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Smart Park

SmartPark is application designed for parking function control and management. It is used to handle functions from basic adjusments of controlled parking area, like settings for parking controller with its entrance and exit gates, followed by defining of ticket types, prices, user cards, up to various reports generation.

	≡ छ	🗲 🛱 Parking Con	troller 01 👻 🌐	100 TOTAL SPACES	\bigotimes	22 OCCUPIED SPACES	\oslash	78 Free spaces	English 🗸 🛃
	Entry gate	• U1			Exit gate	11			7 **
SmartPark	IP1: IP2:			6 6	IP1: IP2:			$\bigcirc \bigcirc$	
Ticket Code		Licence plate				Licence pla	ate		-
Ticket Code									
O DASHBOARD									
A									
 Administration 	Clear			View A	l Clear				View All
Cashier	Parking zon	ie - in			Parking zo	ne-out			
Cards	IP1: IP2:		\bigcirc	()	IP1: IP2:			() () €	A
🛷 Tickets		Licence plate	\bigcirc			Licence pla	ate		

On the application start page, there is dashboard with inspection of current traffic on the gates of controlled parking controller. In every moment, next to the left border of the displayed page, there is side menu with options which are discussed separately in the following sections of this document.

Parking controller is sector (zone, area) on the parking which is controlled separately from other parking zones (if exist). Usually, one parking has one parking controller. Even though, it is possible there are more than one parking controller on the parking, all controlled through same database. If there are more than one, controlled parking controller is chosen by drop down list beneath the upper border of the page. Next to parking controller name, there is display of total places available on parking controller, current number of occupied places and current number of free places.

≡ ደ ≉	寄	Parking Controller 01 🔹		100 TOTAL SPACES	\bigcirc	22 OCCUPIED SPACES	\oslash	78 FREE SPACES	English 🗸 🗧	
-------	---	-------------------------	--	---------------------	------------	-----------------------	-----------	-------------------	-------------	--

Left to the controller name, there are three commands used for (from left to right):

- □ fold and unfold of side menu,
- o logged user settings,
- checking of the connection to the controller, e.g. connection refresh.

On the other side of the screen, there is drop down list for choosing application interface language and sign out button.

Middle one of the three buttons is for settings related to logged user. By clicking the middle – user button, in the upper part of



side menu, panel is opened. In this panel, user can change own password, as well as make some work environment settings. Click on button "CHANGE YOUR PASSWORD" dialog is opened where old password is to be entered and new password afterwards. For password confirmation, new password should be entered twice (Password, than Confirm password textbox). Change is saved by click on the **Save** button.

Ujazna rampa	Parkine Controller 01 - 100 Change your password	23 077 FREE SP	ACES
	Old password Old password		
Administrato Administrator	Password Password		
CHANGE YOUR PASSWORD	Confirm password		
Ticket Code		Cancel	

Settings button from the same user panel, opens page with a list of all available active receipt printers. User can choose which one will be set as default printer. For every active printer there is printer name, parking controller it is assigned to, device type, address, communication port and device settings.

Default printer can be one of remote active printers or local printer attached to the computer. In both cases, default printer is set up by click on "**Set as default**" button, in corresponding line of the receipt printer table.



Beneath of the table of receipt printers, there are two additional buttons. First one is used to switch notifications popping on and off. The second one is to turn on and off printing of the card activation receipt.

Third button in the user panel is "**Clear cache**". It is used for reloading of the new settings in the cases when certain changes are made. All cached data are cleared and new values are loaded. It is possible to clear settings cache, as well as culture cache used for translation of the application interface.

Success Settings cache successfully	= A ≠ 🛱						English 🗸 🕽
Success Culture cache successfully							
-22	Receipt printers						
Administrator Administrator	Name	Parking controller	Device type	Address	Port	Settings	
Clear settings cache	Local printer	-					Set as default
Clear culture cache	Settings						

Administration

On the side menu, there are several emphasized command groups: administration, cashier, cards, tickets, reports, park station status and history clean up. By clicking on the command group name (label) in the side menu (when menu is unfold) or by mouse hover over the command group icon (when menu is in the fold state), options underneath the selected command group name are shown.

In command group called **Administration**, there are following commands: parking controllers, ticket types, prices, card settings, card templates, vouchers, stores, gate controllers, devices, barcode gate printer settings, settings, translations, users and user logs. In the following sections of this document, one by one commands from the Administration menu will be presented.

	= r 🍋 🗧	Parking Cont	roller 01 🔻	100 TOTAL SPACES	, (23 (IED SPACES		ACES	English 🗸 🗧
SmartPark	Parking contro	ollers								
Ticket Code	Search parameters									
∧ TICKET BILLING ∧			_		_					
Ticket Code	Parking controller	name	Active			Q Search	♀ Reset			
			All							
O DASHBOARD	↑ Name	†↓ Primary †↓Ad	Active Inactive	11 011	otal	†↓ Occupied spaces	↑↓ Total reserved spaces	d ↑↓ Occupied reserved spaces	Ð	Create
O Administration	Parking Controller 2	10.0.0	0.1 1010	http://lilic.in.rs/sp	1010	100	110	20	Reset	0 Û
Parking controllers Ticket Type	Parking Controller 01	 192.1 	68.1.210 5555	http://server.lilic.in.rs/sp/	100	23	0	0	Reset	0 Û
Prices	Range 1 - 2 From 2								10 •	1 >
Card settings Card Templates										

PARKING CONTROLLERS

As said before, parking controller is sector (zone, area) on parking which is controlled separately. This application page, shows overview of parking controllers defined in the system. In the upper part of the window there is search panel (the same page structure is used for all other pages of the application). Controllers are searchable by name or status (active or inactive). Click on **Search** button triggers searching by given parameters, while **Reset** button, clears all search criteria and brings back the whole list overview.

On this page, there are possibilities to define new parking controller by clicking the button **Create** and adjust the existing ones by click on the button with pencil icon (right in the line of particular controller display). Dialog opened while creating new parking controller has the same fields as dialog shown in the case of editing existing one.

In both cases, possibilities are offered for input and/or editing following parameters:

- Parking controller name assigned name distinguishes controller from other controllers in the system
- o Active (on/off) controller status which determines whether or not controller is currently in function
- Primary (on/off) parking controller with this property ON is shown by default after user logging on the application
- IP address, port, web link
- Total number of spaces in the parking sector
- Occupied spaces number of currently occupied spaces
- Total reserved spaces if there is possibility for space reservation, this is where number of such spaces is set
- Occupied reserved spaces how many of total reserved spaces are occupied.

Create parking controller		× FREE SPACES	Edit parking controller	× FREE SPACES
Parking controller Parko	ing controller name		Tr Parking controller Parking Controller 2	
Active			15 Active	
Primary			Primary	-
Address Addr	ress		Address 10.0.0.1	
Port Port		served 11 Occupied	Port 1010	Occupied
Jun Jru		20 Rest 2	Url http://lilic.in.rs/sp	20 Rest 2
2 Total spaces	0	0 Reset / D	2 01 Total spaces 1010	0 Reset 2 0
2 Occupied spaces	0	10 * < 1 >	2 Occupied spaces 100	10 * (1 >
Total reserved spaces	0		Total reserved spaces 110	
Occupied reserved spaces	0		Occupied reserved spaces 20	
Company name	Company name		Company name 1	
Company country	Company country		Company country 2	
Company city	Company city		Company city 3	
Company address	Company address		Company address 4	
Phone	Phone		Phone Phone	
	Save Cancel		Save C	ncel

Button resets devices connected to parking controller, while parking controller delete is done by clicking the far right icon in the controller line . Before deleting, dialog appears with request to confirm delete action.

TICKET TYPES

Ticket types command opens display which offers opportunities to overview, search, create and edit created ticket types.

	≡ ଌ ≉	Parking Contro	TOTAL SPACES		FREE SPACES	English 👻 🍕
SmartPark	Ticket Type	2				
Ticket Code	Search paramet	ers				
▲ TICKET BILLING ▲ Ticket Code	Name	A	lotive	Q Search C Reset		
O DASHBOARD	∱J Id	↓ Name	î↓ Primary	↑↓ Description	↑↓ Icon	Create
Ø Administration	• 6	Bicycle		Ticket for bicycle	Ť	0 Û
Parking controllers	• 47	Bus		Bus		Ø Û
Ticket Type	• 4	Car		Ticket for cars	•	0 Û
Prices	• 51	Day			-	00

Search can be performed by name or status (active or inactive). Display table has columns: *ID, Name, Primary, Description* and *Icon*. Table can be sorted with click on the column header. Status of the ticket can be recognized without entering its settings, according to the color of corresponding line in the table. Inactive types are color coded red, while left to the ID-s of those who are active there is green circle. Here, as well as in the previously presented command (and the same goes for all the rest commands in the application), button **Create** opens empty dialog for entering settings for the new ticket type, while button with pencil icon opens dialog with identical fields, but fulfilled with current settings of ticket type and gives possibility for their change.

	= ≗ ≠	Parking Controlle Edit ticket type	100	\bigcirc	23 ×	\bigcirc	77 FREE SPACES	English 🔸 🗧
SmartPark Ticket Code	Search parameter	Name	Car					
	Name	Primary						
		Active Bookable						
O DASHBOARD	t⊺iq	Price calculation unit	Hour	X 🔻			†↓ Icon	Oreate
O Administration	• 3	Price per day after N min	180				*	
Parking controllers Ticket Type	• 52	Icon	/Content/Images/vozila/auto.png				-	0
Prices Card settings	• 8	Description	Ticket for cars	1.			*	
Card Templates	• 44 • 51			Save	Cancel		•	
Stores	• 47	Bus		Bus				/ D

Fields for entering settings are:

- **Name** of the ticket type
- Primary (on/off) if this property is on, ticket type is considered default and is used for ticket price calculation when specific type is not set.
- o Active (on/off) status which determines whether certain ticket type is currently in use

- **Bookable** (on/off) whether is possible to make a space reservation for certain type of ticket (truck, vehicle...)
- **Price calculation unit** determines whether price is calculated based on the number of hours spent on parking or based on days.
- Price per day after N minutes if vehicle is parked for less than N minutes, parking price is calculated according to duration of stay (price per hour for every hour started). If vehicle stayed on the parking longer than N minutes, price of day ticket is charged.
- o Icon (path to file containing used icon) and Description of ticket type.

PRICES

As final price is calculated by multiplying price calculation unit by number of units (e.g. price per hour multiplied by number of hours), this is part of the application intended for overview and customization of existing and definition of new price units.

As prices can be defined differently for different ticket types, first search criteria displayed in the search panel is ticket type itself.

Further, in different parts of the day different price units are used for calculation. Considering this, search by time interval is enabled. **Valid From** and **Valid To** time are set by specifying hour-minute-second.

Additional criteria are active or inactive status of price per unit, whether price is fixed or not and the price amount itself.

	= & ø	Parking Cont	ro •	10 TOTAL SI) PACES	\bigcirc	22 OCCUPIED SPACES	Ø ,	78 REE SPACE	s	English 🕶	€
SmartPark	Prices											
Ticket Code	Search paramet	ers										
	Ticket type	•	16:08:17		0	V	alid To	Ū	Active			•
CHECK TICKET	Fixed price	•		~			Search 🗘 Rese	et				
 Dashboard 			16	: 08		17						
<u></u>										Ð	Create	
Administration Backing controllers	↑↓ Ticket type	↑Valid ↑↓Valid From To	*	~		*	↑↓ Applay after N minutes	↑↓ Charge free minutes	↑↓ Fixed price	î↓ Priority		
	• Car	00:00:00 23:59:59	100.00 0	0	0		0			1	Û	
Ticket Type	Day	00:00:00 23:59:59	1000.00							1	Ø Û	
	 Pacient 	00:00:00 23:59:59	0.00							1	Û	
Card settings Card Templates	• Car	00:00:00 23:59:59	0.00 3	0	0		30			1	Û	

Table for prices per units display has columns equivalent to parameters that need to be set while creating new and updating the existing prices. Table can be sorted by any of its columns by clicking on the column header. Settings for price are:

	≡ & ≠	Edit price			×	77 FREE SPACES
SmartPark	Prices	Ticket type	Putničko vozilo	Х Т		
Ticket Code	Search parameter	Valid From Valid To	00:00:00 (C) 23:59:59 (C)		0	Active
∧ CHECK TICKET ∧	Fixed price	Active 💽	Price	100.00		
🔿 DASHBOARD		Fixed price	Price per day	2000.00		
Administration	†↓ Ticket type	Priority 1	T		†↓ Charge fr minutes	ee ↑↓ Fixed ↑↓ price Priority
Parking controllers	• Putničko vozilo	First N hours	0			1 🖉 Û
Prices	Dnevna	Recurring on N hours	0			1 🖉 Ü
Card settings	Pacijent	Free N minutes	0			1 / Ū
Card Templates	Putničko vozilo	Applay after N minutes	0			1 🖉 🛈
Vouchers Stores	Range 1 - 4 From 4	Charge free minutes	\Box			10 - < 1 >
Gate controllers Devices				Save		

- Ticket type different ticket types defined by previously presented command can have different associated unit prices used for total price calculation. From drop down list one of the defined ticket types is chosen. Observed unit prices is associated with designated ticket type.
- Valid from starting time in the day (hour-minute-second) from which defined price is used for total price calculation
- Valid to ending time in the day (hour-minute-second) up to which defined price is used for total price calculation
- Active (on/off) parameter designates whether defined price is currently used for total ticket price calculations.
- **Price** amount used as price per calculation unit (if ticket is set to has *hour* as "price calculation unit", this would be price per hour)
- **Fixed price** (on/off) if parameter "fixed price" is set ON, amount given in the "price" field is used for charging, regardless of currently used pricelist on the entire system level.
- Price per day if price is calculated per hour and if valid ticket type has defined parameter "price per day after N minutes", this setting determines the day ticket price which is applied (this setting has no meaning in the case when associated ticket type has *day* set to be "price calculation unit")
- **Priority** is numeric value used to determine which price has priority while calculating total ticket price. This value is expressed as serial number, i.e. priority 1 is the highest of all first priority. If there are several rules defined in the system which are in "conflict" (e.g. time intervals in which certain price is valid are overlapping) price first used for calculation is one marked with lower priority number.
- First N hours first N hours can be charged at one price, while after N hours, some other price is defined.
- Recurring on N hours defined rule can repeat after each N hours (in case this value is e.g. 5, after 5 hours of stay, next 6th hour is charged same as 1st one, 7th hour is charged as 2nd and so on...)
- Free N minutes when vehicle enters parking, first N minutes are not charged. If user stays longer than N free minutes, parking is charged starting from the moment vehicle passed the entering gate (including first N minutes).

