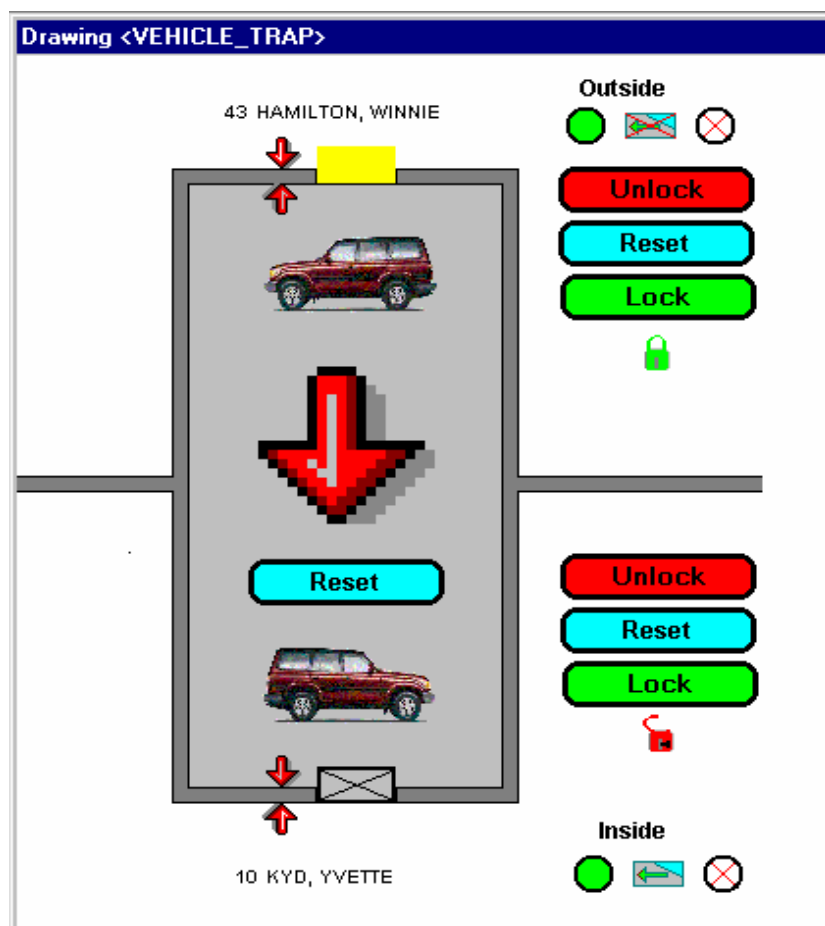
Entry and exit is as follows:




Employees: Access cards are tagged at barrier readers and on entry request, access is granted if the company counter is not at maximum and the free counter is automatically decremented. On exit, the company free counter is automatically decremented.



Visitors: At the entry barrier, the visitor calls the company visiting (or the park manager) on an intercom. Should the operator wish to grant access, the companies entry button is clicked and if parking is available, the barrier is automatically opened and the free count is decremented. On exit, the same procedures are followed, clicking the out button opens the exit barrier and the free count increments. An entry and an exit push button can be installed at each company intercom, functioning as the buttons on the display. Light in the button could indicate if the button is functional (similar to the green and red icons on display).


12.2 Vehicle trap (Zimbabwe)



Vehicles are required enter / exit a secure bank vault area via a vehicle trap with two roller shutter doors. Both doors can never be open and the same time and each have fully closed and open contacts. Entry and exit are automatically via readers (outside the trap) or via operator control via a drawing. All statuses are displayed on the drawing. The display shows the following (note that the display currently displays all options and will never be in this state):








Doors show  when fully closed,  when fully open and  when neither.






 is displayed at the door while opening (controlled till fully open) and  is displayed at the door while closing (controlled till fully closed). If neither, no icon is displayed.

 is displayed when a vehicle is detected in the trap, at the door (beam or loop at each end). No icon is displayed if no vehicle.

While an entry or exit sequence is in progress,  or  in the centre of the trap displays the respective direction.

 button is available to clear a sequence (used when errors occur due to failed contacts or detection). No direction or button displayed if no sequence busy.

Reader icons display the current operator override status as enabled  or disabled . Disabled reader will not read cards. Operators enable or disable readers by clicking on the  or  buttons respectively. Note that while an entry or exit sequence is in progress, readers also ignore card.

Operators can also manually enter or exit vehicles by lock or unlock doors by clicking on the  or  buttons. The current status is indicated as  or . The operator control of the door is by the  button and no lock icon is displayed. While a door is in the operator lock or unlock stated, readers ignore cards.