- Apply after N minutes (if set) defines time delay i.e. after how many minutes of stay, the rule will start to apply
- Charge free minutes (on/off) defines whether free minutes should be considered or not when calculating total price.

	E A ≠	Parking	Contro	• (100 TOTAL SPAC	ES	OCCUPIED SI	PACES	78 FREE SPACES	English 🗸
SmortPark Ticket Code	Search paramete	ers								
▲ TICKET BILLING ▲ Ticket Code	Card Code			Card Numbe	r		Card Type	•	Active	-
	Plate Num	ber		Vehicle grou	p		Ticket Type	•	Q Search	<⊅ Reset
O DASHBOARD									🛓 Export 🛛 👻	+ Create
	↑ Card Code	↑↓ Card Number	↑↓ Card Type	↑↓ Price	†↓ Use Card Price	↑↓ Plate Number	î↓ Ticket Type	î↓ Vehicle group	î↓ Allowed vehicle fo group	or.
Parking controllers	• 369369	336699	Template	1,000.00	v				1	Ø Û
Ticket Type Prices	• 303030303	30 5050	Postpaid	0.00						Ø 🗘
	• 202020202	20 2020202020	Prepaid	20.00						Ø Û
Card Templates	• 1231321	1	Postpaid	1,000.00		84184	Car	2	1	Ø Û
Vouchers	• 123123	0000123123	Template							Ø 🗘
Stores	• 1111111	122	Prepaid	125.25	~	BG125EL	. Motor	1	5	0 Û

CARD SETTINGS

User cars of various types are available in the system: prepaid, postpaid, as well as card created and issued according to predefined template. Card owner gets in and out of the parking by scanning the card, with no need to take bar-code ticket. After period of validity is expired, card should be returned to the operator.

Card settings command on **Administration** menu opens display whose upper part contains panel with search fields, while central part holds the table view of issued card. Card table is organized in pages. By default, 10 user cards are visible per page, even though this value can be changed by setting choice in drop down box beneath the lower right angle of the table, just next to buttons used for navigation through pages. Search through the list of card can be done by different parameters:

- **Card code** unique identifier saved in the card chip, "invisible" from outside without card reader.
- Card number number that is printed on the card. That is the number visible to the user and is used by operator to connect card to its code. By entering value in the filed for card code and/or card number, list of card starts to narrow down and only cards whose code/number starts with given characters will be displayed.
- Status of activity status can be active or inactive. In the table of cards, status of the card is color coded, i.e. cards that are inactive at the moment of inspection are displayed red, while active cards are marked with green circle in front of the corresponding table row.
- Card type can be set as one of three values in drop down list: template, prepaid or postpaid, or can be set to "unknown" in the situations when card type is not available or not important for the search.

- Plate number registration number of the vehicle for which the card can be used. Plate number field functions the same way as fields for card code or card number – each entered character additionally narrows list of cards, leaving only registration numbers that begins with entered set of characters.
- **Vehicle group** is category which is defined externally, out of the application and represents the common identifier for group of vehicles (e.g. vehicles owned by one company or client).
- **Ticket type** drop down list for choosing one of previously defined types of tickets. Ticket type definition is accessed from Administration menu by choosing <u>the command of the same name</u>.

Set criteria are applied by clicking the **Search** button. Button **Reset** clears all criteria and central part of the screen displays the overall list of cards.

Card table view can be sorted by mouse click on the column header. Columns in the table are equivalent to properties set in the process of creating the card.

List of issued cards can be exported to Excel or PDF file, depending on choice made in drop down button marked with the label **Export**. In exported list, cards are grouped by card type.

			Cards				
Range: Card Code:	, Card Number: -, Card Type: , Ac	tive: , Plate Number: , Vehic	le group: , Tick	et type:			
Card Type: Templat	te						
Card Code	Card Number	Price Use	Card Price	Plate Number	Ticket type	Vehicle group	Allowed vehicle for group
00000	101	101.45	Yes	NI1591IX	Motor	111	1001
000000005	5		Yes	NI123IK	Car		
000000006	000000006		No				
000000007	000000007		No				
8000000008	000000008		No				
0000123321	123321		No	P1009ML	Car		
0001111111	0001111111		No		Free parking area		
1010101010	1010101010	50,000.00	Yes				
123123	0000123123		No				
369369	336699	1,000.00	Yes				1
Card Type: Postpai	d						
						Vehicle	Allowed vehicle for
Card Code	Card Number	Price Use	Card Price	Plate Number	Ticket type	group	group
0000000001	000000000	0.00	Yes		Car		
1231321	1	1,000.00	No	84184	Car	2	1

Dialog for data input in the process of creating new card is equivalent to dialog opened by choosing the edit button (one with pencil icon) used to customize existing cards. Data needed for card creation or for editing cards, are equivalent to those used in search panel for filtering the list of cards.

Card code is entered once, during card creation and cannot be changed later. Rest of the card properties are changeable:

- Card number,
- Card type (prepaid, postpaid, template),
- o Status (active, inactive),
- Plate number,
- Ticket type (one of ticket types defined in system),
- Group (group is defined externally, out of the application and is used to be common identifier of particular group of vehicles).

• Allowed vehicles for the group – maximum number of the vehicles that belong to the same group and that are allowed to be at the parking at the same time.

Beside already mentioned, filed **Price** and switch **Use card price** (on/off) are available in the create/edit dialog. Switch defines which price per unit will be used for total price calculation – one from the card or one from global pricelist.

- If numeric value is set in the Price field and at the same time switch Use card price is turned ON, price defined on the card is used for total ticket price calculation, regardless of settings in global pricelist.
- If numeric value is set in the field **Price**, but switch **Use card price** is OFF, price from global pricelist is used for calculations, regardless of price on the card.
- If switch **Use card price** is ON, but there is no value set in the **Price** field, it is considered for the price to be 0.

SmortPark	Card setting Barking Con	troller 01 💌 🌰	100	23	77
Ticket Code	Edit card			×	
∧ TICKET BILLING ∧	Card Cod	00000			
Ticket Code	Card Code Card Numb	er 101		Active	•
	Card Ty	Template	X V		arch Q Reset
🔿 DASHBOARD	Activ	ve			
O Administration	↑ Card Code Pri-	ce 101.45		iicle ↑↓ Allowed group	d vehicle for
Parking controllers Ticket Type	000000007 Use Card Priv	ce 💽			<i>1</i> D
Prices	0000000006 000000005 Plate Numb	er NI1591IX			
	000000001 Ticket Typ	Motor	X ¥		/ 1
	00000 Vehicle grou	ıр 111		1001	0
	Range 11 - 15 Fron Allowed vehicle f	or 1001		1	0 • 《 1 2 》
	© 3030 SmartPark		Save	ancet	
Settings	© 2020 - Smartrank				

CARD TEMPLATES

Template type cards are customized in a way to have expiration date and defined period during the day when can be used for paying parking expenses. Searching through list of templates is possible by template name (it operates the same way as previously explained text searches – each entered character narrows the set of displayed card templates) and by template activity status (yes/no).

	= & ø <mark>f</mark>	Parking Contro	· •	100 TOTAL SPACES		22 ED SPACES	FREE SPACES	English 🕶	¢
SmartPark	Card Templat	es							
Ticket Code	Search parameters								
へ TICKET BILLING へ						(5			
Ticket Code	Name		Active	*	C Search	Ç) Reset			
∧ снеск тіскет ∧									
🔿 DASHBOARD								Create	
	↑↓ Name	$\uparrow \downarrow Validity \ Months$	$\uparrow \downarrow ValidityDays$	$\uparrow \downarrow Validity Hours$	$\uparrow \downarrow Valid From$	$\uparrow \downarrow Valid$ To	$\uparrow \downarrow Card Price \uparrow \downarrow Description$	tion	
⊗ Administration	 Business 7-16 	0	10	0	07:00:00	16:00:00	0.00	Ø Û	
	 test Night 	0	10	0	22:00:00	07:00:00	500.00 ddddddd	Û	
Ticket Type	 Month Card 	1	0	0	00:00:00	23:59:00	5,000.00	Û	

In the process of creating new or editing existing card template, dialog of identical structure is used (only difference is that dialog for creating new template appears empty, while one for editing previously created template is prefilled with current values for template). Following values can be set for each card template:

- o Template Name
- Validity duration given as number of Months / Days / Hours
- Valid From and Valid To are fields used to set the time period during one day (hour:minute:second) when cards of given template can be used for parking services.
- Card Price this is the real price of the card itself
- Active switch used to change template status
- Description

In the example on the picture below, there is template named "Night weekly". Template says that card has duration period of 7 days and can be used in evening and night hours from 20.00 pm to 08.00 am next day.

	= & # =	Parking Controller Edit Card Template	01 - (111) 9		×	FREE SPACES	English -
SmartPark	Card Templa	Name	Month Card				
	Search parameters	Validity Months	1				
tket Code	Name	Validity Days	0				
		Validity Hours	0				⊕ Create
) dashboard	†↓ Name				,	1↓ Card Price 1↓ Description	
Administration	Business 7-16	Valid From	00:00:00	٢		0.00	Ø 🗘
Parking controllers	test Night	Valid To	23:59:00	٢		500.00 ddddddd	0 Û
Tisket Type	Month Card					5,000.00	0 D
Prices	Week Card	Card Price	5000.00			2,000.00	0 Ū
Card settings	Business	Active				2,000.00	0 Û
Card Templates	Night Week	Description	Description			100.00 sadads	Ø Û
Vouchers	Day			11		3,000.00	00
Stores Gate controllers	Range 1 - 7 From 7			Save	e Cancel	10 -	< 1 >
Devices		_					

VOUCHERS

In certain circumstances (e.g. purchase made in particular shop in shopping mall), users can be granted a vouchers which can be used for parking service payments.

Vouchers have code and serial number. Each voucher has unique code, while all vouchers in the series, have same serial number. Code and/or serial number can be set as search parameters to look for particular voucher or group of vouchers whose codes or serial numbers start with given set of characters. Search can be performed according to voucher status:

- **Available** designates that voucher is created in the system, but not yet printed. By default, when created, voucher has status Available.
- o **Issued** this is status that voucher gets when it is printed
- **Used** voucher awarded to client and used for service payment
- Blocked blocked prior to utilization

Search can be performed by date of creation, as well as date of utilization. Time based search assumes that start and/or end date is set to specify period during which voucher is created (Creation date from, Creation date to) or used (Used date from, Used date to). Button **Search** triggers search according to set parameters and filters the list of vouchers. Button **Reset** removes all search criteria and shows the whole list of vouchers.

	= & ¥ 🛱	Parking Controller	t 🕀 🛨	.00 SPACES		3 D SPACES	77 FREE SPACES	English 🗸
SmartPark	Vouchers data							
Ticket Code	Search parameters							
↑ TICKET BILLING ↑	Code		Serial number		Status	Ŧ		
	Creation date from		Creation date to		Used date from	Ē	Used date to	Ē
🔿 DASHBOARD	Q Search 🗘 Rese	t						
(x) Administration								
Parking controllers	↑ Code	†↓ Status	†↓ Serial number	†↓ Amou	int ↑↓ Created by	≛ Export ↑↓ Used date	✓ Edit Creation date	Create
Ticket Type	99297232290523729923	Used	2123333323	1000.	00 admin		18.03.2019 23:03:43	0 Û
Prices	97727193423720960006	Available	2123333323	1000.	00 admin		18.03.2019 23:03:43	0 Û
Card settings	74485278539081830405	Blocked	880000000000	1002442.	00 admin		18.03.2019 23:03:43	0
Card Templates	94979475394312130561	Issued	880000000000	1002442	.00 admin		18.03.2019 23:03:43	0 0
Vouchers Stores	96320860494303662087	Available	2123333323	1000.	00 admin		18.03.2019 23:03:43	0 Û
Cata controllars	95152275913762652163	Blocked	fjghjfgj	0.	00 admin		15.02.2019 15:27:34	0 D
Devices	82749376982680606721	Issued	02072019	100.	00 admin		13.02.2019 00:50:04	0 0

Vouchers are created by click on the button with same name (Create). Dialog is opened with following fields to fulfill:

- Number of vouchers how many vouchers are to be created in series.
- Amount voucher is equivalent to this amount of money. Resources on voucher can be used to pay parking services.
- Serial number created vouchers belong to series with given serial number.
- Status default status is Available

⊘ DASHBOARD	Q Search Cro	Parking Controller	01 •	100	23	FREE SPACES	
Administration Parking controllers		Number of vouchers	Number of vouchers		ے۔ Eq	port 👻 🖉 Edit	🕀 Create
Ticket Type	† Code 992972322905237	Amount	0.00		d date	the ft Creation date 18.03.2019 23:03:43	0 Û
Prices	977271934237209	Serial number	Serial number			18.03.2019 23:03:43	1 D
Card settings Card Templates	975294460140898	Status	Available	X ¥		18.03.2019 23:03:43	0
Vouchers	964922672839397			Saua	Cancel	18.03.2019 23:03:43	
Stores	95480782033424691205	Available	11112222	10.00 admin	Cancer	15.02.2019 23:03:43	0

Voucher created in the system can be changed by clicking the button with pencil icon, right in the corresponding table row. Voucher editing mean the change of voucher status. Instead of changing one by one, change can be applied to whole series. Bulk change is done by clicking button **Change**, left to button **Create**. Dialog is opened with a **Serial number** field used to enter and pick series and afterwards set **Status** for whole series.

DASHBOARD	Q Search Ed	lit voucher			×	FREE SPACES	
		Serial number	2123333323		Le Export	- C Edit	⊕ Create
	† Code	Status	Used	X ¥	d date	↑↓ Creation date	
	992972322905237					18.03.2019 23:03:43	l V
	977271934237209			Save Can	cel	18.03.2019 23:03:43	Ø Û
	9752944601408985088	Available	2123333323	1000.00 admin		18.03.2019 23:03:43	0 Û
	96492267283939778564	4 Available	2123333323	1000.00 admin		18.03.2019 23:03:43	0 1

STORES

On the page that is opened by click on the **Stores** command on **Administration** menu, there is a list of all stores authorized to reward clients with a vouchers. As every other entity in the system, list of stores can be searched through by setting characteristic parameters. Parameters that describe store are **Store Code** and **Store Name**. Next to search boxes designed for setting these parameters, there is drop down list that enables search by status (status shows whether store is active or not).

	= 요 🖋 🛱 Par	king Controller 01 👻 🌐	100 STOTAL SPACES	23 OCCUPIED SPACES	FREE SP	English -
SmartPark	Stores					
Ticket Code	Search parameters					
∧ TICKET BILLING ∧						
Ticket Code	Store Code	Store Name	Activ	re	▼ Q Search	Ç) Reset
∧ CHECK TICKET ∧						
						⊕ Create
C7 BASHBOARD	†↓ Store Code	†↓ Store Name	$\uparrow\downarrow$ Store Description	†↓ D	iscount Minutes	
	• 1234	Forum	Forum Store	60.0	0	0
Parking controllers	• 123	Idea	Idea Store	90.0	0	0 Ū
Ticket Type	• 1269	Roda	Roda Store			0 0
Prices	• 1267	Delta	Delta Store			<i>l</i> 0
Card settings	• 1265	Usce	Usce Store			0 Ū

Store creation dialog has fields intended for code and name input, switch to determine store activity status, and text fields for **Description** and **Discount minutes**. Discount minutes are, similarly as vouchers are, way for stores to award customers for purchase. By showing fiscal bill to prove purchase, client is entitled to get discount for parking services. Before calculating total parking ticket price, time spent on parking is diminished by value of this parameter.

If there is a need to change parameters of some previously created store, button to enter edit mode is button with pencil icon. In the edit store dialog it is possible to change described parameters, all but store code which is immutable.

	E & ≠	Edit Store	01 -	100	\bigcirc	23 ×	FREE SPAC	English 👻 🕣
SmartPark	Stores	Store Code	1234					
Ticket Code	Search parameters	Store Name	Forum					
Ticket Code	Store Code	Active					Q Search	() Reset
O DASHBOARD	†↓ Store Cod	Description	Forum Store				Discount Minutes	Create
Administration	• 1234	Discount Minutes	60.00			c	00	/ t
Parking controllers	• 123	4				•	00	
Ticket Type Prices	• 1267				Save	Cancel		/ t
Card settings	1265	Usce		Usce Store				00

GATE CONTROLLERS

Page which is opened by selecting **Gate Controller** command on **Administration** menu is intended for creation, editing and search gate controllers for each defined parking zone (parking controller). Search can be performed by gate name, gate type (entrance gate or exit gate) and by status (active, inactive or all regardless of status). Button **Search** click applies set criteria of filtering, while **Reset** loads the complete list of gates and clears parameters from search fields.

	≡ £ ¢	Parking	; Controller 01 🔻		100 FOTAL SPACE	S	\bigcirc	2 OCCUPIE	2 D SPACES	\oslash	78 FREE SPACES		English v]
SmartPark	Gate controll	ers												
Ficket Code	Search parameters													
												4		
icket Code	Name		Gat	е Туре		*	Activ	re		T	Q Search	(;) Reset		
												Ð	Create	e
OASHBOARD	î↓ Ticket type	†↓ Name	î↓ Parking controller	†↓ Gate Type	†↓ Gate code	î↓ Address	†↓ Port	↑ Display index	†↓ Settings	†↓ Description				
	•	Entry gate U1	Parking Controller 01	ENTRANCE GATE	11	127.0.0.1	5001	20					0	ð I
Parking controllers Ticket Type	•	Entry gate U2	Parking Controller 01	ENTRANCE GATE	12	127.0.0.1	5002	19					0	ð
Prices	•	Exit gate I1	Parking Controller 01	EXIT GATE	0	127.0.0.1	5002	10					0	ם נ
Card settings	•	Exit gate 12	Parking Controller 01	EXIT GATE	0	127.0.0.1	5003	9					0	đ
Vouchers	•	Exit gate I3	Parking Controller 01	Exit Gate		127.0.0.1	5007	8		ррр			0	đ

At the beginning of every row in the table, circle of corresponding color marks active (green) and inactive (red) gates. Inactive gates in the system are additionally emphasized with text colored orange in the corresponding row of the table. In the column **Gate Type**, by color as well as by symbol, is pointed out whether certain gate is entrance gate or the exit gate. Remaining columns in the table are consistent with the settings made in the process of gate creation and customization. Click on the column header sorts table rows by content in clicked column (one click sets ascending order, second click on header arranges rows in descending order).

	≡ & ≠	Create gate contro	ller	× 77 FREE SPACES
SmartPark	Gate control	Gate controller name	Name	
Ticket Code	Search parameters	Parking controller name	Parking Controller 01 *	
Ticket Code	Name	Active		
		Gate Type	Gate Type 💌	
Ø DASHBOARD	†↓ Ticket	Gate code	Gate code	Splay ↑↓ ↑↓ ex Settines Description
 Administration 	•	Ticket type	Ticket type 💌	
Parking controllers Ticket Type	•	Address	Address	0
Prices	•	Port	Port	/ 0
Card settings Card Templates	•	Display index	Display index	0
Vouchers	•	Settings	Settings	ррр 🖉 🗘
Stores Gate controllers	Range 1 - 5 From 5	Description	Description	10 🕶 🔍 1 🚿
Devices				

Button Create click opens dialog with fields created to input the following data for new controller:

o Gate controller name – symbolic name assigned to the gate

- Parking controller name if there are more than one <u>parking controller</u> (independent zones) in the system, by choice made in this drop down list, gate is assigned to corresponding controller.
- Active switch which changes gate status from active to inactive and vice versa.
- Gate type shows whether gate is entrance or exit.
- Gate code two starting digits which are used to code tickets issued on specific gate (for example, code that starts with 11 marks tickets printed on first entrance gate, 12 is second entrance gate...).
- Ticket type this parameter should be set for entrance gates. If choice is made for this parameter, all vehicles that enter parking through considered gate, by default gets a ticket of chosen <u>ticket type</u> (vehicle, van, truck, bus...)

ſ		≡ ደ 🖋	Parking Controller 01			100 TOTAL SPACES	\bigcirc	22 OCCUPIED SPACES	\oslash	78 FREE SPACES	English 🗸	Ð
		Entry gate U1			Exit ga	ite l1		F	Exit gate	13		
ŀ	Ticket Code	IP1: 🚗 IP2: Licenc	e plat	ð	IP1:	IP2: Licence plat	(1		IP1:	IP2: 🚗 Licence plat		
	∧ TICKET BILLING ∧											
E	Ticket Code											
L												
	O DASHBOARD											
	③ Administration	Clear		View All	Clear			View All	Clear			View All
	🗗 Cashier	Parking zone - i	n		Parkin	gzone - out						
l	Cards	IP1: IP2:	e plat		IP1:	IP2: Licence plat						
	🛷 Tickets											
	I Reports											
L	Park station status											

- Display index number which affects display order for gates on the Dashboard page. Gates with higher values in the field of **Display index** are positioned up and left, while gates with lower display index are displayed right and down in the **Dashboard page.** E.g. if <u>all gates in the example</u> have active status (two entrance and three exit gates), thanks to display index, Dashboard page will look like shown on the above picture.
- o Address and port sets network address and port for communication with gate controller
- Settings and description text fields to input additional settings and descriptions, if needed.

Edit mode for existing gate controller is entered by click on the button with pencil icon. On the opened page all above settings can be adjusted. Change is made after click on the **Save** button.

	😑 🔒 🌶 🛱 Parking Contr	oller • 100 TOTAL SPACES	OCCUPIED SPACES	T7 English ▼ English ▼
SmartPark	Edit gate controller _{© Back}	to list		
Ticket Code	Gate controller name	Parking controller name	Gate Type	Active
∧ TICKET BILLING ∧	Entry gate U1	Parking Controller 01 *	Entrance gate	x •
ficket Code	Gate code	Address	Port	Display index
^ CHECK TICKET ^	11	127.0.0.1	5001	20
	Ticket type	Settings	Description	
(1) DASHBOARD	X 🔻	Settings	Description	
 Administration Parking controllers 	Save	l. li		le .
Ticket Type Prices	Devices			
Card settings	Park Pay Station 01 × 🔻	⊕ Add		
Card Templates	†↓ Name	↑↓ Device type	↑↓ Address	s ↑↓ Port ↑↓ Description
Vouchers	 Park Pay Station 01 	Parkomat Type 01	P2	Û
Stores	 Štampač priznanica 	Receipt printer datecs LP5	0	сомб 🗘
	 Barcode printer na rampi U1 - 1 	Printer Custom VKP80III		сом4 🗘
Devices	Barrode printer na rampi U1 (Citize	an) Printer Citizen PPLI 700	102 168 1 2	212 9100

Lower part of this page (page for editing gate controller) contains panel called **Devices**. List of every device associated with certain gate is shown. Associated device can be removed from the gate (released) by click on the button with trash can icon. New devices are "connected" to the gate by choosing device in the drop down list followed by click on **Add** button.

Prices	Devices				
Card settings	Park Pay Station 01 × 🔺	Add			
Card Templates		↑↓ Device type	↑↓ Address	$\uparrow \downarrow Port \uparrow \downarrow Description$	
Vouchers	Park Pay Station 01 P2 (null)	Parkomat Type 01	P2		
Stores	Park Pay Station 02	Receipt printer datecs LP5	0	COM6	
Gate controllers	Receipt printer	Printer Custom VKP80III		COM4	
Barcode gate printer	null (COM6)	i) Printer Citizen PPU 700	192.168.1.212	9100	

DEVICES

On the page opened by Devices command on the Administration menu, list of all devices in the system is displayed showing device characteristics. List of devices can be filtered by device **Name**, by **Gate** device is assigned to, by **Device type** (printer, bar code scanner, display...), as well as by status of activity (active, inactive or all regardless to status).