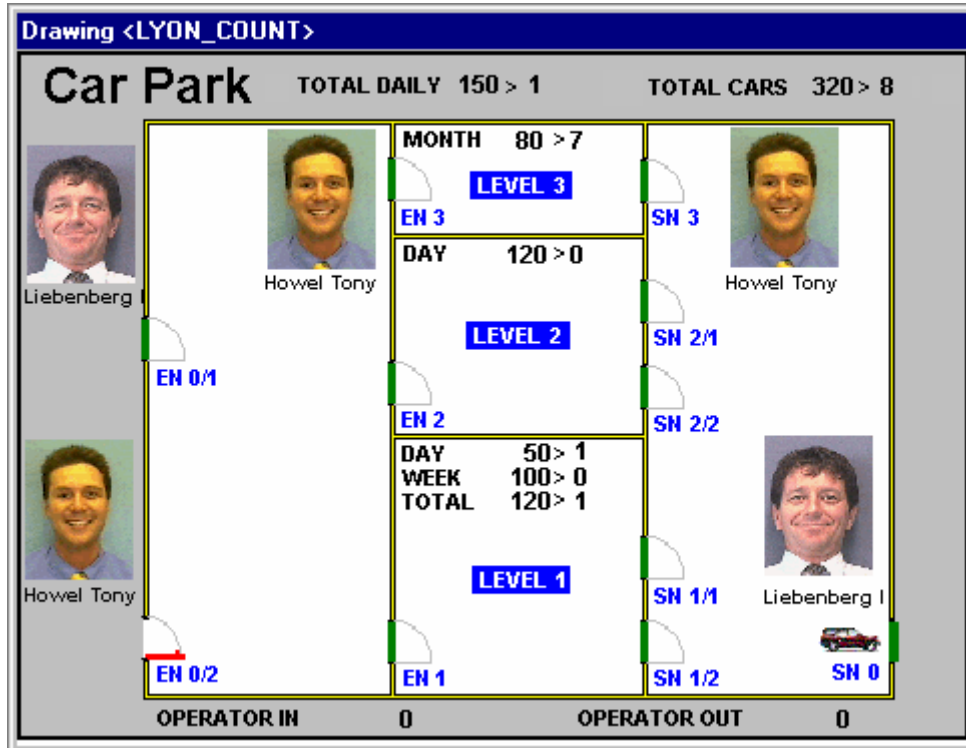
The automated functioning sequence is as follow: Normally no vehicles are in the trap, the doors are closed, doors not locked or unlocked by the operator and the readers are enabled. A card is tagged at the entry or exit reader (card number and holder's name are displayed) and if allows access, the door is controlled to opened (control stops when fully opened). Door opening, door status and direction arrows are updated. When the vehicle is detected at the second door (vehicle icon is displayed), the first door is controlled to close till closed, the second door is controlled till open and controlled till closed when the no vehicle is detected. All icons update as statuses change.

Operator manual control is by clicking in the appropriate unlock and lock buttons. These buttons only have effect when the other door is closed, not being controlled and no vehicles are detected in the trap to open fist door or vehicle must be at the second door op open the second door.

12.3 Vehicle Arcade - train station (France)

Weekly and **monthly** parkers using cards and **daily** parkers with-out cards can park in a 3-level Vehicle parcade. Level 1 has a maximum of 120 parking bays and allows up to 50 daily and 100 weekly parkers. Level 2 allows 120 daily parkers only and level 3 only allows 80 monthly parkers. A maximum of 150 daily parkers and a total maximum of 320 are allowed.

Two **parcade entry** barriers (EN 0/1, EN 0/2) with card readers allow access to the parcade and if parking is available for daily parkers, the barriers are open. The **parcade exit** (SN 0) has a barrier with card reader. Weekly and monthly parkers must tag cards, even when barriers are open.



Level 1 has one entry (EN 1) and two exit barriers (SN 1/1, SN 1/2), all with card readers. The entry barrier is open when day parkers are less than 50. The exit barriers are normally closed and also have ticket readers – daily parkers use their train tickets to get exit. Weekly parkers must use card on entry (else exit will not granted). Monthly parkers will not be granted exit.

Level 2 has one entry (EN 2) and two exit barriers (SN 2/1, SN 2/2) each with a ticket reader. The entry barrier is open if parkers are less than 120. Exit is via the ticket reader.

Level 3 as one entry (EN 3) and one exit barrier (SN 3) each with a card reader. The entry barrier is open if parkers are less than 80 and the card has access. Exit is via the card reader.

All statuses are displayed on the drawing shown above. The **photos** and names of month card holders are displayed when cards are tagged. The operator can open barriers by clicking on the appropriate barrier. The number of times the operator opens entry (in) barriers and exit (out) barriers are shown.

The status of the barrier is shown as open or closed .

The drawing below also shows open or closed status of the barriers and normal or alarm statuses for barrier door open, technical alarm and pole alarm.

The statuses of roller shutter gates are shown as when open or closed of as when neither (busy opening or closing). Roller gates automatically close for the night and open for the day.

Day is indicated with and night with .

The statuses of 3 train ticket dispensers show alarms for ribbon empty, money full, tickets empty and door open.

Fire extinguish alarms (CO and ECP) are displayed.

Other buttons provided are **REPORTS** – automatically runs a status report, **RESET APB** – clears Anti-passback (granting a free APB movement), **SILENCE** – clears the PC beeper alarm and **COUNT** – opens the counter drawing (above).

Défaut \ Rampe	EN 0/1	EN 0/2	SN 0	EN 1	SN 1/1	SN 1/2	EN 2	SN 2/1	SN 2/2	EN 3	SN 3
Technique											
Dégondage											
Effraction											
Ouv. Manuelle											

Défaut \ Dist Tick	DT 110	DT 111	DT 112
Bobine Vide			
Recharge Monnaie			
Caisse Pleine			
Effraction			



Défaut ECP	
Défaut Valid	
Défaut CO	



Position \ Grille	EN 0	SN 0	EN 1	SN 1	EN 2	SN 2
Ouverte						
Fermée						