	≡ £ ≠ 🛱	Parking Controller 01	1 •	100 TOTAL SPACES	6	OCCUPIED SPACES	\oslash	78 FREE SPACE	S	ish ▼
SmartPark	Devices									
icket Code	Search parameters									
	Name		Gate			evice type		Active		7
icket Code	Q Search ()	Reset								
	(otal till	neber -	Searching	A	Ba	arcode scanner Serial	Î	All		
DASHBOARD			Entry gate U1 127.0.0.1 (5001)		Pr	arcode scanner TCP rinter Zebra ZPL		Active Inactive		
	† Name	↑↓ Parking ↑↓ Gate	Entry gate U2 127.0.0.1 (5002) Exit gate 11	1	↓ Pr	rinter Citizen PPU 700		1	1↓ Description	.e
Parking controllers	VoucherPrinter	Parking Controller	127.0.0.1 (5002) Exit gate 12		Pr 10	rinter Custom TG2460H	J.	ate=115200 rashPaperTime=2	0	Û
Prices		01 Parking	VKP8UIII			DirectComm=1 QRCodeSize=1				
Card settings	Receipt printer	Controller 01	datecs LP50	c	ОМ6				0	Û
Card Templates Vouchers	Park Pay Station	Parking Controller 01	Parkomat Type 01	P1					Ø	Û

Dialog for new device creation and dialog for editing existing ones are the same, with the difference that first one appears empty, while the other is prefilled with current values for considered device.

SmartPark	Park	ting Controller 01 -	0 () 23		
Ticket Code	Edit dev Search parameters	ice	×		
	Name	Name Display on exit		Active	v
🔿 DASHBOARD	Q Search Parking	controller Parking Controller 01	v		
Output Administration	Gate	controller izlazna rampa l1	X 🔻		
Parking controllers		Active			① Create
Ticket Type Prices	↑ Name D	Gate display SmartPark type	01 × •	, †↓ ort †↓ Settings Descript	ion
Card settings	Štampač pri			DM6	0 Û
Card Templates	Park Pay Sta	Address 192.168.1.217			00
Vouchers Stores	Park Pay Sta	Port 4440			0 Û
Gate controllers	LPR ulaz U1	Setting Setting			0 Ū
Devices Barcode gate printer	LPR izlaz 11	escription Description	10	011	Ø 0
settings	Display na iz		li li	440	0 Û
Settings Users	Dipley slobc		Save	AddressInCan=00 00 00 05	0 Û
User logs	• dddd	Controller 01 11 Pai	rkomat Type 01 192.168.0.19 80)	10

Device settings are:

- Name symbolic device name
- Parking controller and gate controller parking zone and gate to which device is connected
- Status of activity switch to choose whether the device is currently in use or not.
- Device type one of available device types in the system
- Address and port network address and port for communication with device
- Setting and Description text fields used to input additional settings and descriptions, if needed.

BARCODE GATE PRINTER SETTINGS

This command opens list of all receipt printers. Beside name, for every barcode printer on the gate, it is possible to see which parking controller the printer is assigned to, device type, port and printer settings (settings determines paper width, margin, height and width of barcode, barcode position...)

	= & 🖌 🛱	Parking Contro	oller 01 🔻 🌐	total	00 SPACES	\bigcirc	23 OCCUPIED SPACES	\oslash	77 FREE SPACES	English v
SmartPark	Receipt printers									
DASHBOARD										
Ø Administration	Name	Parking controller	Device type	Address	Port Sett	ings				
Parking controllers	Barcode printer U2	Parking Controller 01	Printer Custom VKP80III	192.168.2.33	5000 Pap	erWidth=56	LeftMargin=10			Configure
Ticket Type	Barcode printer U1 (Citizen)	Parking Controller 01	Printer Citizen PPU 700	192.168.1.212	9100 Pap Baro	erWidth=80 odeWidth=	0 LeftMargin=8 BaudRate 3 BarcodeXPosition=4 Tra	=115200 Bard ashPaperTime	codeHeight=80 e=5	Configure
Prices	Barcode printer	Parking	Printer Custom		сом4 Рар	erWidth=56	LeftMargin=0 BaudRate=	115200 Barco	deHeight=10	Configure
Card settings	U1 - 1	Controller 01	VKP80III		Baro	odeWidth=	3 TrashPaperTime=2			compare

For every active barcode printer there is button marked with **Configure** which exposes three actions: **Printer test**, **Trash paper forward** and **Trash paper backwards**. In case when ticket is printed, but not picked up from the printer, there are two options: ticket can be thrown out of printer or there is possibility to retract ticket back into the device. Behavior in case of unused tickets is defined by click on middle or far right button in edit settings dialog.

	Ecceint print	23 77 FREE SPACES English • •
Ticket Code	Printer test Trash paper forward Trash paper backwards	
∧ TICKET BILLING ∧	Name	ок
Ticket Code	Barcode printer na rampi Parking Printer Custom 192.168.2.33 5000 PaperWidth=56 Left U2 Controller 01 VKP80III 192.168.2.33 5000 PaperWidth=56 Left	Margin=10 Configure

SETTINGS

Command **Settings** displays a list of system settings with assigned values, description and provides a possibility of changing current values.

Some of available settings are:

- Lost ticket price
- Default discount minutes
- Ticket template
- Date and time format
- Leaving time ...

	↑ Setting	↑↓ Setting Value	↑↓ Setting Description	
Parking controllers	Ticket.StoreTicketOnIssuing	0	Store ticket on issuing	0
Ticket Type Prices	Ticket.OpenRampWhenTickedIsPulled	0	Open ramp when ticket is pulled	0
Card settings	Ticket.LostTicketPrice	500	Lost Ticket Price	0
Card Templates	Ticket.LeavingTime	2	Vehicle leaving time (min)	0
Vouchers Stores	Ticket.DiscountLeavingTime	30	Vehicle leaving time (min) for discount. Otherwise customer	6
Gate controllers			need to pay Lost ticket price	
		<\$PARKING_NAME\$><\$PARKING_ADDRESS\$><\$PARKING_CITY\$> Datum: <\$ENTRY_DATE\$> Vreme:		
Users	Template.Ticket	<sentry_time\$> Reg. broj: <splate_number\$> <sbc_ean13\$> Sacuvajte ovaj tiket radi naplate parkiranja. Naknada za izgubljeni ili osteceni tiket iznosi <slost_tckt_price\$> <\$CURR_CODE\$> . Za</slost_tckt_price\$></sbc_ean13\$></splate_number\$></sentry_time\$>	Ticket template	0

Editing settings assumes update of setting value, while setting description and name cannot be changed.

	Search parameters	Edit Setting		×		
) DASHBOARD	Setting	Setting	Template.Ticket			
		Setting Value	<pre><\$PARKING_NAME\$> <\$PARKING_ADDRESS\$></pre>	<u>^</u>		
	↑ Setting		<\$PARKING_CITY\$>		1↓ Setting Description	
	Ticket.StoreTicket		Datum: <sentry_dates></sentry_dates>		Store ticket on issuing	0
	Ticket.OpenRamp		Vreme: <sentry_times> Reg. broj: <splate_numbers></splate_numbers></sentry_times>		Open ramp when ticket is pulled	0
	Ticket.LostTicket		<\$BC_EAN13\$>	-	Lost Ticket Price	0
	Ticket.LeavingTin				Vehicle leaving time (min)	0
	Ticket.DiscountLe	Setting Description	Ticket template		Vehicle leaving time (min) for discount. Otherwise customer	0
				Save Cancel	need to pay Lost ticket	

USERS

List of created user accounts can be accessed by click on **Users** command of Administration menu. Users can have following roles in the system, starting from the bottom level role i.e. role with the lowest permissions:

- \circ Cashier
- Supervisor
- Administrator

List of the users can be searched by user name or by role that user has in the system.

	= & ¥ 🗧	Parking Controller 01 👻	100 TOTAL SPACES	OCCUPIED SPACES	FREE SPACES	English 🗸
SmartPark	Users					
Ticket Code	Search parameters					
▲ TICKET BILLING ▲ Ticket Code	Username	Role	Ŧ	Q Search Ø Reset		
C DASHBOARD	↑ Username	†↓ Email	†↓ Role	1↓ Registration date	†↓ Last activity	🕀 Create
	 tesssss (ssss) 	lilicmilan@gmail.com	Cashier	24.12.2019 14:59:51		ê 🖉 🛈
Parking controllers	 nadzor (Nadzor) 		Supervisor	17.01.2020 11:50:18		ê 🖉 🗘
Tickat Type	 kasir (Pera Peric) 	pera@gmail.com	Cashier	28.01.2019 23:36:45		ê 🖉 🗘
Prices	 kasa (kasa01) 		Cashier	10.08.2019 11:48:56		8 🖉 🗘
Card settings	 admin (Administrato 	r) admin@smartpark.com	Administrator	22.01.2018 00:00:00	22.01.2018 00:00:00	ô / Û

In the process of user account creation, administrator is expected to provide following data:

- User name name of the user in the system
- Full name first and the last name of the user. First column in the user table marked as "Username" contains user name followed by full name in the brackets.
- o E-mail address
- Status can be active, inactive (created, but not yet verified), blocked (was active, but now is deactivated for some reason)
- o Role cashier, supervisor or administrator
- Password for security reasons, next to the password field, there is additional field for password confirmation. For password to be accepted, value entered into those fields have to be exactly same.

		Parking Controller	01 - 100 nt	\bigcirc	23 ×	FREE S	SPACES	Engli	sh 🕶 🔇
SmartPark	05615	Username	Username						
	Search parameters	Full name	Full name						
Ticket Code	Username	[mail]							
		Status	Email	× v					
ᢙ dashboard	† Username	Role	Cashier	x *		†↓ Last activity		⊕ (lreate
	• tesssss (ssss)							5 0	Û
	nadzor (Nadz	Password	Password					0	Û
	kasir (Pera Pe	Confirm password	Confirm password		_			5 0	Û
	kasa (kasa01)				_			0	Ú
	 admin (Admir 			Save	Cancel	22.01.2018 00:00:00			Ŭ
Card Templates	Range 1 - 5 From 5						10 -	« 1	*

For existing user it is possible to update full name, e-mail address, to assign new status to the user, as well as change authorization level by assigning role different from previous.

		Parking Controller 0 Edit user account		100	23	×	\odot	77 FREE SPACES	En	glish 🗸 🗧
SmartPark Ticket Code	Users	Full name	SSSS							
	Search parameters	Email	lilicmilan@gmail.com							
Ticket Code		Status	Active		× v					
(?) DASHBOARD	tilicorramo	Role	Cashier		X V		tillastas		÷	Create
Administration	tesssss (ssss)				Save Car	ncel	↓ Last at	avity	8 /	Û
Parking controllers	nadzor (Nadzor) kasir (Pera Peric)	pera@g	mail.com	Supervisor Cashier	17.01.2020 11:50 28.01.2019 23:36	:18 :45				Ŭ

Next to the left edge of the Edit button (one with pencil icon) which exists for every other entity in the system, there is additional button marked with lock icon. This button is used for password reset. It opens dialog where new password is to be entered. Unlike password change as described at the beginning <u>of this document</u> which refers to the situation when logged user wants to change his/hers own password, this is where administrator can reset password for any user in the system.

	≡ £ ¢ <	Parking Controller 01 -	100	23	×	77 FREE SPACES	English 🕶 🗲
SmartPart	Users	Password Password					
	Search parameters			Save Can	cel		
Ticket Code	Usemaine						
							Create

USER LOGS

Last in the list of the commands on Administration menu is User logs. It opens page with detail review of activities for each user. For each user, regardless to assigned permissions, all actions are logged: settings changed, transaction created, profile updated... User activities are organized in the table with columns:

- Time date and time when action is performed
- Action identification of performed action. The actions that are logged in the system are:
 - discount action
 - API booking action
 - API ticket action
 - clear data action
 - <Close> button (one step payment)
 - <Pay> button (one step payment)
 - <Close> button (two step payment)
 - <Pay> button (two step payment)
 - <Close> button (two step payment second step)
 - <Pay> button (two step payment second step)

- button action click,user account action
- settings action
- transaction action
- ticket action
- booked ticket action
- card action
- card template action
- card turnover action
- price action

- User name identifies user who triggered the action
- Description gives details about an action. E.g. for each ticket payment two logs are registered...
 - Ticket action in the description column there is log "Parking payment Ticket payment (Price: xxx, ID: xxx)"
 - *Transaction action*, in description it is noted "Parking payment Create transaction (Price: xxx, ID: xxx)" ext.

	E 100 CCUPIED SPACES OF FREE SPACES English]
SmariPark	User logs	
	Search parameters	
Parking controllers	Action	
Ticket Type Prices	Date From 🗰 Date To	
Card settings	Q.Search OReset	
Card Templates	0000 00 000	_
Vouchers	0:56:39 Settings action admin Settings cache successfully cleared (Username: admin)	
Stores Gate controllers	06.02.2020 0C#507 05.02.2020 <close> button (two step payment admin Button action click (Ticket number: 980205224810, Amount: 500.</close>	.00
Devices	06.02.2020 00:57:57 Settings action admin Settings cache successfully cleared (Username: admin)	_
Barcode gate printer	06.02.2020 00:56:39 Settings action admin Settings cache successfully cleared (Username: admin)	-
settings	05.02.2020 22:51:17 < Close> button (two step payment - second step) admin Button action click (Ticket number: 980205224810, Amount: 500.00)	
Settings	05.02.2020 14:25:36 <close> button (one step payment) admin Clic pe buton actionare (Numar tichet: 980202090145, Suma: 7.950,00)</close>	
Translations	05.02.2020 14/25:09 <close> button (one step payment) admin Clic pe buton actionare (Numar tichet: 980202090145, Suma: 7.800,00)</close>	

Logs can be searched by action type, activity description, user who triggered action and time interval during which the action is performed.

Dashboard

Dashboard command on the application side menu, opens review of all active gates on chosen parking controller. Gates are displayed in order that is specified by <u>gate code</u>. When vehicle approaches the entrance gate and step on the first inductive loop IP1, green car is shown on the screen as signal of the activity on the gate. When customer pushes the button (first picture) log "button is pressed on the gate" appears, followed by notification which refers to issued ticket number. Similar situation is when customer uses card to enter the parking. Ticket is not issued, bur card is scanned and log appears with showing of card number ("card 'xxxxxxxxx' is used on the gate).



At the same time, with each vehicle passed through entrance gate, in the list of active tickets one record is added. This record saves information about issued ticket number, which gate the ticket is printed on, time of printing, card type. If customer entered the parking by printing ticket, column *Card type* shows "barcode ticket". Anyway, ticket is marked as not paid and indicator that vehicle with particular ticket or card number is "<u>in the</u> <u>parking area</u>". On the ribbon docked to the top edge of the screen, displayed number of free spaces for appropriate parking controller is decreased.

													🕹 Export
Tickets Ticket archive)	î↓ Ticket number	†↓ Entry gate	î↓ Entry time	↓ ↑↓ Is Price paid	†↓ Cash	†↓ Card	†↓ †↓ Payment Check time	†↓ Plate Number	†↓ Ticket type	†↓ Card Type	†↓ Cashier	
Inactive ticket		3030303030		16.12.2019 14:48:21						Car	Postpaid		Û 🛇
Reports		110117024256		25.12.2019 11:34:18						Car	Barcode ticket		Û 🛇
Park station status		111021222821	Ulazna rampa U1	21.10.2019 22:28:21							Barcode ticket		Û 🛇

If needed, it is possible to raise and put down the ramp with *Ramp up* (f) and *Ramp down* (g) buttons on the dashboard. In the case of "manual" ramp opening, it is necessary to provide reason for such action: ticket not valid, ticket lost, charge at exit, announced admission or other.

	Anual gate opening	100	22 ×	78 English
SmartPare	IF	2. LOST TICKET	3. CHARGE ON EXIT	
	4. ANNOUNCED ADMISSION	5. OTHER		
O DASHBOARD	Ci		Parking zona - izlaz	View All

Two more available buttons are button for enabling and disabling entrance gate, and button for "manual" ticket printing.

	≡	ম	ø	寄	Parking Controller 01	L Ŧ		100 TOTAL SPACES
SmartPart	En	try ga	te U1					
Ticket Code	IP1:		IP2:	æ				
∧ TICKET BILLING ∧						Li	cence plate	
Ticket Code					⊙ 🕹 €]	3	

When vehicle steps on the second inductive loop IP2 red car is shown, ramp goes up and vehicle enters the parking.

In system settings, minimum time is defined that should pass between two subsequent presses on the button for printing tickets at the entrance gate. If customer presses button multiple times, with interval between two

presses shorter that specified minimum, request for printing will be ignored. If repeated button press occurs after minimum time interval between two tickets issuing elapsed, ticket will be issued and printed normally.

If vehicle is NOT on the first inductive loop and button for ticket printing is pressed, log appears "button is pressed on the gate, but vehicle is not on the inductive loop".

	= A 🖋 🛱 Parking Controller 01 🔻 🌐	100 TOTAL SPACES
SmartPart	Entry gate U1	
Ticket Code	IP1: IP2:	6
∧ TICKET BILLING ∧	Licence	plate
Ticket Code		
	A Taster je pritisnut na rampi, ali se vozilo ne nalazi na induktivnoj petiji	1/17/2020, 2:47:17 AM
	1 Taster je pritisnut na rampi.	1/17/2020, 2:47:17 AM
	A Taster je pritisnut na rampi, ali se vozilo ne nalazi na induktivnoj petiji	1/17/2020, 2:47:13 AM
	1 Taster je pritisnut na rampi.	1/17/2020, 2:47:13 AM
C7 DASHBOARD	A Taster je pritisnut na rampi, ali se vozilo ne nalazi na induktivnoj petiji	1/17/2020, 2:47:10 AM
	 Taster je pritisnut na rampi. 	1/17/2020, 2:47:10 AM
~	A Taster je pritisnut na rampi, ali se vozilo ne nalazi na induktivnoj petiji	1/17/2020, 2:47:09 AM
Administration	🟮 Taster je pritisnut na rampi.	1/17/2020, 2:47:09 AM

At the exit gate, there are two inductive loops to register approach and passing through the gate. Signalization of stepping on and off the inductive loops is same as one on the entrance gate.

After vehicle steps on the first inductive loop, it is necessary to scan ticket or card. Log appears on corresponding gate "Ticket 'xxxxxxxxx' is scanned on the gate". If scanned ticket is not paid for, warning pops up on the screen showing the information which ticket and on which gate tried to exit without paying. Attempt is saved as gate log "Ticket number 'xxxxxxxx' not paid".

If ticket is paid, ramp goes up, vehicle goes over second inductive loop and leaves the parking area. That is the moment when ticket goes from active to archived tickets and indicator that vehicle is no longer in the parking area is set. Automatically, number of free spaces increases.

Parkine Controller 01 - 100 23	CCUPIED SPACES	Ð
Exit gate I1	Exit gate I1	
Ticket with number '110117025215' is not paid	110117025215 Licence plate	
m 1001		7 AM 7 AM

After ticket payment is done, customer has certain time to leave the parking. This time interval is set on the system level. If approved time is exceeded, customer has to pay additional amount for the time elapsed from the moment when previous payment was done. It is regulated in a manner that new ticket with the same number is formed, with time of entrance equal to payment time for the first ticket (original ticket with leaving time exceeded).



Described situation is illustrated on the picture bellow. When paid, ticket stays in the <u>list of active tickets</u> until vehicle is in the parking area. If leaving time limit is exceeded, customer is charged with additional ticket that covers up parking fee starting from the moment of previous up to the moment of new payment. In other words, application is handling this case as if vehicle left the parking at the moment first bill was paid, and immediately after that entered parking again.

After additional cost is covered, both tickets (with same number) goes to <u>ticket archive</u>. First one for which leaving time was exceeded (lower one of the two marked on the picture) has empty column "Exit gate" because based on that ticket no vehicle has left the parking area, while "Exit time" column shows value equal to "Payment time".

Second ticket with identical number has "Entry time" equal to "Payment time" of the first ticket. Payment time for the second – automatically generated ticket is real time when second payment is made. If vehicle left the parking within designated time limit, column "Exit gate" displays which gate had been used for exit (this is case in the picture below).

47	Tickets																	*	Export	
	Tickets Ticket archive	†↓ Ticket number	†↓ Entry gate	↑ Entry time	î↓ î. Price p	↓ Is aid	†↓ Cash	†↓ Card	†↓ Check	†↓ Payment time	†↓ Plate Number	†↓ Ticket type	†↓ Card Type	†↓ Cashier	†↓ Exit gate	†↓ Exit time				
	Inactive ticket Reports	11011702460	6 Entry gate U1	17.01.2020 04:04:34	100.00	¥	100.00	0.00	0.00	17.01.2020 04:11:17		Car	Barcode ticket	admin	Exit gate I1	17.01.2020 04:11:52	6	0	~	
a	Park station status	11011702425	6 Entry gate U1	17.01.2020 03:51:42	100.00	8	0.00	100.00	0.00	17.01.2020 03:55:55		Car	Barcode ticket	admin	Exit gate I1	17.01.2020 03:56:15	6	0	~	
	History cleanup	11011702425	6 Entry gate U1	17.01.2020 03:47:00	100.00		100.00	0.00	0.00	17.01.2020 03:51:42		Car	Barcode ticket	admin		17.01.2020 03:51:42	ß	P	~	
		11011702490	8 gate U1	17.01.2020 03:40:27	100.00	8	100.00	0.00	0.00	17.01.2020 03:44:17		Car	Barcode ticket	admin	Exit gate I1	17.01.2020 03:45:04	6	0	~	

CHECK TICKET and TICKET BILLING (from dashboard)

On the application side menu, just above Dashboard button, there are two text fields used to input the ticket code for the ticket to be checked or charged. If ticket is not paid yet, typing ticket number in the textbox just above **Ticket billing** button, followed by click on this button, opens dialog for charging parking service (same dialog appears when charging is performed through **Cashier** menu or via **Ticket** menu by click on ticket number in the first column).

	Parking payme	2 Parking Controller	01 -	100	\bigcirc	23	77 × ³	English 🗸 🚽
				Total bill for t	icket 9802061	183810: 700.00		
	Car	Day Patient		Cash	700.00			
Ticket Code	Exit gate Ticket name	Car		Card	0.00	Switch		*
	Card Type	Barcode ticket	Activate Discount	Check	0.00	Switch		
Ø DASHBOARD	Ticket number	111226110820		Ticket number	9802061838	10		•
⊗ Administration	Entry time	17.01.2020 01:52:15		Total bill:	700.00			
🗂 Cashier	Payment time	17.01.2020 07:15:06		Paid Amount:	700.00			
Ticket billing	Parking time	5 hours, 35 minutes		Change:	0.00			
Lost ticket	Price	0.00			Use	vouchers	_	
Transactions Cards		Show prices		Scan voue	cher code:			
🏘 Tickets								Ŭ 🛇
I Reports	110111024	000 ramos 111 14-20-52				Close	Pay	Û O
Park station status	111030125	Ulazna 30.10.2019 953 rampa Ul 12:59:53				Barcode		ΰØ

If entered number corresponds to ticket which is paid for, click on **Ticket billing** button triggers announcement docked to upper edge of the screen with inscription "*Status: Ticket 'xxxxxxxx' was already used*".

Marning Status: Ticket '110117160726' was already used.				
TICKET BILLING		v		

Typing ticket or card number in the textbox above "**Check ticket**" button and subsequent click on the button displays information about selected ticket. If the debt is not paid yet, **Ticket info** dialog shows ticket/card type, status "*Vehicle is in the parking area*", ticket status "*Ticket "xxxxxxxxx' is active*" and entry time.

		Parking (Contro • 100	\bigcirc	22 ×	\odot	78 FREE SPACES	English 🕶 🗧
SmortPark	Tickets	Ticket number	960129193350					
Ticket Code	Search pa	Card Type	Barcode ticket					
Ticket BILLING	Ticket	Ticket type	Car			•	Payment type	•
∧ снеск тіскет ∧	Payme	Status	Vehicle is in the parking area					
	Ticket T	Ticket Status	Ticket '980129193350' is active			•	Entry gate	T
() DASTIDUARD	Change n	Entry time	29.01.2020 19:37:52					
 Administration 	returned	Is paid	Yes					
Cashier	Qs	Payment time	29.01.2020 19:43:05					
Cards		Price	100.00					
🛷 Tickets			Show prices					L Export →
I Reports	number				ок	e Cas	hier	
Park station status	980203185913	18:59:24	0		vozilo tic	-code ket		Û 🛇

If debt is settled, ticket info shows status "Vehicle is not in the parking area" and ticket status "Ticket "xxxxxxxxx' was already used".

	≡ ₽	Ticket info		×	\bigcirc	FREE SPACES
SmartPark	Ticket a	Ticket number	110117024256			
Ticket Code		Card Type	Barcode ticket			
^ TICKET BILLING ∧	Search pa	Ticket type	Car			
Ticket Code	licket	Status	Vehicle is not in the parking area		× v	Payment type
	Payme	Ticket Status	Ticket '110117024256' was already used		•	Card Types 💌
🔿 DASHBOARD	Entry	Entry time	17.01.2020 03:51:42			Exit time (to)
	Users	Exit time	17.01.2020 03:56:15		•	Change not O
Administration		Is paid	Yes			
🗗 Cashier		Payment time	17.01.2020 03:55:55			
Cards		Price	0.00			
🛷 Tickets			Show prices			
I Reports						ᆂ Export 🛛 👻
Park station status	†↓ Tickel			ок	Card ↑↓ e Cas	î↓ Exit_î↓Exit shier_gate_time

Cashier

Commands on **Cashier** menu can be used to perform ticket charging, lost ticket charging and overview of transactions in the system.

TICKET BILLING

Execution of **Ticket billing** command opens *Enter ticket* dialog with textbox for input number of ticket/card to be charged.

O DASHBOARD	= 2 ¥ 🛱	Parking Controller 0	1 •	100	\bigcirc	22 ×	\odot	78 FREE SPACES	English •
Administration	Transactions	Ticket Code	110117025215						
	Search parameters				Close	Submit			
	Transaction type	•	Payment type	•					
Cards	Q Search Ø	Reset							

Button **Submit** opens "Parking payment" dialog. Price that is automatically displayed in payment dialog refers to default ticket type (usually that is a passenger vehicle). When charging a bill, operator can change default <u>ticket type</u> with the actual one – passenger vehicle, truck, day ticket... According to chosen ticket type, price is determined as basis for total debt calculation.

	Parking payment										×	En	glish -
SmartPark	Car	Day Patient					Total bill for t	ickot 1101	17040121:4105	0.00			
								ICKEL IIUI	17040131.4103	Switch			
	Exit gate						Cash	41050.00)				
	Ticket name (Car		Activato	Discount		Card	0.00		Switch			
	Card Type	Barcode ticket		Activate	Discount		Check	0.00		Switch			
	Ticket 1 number	110117040131					Ticket	1101170	40131				
	Entry time 2	20.01.2020 17:34:08					number						
	Payment time (06.02.2020 18:06:32					Plate Number	Plate Nu	mber				
	Parking time 1	17 days, 0 hours, 32 minut	es				Total bill:	41050.00					
	Price	\$1050.00					Paid Amount:	41050.00					
		Hide prices					Change:	0.00					
	Time from	Time to	Price	Hour	Day	*			Use vouchers				
	20.01.2020 17:34:00	20.01.2020 18:33:00	100.00	1									
	20.01.2020 17:34:00	06.02.2020 18:06:00	150.00	0	0	-	Scan vou	cher code:					
										Close	Pay		

If customer made a purchase in some of the stores that are registered in the system, parking discount can be approved by entering the receipt number. Discount is activated by press on the corresponding button (Activate discount). Dialog is opened where name of the store should be specified, as well as invoice number as proof of purchase.

	Parking Controller 0 Activate Discount	- ₩		×	9	Parking payme	nt
	Store	Roda	× *			Car	
ters	Invoice number	123456789				Exit gate	
	Description	Description			-	Ticket name Card Type	Car Barcode ticket
e fro			li di			Ticket	110117040131
			Save	Cancel		Entry time	20.01.2020 17:34:08
-	Entry gate	Entry gate U1				Payment time	06.02.2020 18:15:25
	Entry time	20.01.2020 17:34:08				Parking time	17 days, 0 hours, 41 minutes
	Is paid	No	a	Printticket		Discount	120.00 minutes
				_		Price	40850.00
				ок			Show prices
A1 5-1-				1 Ticket 11 Card	41		

By discount activation, button **Activate discount** is no longer available (because only one discount can be activated per ticket). Beneath parking time note which shows total time spent on parking, approved discount appears expressed as minutes. In this dialog, bellow parking time, price and (possibly) discount, there is **Show prices** button which opens details specification for price calculation.

Cash	40850.00	
Card	0.00	Switch
Check	0.00	Switch
Ticket number	110117040131	
Plate Number	Plate Number	
Total bill:	40850.00	
Paid Amount:	40850.00	
Change:	0.00	
	Use vouche	rs
Scan vou	cher code:	

Right part of the dialog is used to specify payment method (cash, card or check). As discount can be aworded in a form of voucher as well, button **Use vouchers** enables text field where number of voucher can be entered and the final price is reduced by value of the voucher. Button **Pay** triggers the transaction and create transaction log.

									📥 Export	→ ⊕	Crea
†↓ Id	†↓ Parking controller	†↓ Username	†↓ User shift	↑ Transaction time	↑↓ Transaction type	1↓ Description	†↓ Amount	†↓ Cash amount	†↓ Card amount	†↓ Check amount	
50812	Parking Controller 01	admin	FIRST	06.02.2020 18:27:09	CREDIT	Parking payment ()	40,850.00	40,850.00	0.00	0.00	Ø

LOST TICKET

In the situation when customer loses ticket or card, some fixed amount is charged. This amount is defined in application <u>settings</u>. Price is constant, defined in application settings and entry time on the ticket is noted to be equal to the time when lost ticket is generated.

	E A ≠ E	Parking Controller 01 Charge lost ticket	• 100	\bigcirc	22 ×	\bigcirc	78 FREE SPACES	English 🗸
SmartPark		Entry time	06.02.2020 18:30:16					
Ticket Code	Search parameters	Price	500.00					
Ticket Code	Transaction Id			СІ	ose Pay			
^ CHECK TICKET ^	Transaction type							

In dialog opened by pressing command **Ticket** → **Lost ticket** on the side menu, two buttons are available: **Pay** and **Close**. Button **Close** cancels lost ticket generation, while button **Pay** opens "**Pay lost ticket**" dialog. Operator is expected to specify method of payment. If customer pays for the lost ticket right away, which is confirmed by one more click on **Pay** button, ticket is registered in the list of active tickets marked as "paid" and entry time equal to payment time. Customer has defined leaving time to exit parking area.

As for paying regular ticket, voucher can be used when to pay price of a lost ticket as well. That's way button **Use voucher** is available in this dialog. If pressed, text field for voucher code input is opened.

	= 2 4 4	Pay Lost Ticket		100	_	22 ×	s	7 FREE S	8 PACES	English	• e
SmartPark	Transactions	Total bill for ticke	t 9802061838	10: 500							
Ticket Code	Search parameters	Cash	500.00		Switch						
Ticket Code	Transaction Id	Card	0.00		Switch						
	Transaction type	Check	0.00		Switch						
🔿 DASHBOARD	Q Search	Ticket number	9802061838	10							
Administration		Total bill:	500.00								
 Cashier Ticket hilling 	†↓ Parking †↓ Id controller	Paid Amount:	500.00				†↓ Cash amount				
Lost ticket	50812 Parking Controller 01	Change:	0.00				40,850.00				
Transactions	50811 Parking Controller 01						6,650.00			0	Ŭ
Cards	50810 Controller 01	Scan	voucher code:	Use vouchers			100.00				
Tickets	50809 Parking Controller 01	Stan	voucher code.				0.00			0	Û
Reports	50808 Parking Controller 01				Close	Pay	100.00				
Park station status	Parking		04.02.2020		Activate Card Turn						

															🛓 Export	
†↓ Ticket number	†↓ Entry gate	↑ Entry time	↑. ↑↓Price pa	, Is aid	†↓ Cash	†↓ Card	†↓ Check	†↓ Payment time	†↓ Plate Number	†↓ Ticket type	†↓ Card Type	↑↓ Cashier				
980206183810		06.02.2020 18:48:24	500.00	V	500.00	0.00	0.00	06.02.2020 18:48:24		Car	Lost ticket	admin	Ø	Û	\otimes	~

In the picture above, generated ticket of "lost ticket" type is shown. Ticket price was charged at the same time the ticket was created, so payment time is equal to entry time. Status "vehicle is in the parking area" is set (until vehicle leave parking area through exit gate). From the moment the payment is done, customer has system defined time to drive the vehicle out of the parking area.

TRANSACTIONS

Command **Transactions** on **Cashier** submenu allows review, filter and export the list of all transactions made in the system. For each transaction facts to be saved and displayed are:

- Transaction ID unique identification of transaction
- Parking controller parking area (parking zone) where service is provided and charged
- Username operator who made the transaction
- User shift work shift when transaction is made (first, second, third)
- Transaction time date and time of charging
- o Transaction type "credit" is tag for bill collection, "debit" marks transaction of change return
- Description
- Amount total amount and the next three columns with specification of payment method (cash amount, card amount, check amount)

	≡ ⊽	* 早	Parking Con	itroller 01 🔻		100 TOTAL SPACES	\bigcirc	22 OCCUPIED SPACES	\oslash	78 FREE SPACE	s	English •
SmartPark	Trans	actions										
icket Code	Search	parameters										
← TICKET BILLING ←	Tran	saction Id		Us	ers	-	Transa	ction time from		Transaction	time to	
	Trans	action type		• Pag	yment type		Ticket	id				
🔿 DASHBOARD		Search 🗘 Res	set									
S Administration										♣ Evnort	- •	Cre
Cashier	†↓ Id	†↓ Parking controller	†↓ Username	†↓ User shift	↑ Transaction time	†↓ Transaction type	†↓ Descriptio	î↓ n Amount	†↓ Cash amount	†↓ Card amount	†↓ Check amount	
Ticket billing Lost ticket	40634	Parking Controller 01	admin	FIRST	17.01.2020 17:57:54	CREDIT	Activate Card over	Turn 3,000.00	3,000.00	0.00	0.00	0
Transactions	40633	Parking Controller 01	admin	FIRST	17.01.2020 17:57:37	DEBIT	Cancel card ac on	3,000.00	3,000.00	0.00	0.00	0
Cards	40632	Parking Controller 01	admin	FIRST	17.01.2020 17:57:15	CREDIT	Activate Card over	Turn 3,000.00	3,000.00	0.00	0.00	0
IICkets Reports	40631	Parking Controller 01	admin	FIRST	17.01.2020 17:57:04	DEBIT	Cancel card ac on	tivati 3,000.00	0.00	0.00	3,000.00	0
Park station status	40630	Parking Controller 01	admin	FIRST	17.01.2020 16:44:26	CREDIT	Activate Card over	Turn 3,000.00	0.00	0.00	3,000.00	0

At the end of each row in the table there is button for updating values regarding corresponding transaction \checkmark . All values that describe transaction can be changed, except parking controller and ticket ID. Beside edit button, in each row, there is a button which can be used to delete transaction \circ .

	= 2 # 🛱 R	Edit transaction	100		×PACES	\oslash	78 FREE SPA	CES	Englis	sh 🗸
SmartPark	Transactions	Parking controller name	Parking Controller 01	Ŧ						
Ticket Code	Search parameters	Username	admin	¥						
Ticket Code		User shift	First	× •						
	Q Search O Reset	Transaction type	Credit	× *						
O DASHBOARD		Transaction time	17.01.2020 17:57:54	Ē						
Administration					_		📩 Expor	t - 	С	reate
🖾 Cashier	\uparrow ↓ Id \uparrow ↓ Parking controller \uparrow ↓	Amount	3000.00		t ↑↓ C	ash amount _↑↓	. Card amount _↑↓ Cl	heck amount		
Ticket billing	40634 Parking Controller 01 add	Cash amount	3000.00		p	3,000.00	0.00	0.00	Ø	Û
Lost ticket	40633 Parking Controller 01 add	Card amount	0.00		D	3,000.00	0.00	0.00	0	Û
Transactions	40632 Parking Controller 01 add	Charles	0.00		D	3,000.00	0.00	0.00	0	
L] Cards	40631 Parking Controller 01 add	Check amount	0.00		0	0.00	0.00	3,000.00	0	
🛷 Tickets	40630 Parking Controller 01 ad	Description	[[ActivateCardTurnover]]		D	0.00	0.00	3,000.00	0	U
Reports	40629 Parking Controller 01 add			1	D	3,000.00	0.00	0.00	0	U
Park station status	40628 Parking Controller 01 ad	Ticket id	Check amount		D	3,000.00	0.00	0.00	0	
History cleanup	40627 Parking Controller 01 add				D	3,000.00	0.00	0.00	0	
	40626 Parking Controller 01 kas			Save Can	cel P	100.00	0.00	0.00	0	0
	40625 Parking Controller 01 add	nin FIRST 1	7.01.2020 12:56:06 CREDIT	Activate Card Turnover	3,000.00	3,000.00	0.00	0.00	0	Û

Tickets

This menu has three commands: Tickets, Ticket archive and Inactive ticket.

TICKETS

Page, opened by pressing **Tickets** command, as its central content has list of active tickets. Active tickets refer to the vehicles which are still inside the parking area, whether paid or not. When vehicle comes to entrance gate, ticket is created and printed, ramp goes up and vehicle enters the parking area. Created and printed ticket is registered in the list of active tickets on this page. Following values are saved and displayed for each ticket:

- Ticket number number of printed ticket or number of the user card used to enter the parking area
- Entry gate name of the entry gate customer used to get into the parking
- Entry time date and time vehicle passed the gate. From this time forward, total price calculation period starts
- Price amount to be paid. Price is calculated at the moment customer requests to be charged.
- o Is paid tag that determines whether payment is done or not
- Cash amount paid in cash
- Card amount paid by cards
- Check amount paid by check
- o Payment time date and time the bill collection is done
- Plate number vehicle registration number
- o Ticket type one of many ticket types defined in the system is chosen during payment process

- <u>Card type</u> if customer entered the parking by user card, type of card is displayed in this column. If customer entered by printing ticket on entrance gate, in this column there is inscription "barcode ticket"
- o Cashier operator who collected the bill

	= & 🖌 🛱	Parking Contro	oller 01 👻 🧯		100 TOTAL SPACES		\bigcirc	2 OCCUPIEI	2 D SPACES	\oslash		78 FREE SPACES		English 🗸	
SmartPark	Tickets														
Ticket Code	Search parameters														
Ficket Code	Ticket number		Plate Nu	nber			Is pai	id		Ŧ		Payment type		Ŧ	
^ СНЕСК ТІСКЕТ ^	Payment time from	iii	Payment	time to	6	1	Entr	ry time (from)				Entry time (to)			
C DASHBOARD	Ticket Type	Ŧ	Card Type	5		*	Users	S		Ŧ		Entry gate			Ŧ
S Administration	Change not returned														
Cashier	Q Search Ø	Reset													
Cards															
🖗 Tickets													4	Export 👻	
Tickets	†↓ Ticket ↑↓ Entr number gate	ý ↑Entry time	†↓ Is †↓ Price paid	†↓ Cash	†↓ ↑ Card Chec	î↓Pay time	ment	†↓ Plate Number	î↓ Ticket type	†↓ Card Type	†↓ Cashie	2r			
Inactive ticket	980206183810	06.02.2020 18:48:24	500.00	500.00	0.00 0.0	06.02.2	2020 24		Car	Lost ticket	admin		Û	0	
I Reports	980203184237	03.02.2020 18:46:18							Car	Barcode ticket			Û	\otimes	
Park station status	980202090219	02.02.2020 09:02:40							Car	Barcode ticket			Û	0	

Right in the row of each active ticket there are three buttons whose purposes are (right to left):

- manual" ticket transfer to archive in the situations when transfer is not performed automatically (e.g. customer did not show at the pay desk yet)
- o delete ticket
- o payment cancelation

Ticket cancelation is performed for example, in the case of mistake during payment. Canceling ticket reset ticket price to zero and in the list of transactions opposite transaction is generated (transaction of type "debit") to annul primary transaction (of type "credit").

																	Бхр	
		†↓ Ticl	ket †↓ Entry			†↓ Is		↑↓	$\uparrow \downarrow$	†↓ Payment	†↓ Plate	†↓ Ticket	†↓ Card	$\uparrow \downarrow$				
	Ticket archive	numb	er gate	↑ Entry tim	e î↓ Price	e paid	†↓ Cash	Card	Check	time	Number	type	Туре	Cashier				
	Inactive ticket	98020	5183810	06.02.2020 18:48:24	0.00	V	0.00	0.00	0.00	06.02.2020 18:48:24		Car	Lost ticket	admin		0 Û	\otimes	
d	Parking																	
			†↓ Parking	î↓	†↓ User	↑ Transa	ction	†↓ Trans	action			î↓	†↓ Cash	↑↓ C	Card	†↓ Check		
	Ticket billing	î↓ Id	†↓ Parking controller	†↓ Username	†↓ User shift	↑ Transa time	action	†↓ Trans type	action	†↓ Descript	ion	†↓ Amount	†↓ Cash amount	†↓ C amo	Card ount	†↓ Check amount		
	Ticket billing Lost ticket	†↓ Id 50814	†↓ Parking controller Parking Controlle 01	†↓ Username admin	†↓ User shift FIRST	↑ Transa time 06.02.20 19:18:22	20	†↓ Transa type DEBIT	action	†↓ Descript Payment ca on	ion ncelati	†↓ Amount 500.00	†↓ Cash amount 500.00	†↓ C amo	Card ount 0.00	†↓ Check amount 0.00	0	
	assner Ticket billing Lost ticket Transactions	↑↓ Id 50814 50813	↑↓ Parking controller Parking Controlle 01 Parking Controlle 01	†↓ Username admin admin	↑↓ User shift FIRST FIRST	 Transa time 06.02.20 19:18:22 06.02.20 18:48:24 	120 120	†↓ Trans: type DEBIT CREDIT	action	†↓ Descript Payment ca on Parking pay	ion ncelati ment ()	1↓ Amount 500.00 500.00	†↓ Cash amount 500.00 500.00	†↓ C amo	Card ount 0.00 0.00	†↓ Check amount 0.00 0.00	0	

Upper screenshot in the picture above shows canceled ticket with price reset to zero, and the lower one shows corresponding transactions of credit and debit type.

Details about ticket are displayed in dialog which pops-up when clicked on the ticket's or card's number in the first column of the table. If ticket is not charged, dialog like one on the picture below appears providing some info (ticket/card number, ticket ID, card type, ticket type, status which tells whether vehicle is in the parking area, entrance gate and entrance time). Also, couple of buttons are available. Button **Copy** copies ticket number into clipboard so it can be pasted into any field for search by ticket number. Button **Print ticket** sends ticket to printer (after ticket is charged, below button used to print ticket, another button appears for printing receipt – **Print receipt**).

Change not	licket details		^				
returned	Ticket number	980121221554 Copy Charge tick	et				
-(Scarch	Ticket id	d404dd4a-0273-4e5b-839a-a875d4a70690					
	Card Type	Lost ticket					
	Status	Vehicle is in the parking area					📥 Export
î↓Ticket î↓En number gate	Entry time	21.01.2020 22:15:54	Print ticket	↑↓ Card Type	↑↓ Cashier		
980121221935	Is paid	No	Print receipt	Lost ticket	admin		Û 🔍 🗸
980121221554				Lost ticket		ß	ΰO
			ок	Lost	kasa		ΰQ

Button **Charge ticket** opens dialog for parking payment – same as one that is opened by command **Ticket billing** on the **Cashier** menu (described in previous chapter). After providing information needed for payment, followed by click on the button **Pay**, display of the charged ticket in the list of active tickets is updated with checkmark which indicates that ticket **Is paid** for, with information about payment method and about type of ticket. Starting from moment of payment, customer has defined time (for example 15 minutes) to drive the vehicle out of the parking area. In that period, ticket stays in the list of active tickets – i.e. as long as vehicle is in the parking zone, corresponding ticket is in the set of active tickets.

	111226110820	Entry gate U1	27.01.2020 15:13:37	24,650.00	☞ 24,650.00	0.00	0.00	06.02.2020 19:36:34	Car	Barcode ticket	admin		Ø	Û	0	~	1
--	--------------	---------------------	------------------------	-----------	-------------	------	------	------------------------	-----	-------------------	-------	--	---	---	---	---	---

In the right side of the table row where ticket is listed, two more buttons appear. Button with pen icon *lease* is used for editing data about payment method (cash, card, check), while button *equivalence* opens insight into details about all transactions that refers to the particular ticket.

	Ticket number	111226110820		
	Entry time	27.01.2020 15:13:37		
	Payment time	06.02.2020 19:36:34		
	Price	24650.00		- 1
†↓	Cash amount	24650.00	•	
En ga	Card amount	0.00		IS
En ga U1	Check amount	0.00		In
				In

One of possible scenarios is that parking meter doesn't return change to the customer. In that case, in the list of active tickets one more button with inscription **Return change** is visible for the observed ticket. Such tickets in the list of active tickets are emphasized with orange color.

†↓ Ticket number	†↓ Entry gate	†↓ Entry time	†↓ Price	†↓ Is paid	†↓ Cash	†↓ Card	†↓ Check	↑ Payment time	î↓ Plate Number	†↓ Ticket type	†↓ Card Type	†↓ Cashier		
980129111837		29.01.2020 11:19:20	500.00	V	-100.00	500.00	100.00	29.01.2020		Car	Lost ticket	kasa	Ŭ G	
980129111619		29.01.2020 11:16:49									Lost ticket	kasa	Ŭ G	
		29.01.2020 11:15:29				(Û G	Q Return change
		29.01.2020 11:09:40			De		'n	bango					Ŭ Ø	Q Return change
980129105453		29.01.2020 10:55:29			Ne	tui	ΠC	nanye	-		Lost ticket	kasa	Û G	
		29.01.2020 10:54:39							,				Û G	Q Return change
980129092328		29.01.2020 09:24:13			Cance	:		Return char	ige		Lost ticket	admin	Ŭ G	
980129090633		29.01.2020 09:08:07	500.00	⊻	500.00	0.00	0.00	09:08:07		Car	Lost ticket	admin	Ŭ G	

By confirmation of change return, in the list of all transactions for this ticket, next to **Parking payment** transaction, transaction **Return change** is created. Thereby, for each transaction username of the operator who made the transaction is logged.

†↓ Ticket	†↓ Entry		†↓ †↓ Deies ani	ls ↑↓	¢↑	†↓ Cheele	†↓ Payment	†↓ Plate	⊺↓ Ticket	†↓ Card	l ↑↓ Carbier			\int
980129111441	29 11	.01.2020 :15:29	500.00	☑ Cash	0.00	200.00	29.01.2020 11:15:29	Number	Car	Lost ticket	kasa			\mathbf{r}
Id Parkir	ng controller	Userna	me Usersh	nift Transa	tion tim	e Tra	ansaction type	Descripti	on	Amount	Cash amount	Card amount	Check amount	
40805 Parkin	g Controller 0	1 kasa	FIRST	29.01.2	20 11:15	:29 🛛	REDIT	Parking p	ayment	600.00	400.00	0.00	200.00	
50816 Parkin	ig Controller 0	1 admin	FIRST	06.02.2	020 19:42	:58 🗖	EBIT	Return ch	iange	100.00	100.00	0.00	0.00	
980129110809	29 11	.01.2020 :09:40	500.00	☞ 500.00	0.00	200.00	29.01.2020 11:09:40		Car	Lost ticket	kasa	Image: A state of the state	j 🛛 🗸	Q Return change

Pressing Export button generates Excel or PDF file containing table of tickets which can be downloaded.

Above the list of active tickets, as it was in the case of previously described entities, there are controls for setting search criteria. Searching is possible by: ticket number, plate number, according to status of payment (paid or not), by payment method, entering time, payment time, ticket type, card type, user (operator) who made a charge, entrance gate and by parameter which "says" if there is change to return. When search is made by time of entry or payment, it is possible to set the interval to search within.

In the case of lost ticket, customer has to pay some fixed price defined in the application settings. When customer pays the price of lost ticket, item is generated in the list of tickets with entry time equal to payment time, column entrance gate has no value, but as vehicle is in the parking area, ticket is inserted into list of active tickets.

TICKET ARHIVE

Ticket from active goes to the list of archived if debt is paid and vehicle left the parking area in estimated time. In archive, there are also tickets which are "manually" archived, for example in case when it is established that some ticket is excess ticket and there is no vehicle in the parking ticket is assigned to.

Fields for search through archive list are the same as for active tickets, with additional possibility to search by exit gate and exit time.

Also, there are some additional columns in this list: exit gate and exit time. As for command buttons available for each row in the table, delete button is missing, because it is not allowed to delete tickets from archive.

	Tickets																	📩 Export	
	Tickets		î↓							î↓		$\uparrow \downarrow$							
	Ticket archive	î↓ Ticket number	Entry gate	↑ Entry time	î↓ Price	î↓ Is paid	î↓ Cash	î↓ Card	î↓ Check	Payment time	î↓ Plate Number	Ticket type	î↓ Card Type	î↓ î↓Exit Cashier gate	†↓ Exit time				
a	Inactive ticket	980203185913	3	03.02.2020 18:59:24	500.00	V	0.00	0.00	500.00	03.02.2020 18:59:24		Car	Lost ticket	admin	03.02.2020 18:59:24	ß	Ø	\sim	0
5	Park station status	980203184237	7	03.02.2020 18:46:18	500.00	V	0.00	0.00	500.00	03.02.2020 18:46:18		Car	Lost ticket	admin	03.02.2020 18:46:18	6	Ø	\sim	0
1	History cleanup	980202090219	9	02.02.2020 09:02:40	500.00	V	0.00	500.00	0.00	02.02.2020 09:02:40		Car	Lost ticket	admin	02.02.2020 09:02:40	ø	ı	\sim	0
		98020209014	5	02.02.2020	500.00	V	0.00	500.00	0.00	02.02.2020		Car	Lost	admin	02.02.2020	6	0	\sim	0

INACTIVE TICKET

Ticket behavior immediately after it is created is controlled by application settings. Possibilities are to send the ticket directly to the list of active tickets or to use list of inactive tickets as mid-step. If setting **Ticket.StoreTicketOnlssuing** is set to 1, each issued ticket automatically goes to list of active tickets. If setting **Ticket.StoreTicketOnlssuing** is set to 0, after being issued, ticket goes to the list of inactive tickets first. When vehicle steps on and after that gets off the second inductive loop on the entry gate, ticket is transferred from inactive into the list of active tickets and it is considered that vehicle is in the parking area.

For inactive ticket following properties are logged and displayed: ticket number, ticket print time, plate number (if it is available), ticket type and card type. Inactive ticket can be "manually" transferred into list of active tickets by click on button at the end of each table row.

List filtering can be performed by several parameters: ticket number, plate number, print time interval, ticket type and entry gate where ticket was printed. Whole or filtered list of inactive tickets can be exported into Excel or PDF format.

	= & ø 🛱	Parking Controller 01 👻	100 TOTAL SPACE	\otimes	22 OCCUPIED SPACES	\oslash	78 FREE SPACES	English 🗸 🧲
SmartPark	Inactive ticket							
Ticket Code	Search parameters							
	Ticket number	Pla	te Number	Tic	ket print time from	Ť	Ticket print time to	
	Ticket Type	▼ Entr	/ gate	•				
	Q Search Ø R	eset						
O DASHBOARD								
Administration								≰Export →
🛱 Cashier	↑ Ticket number	↑↓ Ticket print	time î-	Plate Number	†↓ Tio	cket type	†↓ Card Typ	e
Cards	111216132727	16.12.2019 13:2	7:27				99	
🛷 Tickets	111216132240	16.12.2019 13:2	2:40				99	
	111216132049	16.12.2019 13:2	0:49				99	

Cards

On the **Cards** submenu there are two commands: **Activate card** and **Card turnover** to control and review history of usage of template cars in the system.

ACTIVATE CARD

Card created on the page that opens from menu <u>Administration \rightarrow Card settings</u> has to be activated to be used. Command Activate card opens page with multiple fields. Some of them are to be fulfilled by operator, while others are populated automatically.

Ticket Code	Card Code	Card Code		
	6010 6002	cura conc		
Ticket Code	Card Template	Night Week	× *	
	1 Data From	00.00.000010/0011		
🔿 DASHBOARD	Daterion	00.02.2020 19.38.11		
	Date To	13.02.2020 19:58:11		
© Administration				
🔁 Cashier	Activation Date	06.02.2020 19:58:11		
Cards	Price	100.00		
Activate card	Cash amount	100.00		
Card Turnovers	Card amount	0.00		Switch
🛷 Tickets	Check amount	0.00		Switch
印 Reports				
Park station status	Plate Number	Plate Number		
🕮 History cleanup	Customer Name	Customer Name		
	Customer Id	Customer Id		
	customeria	Customeriu		
	Status	Active		
	Reserves Parking Space			
© 2020 - SmartPark				▷ Activate

Obligatory fields are **Card Code** and **Card Template**. In the process of card creation it is specified whether card is postpaid, prepaid or template. Which of defined templates will be used for card is to be defined in the process of card activation.

Default value for starting date (Date From) is current date, while end date (Date To) of card validity will be automatically fulfilled according to chosen template. Activation date is also automatically fulfilled with current date. Same goes for price, since it is read from template definition of the chosen template. Operator needs to specify payment method (cache, card or check) and optionally input values for: plate number, customer name, customer id. Reserves parking space is option that is off by default, but it is possible to turn it on by corresponding switch. If all data are correctly entered, first of all card code, by click on button **Activate** notification appears docked to upper edge of the screen with a message "**Success, card is successfully activated**".

Success Card is successfully activated.			22 OCCUPIED SPACES		×
Ticket Code	Card Template	Poslovna		v	

If card code is incorrect or card with specified code is not created previously in the "<u>Card settings</u>" page, click on button Activate pops-up red message bar with notification "**Error: Card does not exist**".

Error message should also be displayed when in create dialog for card, in <u>card settings</u> page, status for card is set to inactive by switching off the corresponding switch. If operator tries to activate card which is set to inactive, application throws same error as if card is not created at, with a message "Error: Card does not exist"

If operator tries to activate card which is already activated within the given time period, error message appears in a form of red ribbon with an inscription "Error: Card with this code is already active in that period".

Card with this code is already active in that period	Parking Controller 01 👻 🌐 Card Code	100 TOTAL SPACES 1010101010	\bigcirc	22 OCCUPIED SPACES	\bigcirc	78 FREE SPACES	×
Ticket Code							
	Card Template	Poslovna		1	-		

CARD TURNOVERS

Card turnovers shows history of all template card activations. Card status can be active, canceled or archived. In front of the table row with active card displayed, there is green circle, archived cards are marked with gray circle and canceled ones are marked red. Data saved and displayed in table view for each card activation are:

- o Card code
- o Date and time from to designates period when card can be used according to defined template
- Card template (night, day, business...)
- Date and time of activation
- Price
- o Plate number
- Customer ID
- Customer (plate number, customer ID and customer name are not obligatory fields)

- Reserved parking space checkmark which shows whether customer has reserved space in the parking
- Archiving date if card is archived
- o Archived by operator who performed archiving

	≡ £ 🖋 🛱 Parking Co	atroller 🔻	100 TOTAL SPACES	OCCUPIED SPACES	\oslash	78 FREE SPACES	English 🗸 🧲
SmartPark	Card Turnovers						
Ticket Code	Search parameters						
TICKET BILLING TICKET Code	Card Code	Active	x *	Valid From		Valid To	
∧ CHECK TICKET ∧	Card Template Name	Activated From		Activated To		Plate Number	
C DASHBOARD	Customer Name	Customer Id		Q Search () Reset			
③ Administration						≛ Export → D	> Activate
Cashier		î↓		†↓ †↓ Reserve:	s ↑↓	. t1	
	†↓ Date †↓ Card Code From †↓ I	↑↓ Card Activation ate To Template Date	n ↑↓ Plate ↑↓ Price Number	Customer↑↓ParkingIdCustomerSpace	Archiving Ac Date By	ctivated Archived y By	
Activate card Card Turnovers	369369 04.02.2020 11.0 20:09:37 20:0	2.2020 Nocna 04.02.2020 9:37 Nedeljna 20:09:56	0 100.00		ad	dmin 6	° 🙂 Ū
🛷 Tickets	0000123321 04.02.2020 11.0 20:05:49 20:0	2.2020 Nocna 04.02.2020 5:49 Nedeljna 20:06:23	0 100.00		ad	dmin 6	2 O Û

Next to the right edge of the table row there are buttons used to trigger action over record displayed in corresponding row.

	三 & 🌶 👇 Parkin	Edit Card Turnove	r	× D SPACES		78 EE SPACES
SmartPark	Card Turnovers	Card Code	369369			
Ticket Code	Search parameters	Card Template	Nocna Nedeljna			
TICKET BILLING	Card Code	Date From	04.02.2020 20:09:37			
	Card Template Name	Date To	11.02.2020 20:09:37			
O DASHBOARD	Customer Name	Activation Date	04.02.2020 20:09:56			
		Price	100.00			
		Cash amount	100.00	1		≊ export ⊸
	†↓ Card Code †↓ Date From ↑↓ I	ate Card amount	0.00	↓ Anthiving A Date B	ctivated Archived y By	
	369369 04.02.2020 11. 20:09:37 20:	2.20 9:37 Check amount	0.00	a	dmin	0
 Tickets 	0000123321 04.02.2020 11.0 20:05:49 20:0	2.20		- a	dmin	00
	0000000008 08.03.2020 15.0 21:29:02 21::	3.20 Plate Number 9:02	Plate Number		dmin	00
	0000000008 11.04.2020 18.0 21:28:39 21:2	4.20 Customer Name 8:39	Customer Name	а	dmin	0
	000000008 19.01.2020 20.0 14:50:34 14:5	1.20 Customer Id D:34	Customer Id	а	dmin	0
	0000000008 18.01.2020 19.0 14:49:34 14:4	1.20 Status 3:34	Active	k	asa	00
	0000000006 20.08.2019 27.4 15:12:00 15::	8.20 Reserves Parking 2:00 Space		د	dmin	00

First button with pencil icon is used for editing. Information about activation that can be added later or changed are plate number, customer name, customer id and indicator to show whether card assumes reserved parking space. Remaining data about activation is immutable and only can be overviewed.

Second button is used to send card to archive. Activation of the card that is activated with one template can be extended indefinite number of times. Activation extension assumes defining new validity period (new time interval), but template cannot be changed. In order to activate card with different template, card needs to be archived first. When tries to send card to archive, operator will see warning with question "Are you sure?"

Card which is archived can be activated again. New activation can be done by click on button **Activate** in the upper right corner above the card turnovers table. This button opens the same dialog as one presented on the page <u>Activate card</u>. New activation of previously archived card gives possibility to choose some other template from the list of created templates.



Third button is and is used to cancel card activation. Since moment of cancelation, activation is not valid any more (regardless of set dates) and card can be activated again with new settings for type of template and validity period.

Fourth button site is used to extend card activation. Activation extension gives possibility of setting new period of validity, but template cannot be changed.

	E & ≠ ¢	Parking Controller Activate Card Turne	01 - 100 over	\bigcirc	22 ×	\odot	78 FREE SPACES	English 🗕 🗧
SmartPark Ticket Code		Card Code	123123					
	Card Code	Card Template	Business					Ē
CHECK TICKET	Card Template N	Date From	06.06.2019 05:56:00		•		Riate Number	
O DASHBOARD	Customer Name	Date Io	06.07.2019 05:56:00					
		Activation Date Price	06.02.2020 23:37:43	Ē				> Activate
	†↓ Date	Cash amount	2000.00		Switch	. ↑↓ :tivated Archiv	red	
	From ↑↓ 0 06.05.2019 06.0	Card amount	0.00		Switch	r By Imin		0 a
# Tickets	26.02.2019 31.0 22:57:00 23:5	Check amount	0.00		Switch	Imin	00	
I Reports	1 04.02.2020 11.0 20:05:49 20:0	Plate Number	Pi032si			imin	00	0 8

Last in a row is button for printing activation Θ . For cards which are canceled or archived, only edit button and print activation button are available.

Panel with search fields offers multiple criteria for filtering card turnovers: filter by card code, activation status (active, canceled or archived), validity period (valid from and valid to), card template name, activation time (can be set as period within which activation was performed Activated from – Activated to), plate number, customer name and/or ID.

Complete or filtered list of card activations can be exported into Excel or PDF file by clicking button Export in the upper right corner above the table. Items in generated list is grouped by status of activity.

В	С	D	E	F	G H	1	J	K	L	Μ
				Ca	rd Turnovers					
Range: Ca	ard Code: Status:	Active, Valid Fro	m: , Valid To:	Card Template:	Activated From: Acti	vated To: , Pla	e Number:	Customer	Vame: Custor	mer Id:
- Status : Activ	/e									
							Reserves			
Card Code	Date From	Date To	Card Template	Activation Date	Price Plate Number	Customer Name	Parking Space	Archived	Activated By	Archived By
800000008	18.01.2020 14:49:34	19.01.2020 14:49:34	Dnevna	18.01.2020 14:49:38	3,000.00		No		kasa	
Status : Arch	ived									
							Reserves Parking			
Card Code	Date From	Date To	Card Template	Activation Date	Price Plate Number	Customer Name	Space	Archived	Activated By	Archived By
8000000008	17.01.2020 17:58:33	18.01.2020 17:58:33	Dnevna	17.01.2020 17:58:38	3,000.00		No	18.01.2020 09:05:19	admin	kasa
800000008	18.01.2020 14:46:27	19.01.2020 14:46:27	Dnevna	18.01.2020 14:46:33	3,000.00		No	18.01.2020 14:49:32	kasa	kasa
				11-47-10						

Reports

GATE EVENTS

First of provided reports is gate events. This report gives overview of every single entry and exit event on each gate of parking controller. Table can be sorted by content in any column by click on the column header. Registered data for each event are: gate controller name where event occurred, date and time of event occurrence and plate number (if it is noted). Identical form of report can be exported into .xlsx or .pdf format by pressing button **Export**

	= & ≠ <mark></mark> \$	Parking Controller 01 👻	Ф	100 DTAL SPACES	○ oc	22 CUPIED SPACES	\oslash	78 FREE SPACES	English 🕶	Ð
SmartPart	Gate events									
Ticket Code	Search parameters									
Ticket Code	Gate	• E	vent time from		Event time	e to		Plate Number		
	Q Search Ø Res	et								
O DASHBOARD									≜ Export	
Administration	1↓ Gate controller		↑ Event time			†↓ Pl;	ate Number			
Cashier	Entry gate U1		17.06.2019 1	5:56:09					(i)	
- П. с., t.	Exit gate I2		17.06.2019 1	5:53:40					(1)	
	Exit gate I2		17.06.2019 1	5:53:39					(
Tickets	Exit gate I2		17.06.2019 1	5:53:38					(1)	

Complete report can be exported or just filtered part of the report. Filtering can be done by setting search parameters into search fields:

- o Gate
- o Event time from to determines time interval within which entries and exits are searched for
- Plate number

Click on the button at the end of the table row ____, opens pop-up dialog with details about certain event.

		Parking Controller Details	01 - (× 22		78 FREE SPACES	English 🗸	Ð
Ticket Code	Search parameters	Gate controller name	Entry gate U1					
∧ TICKET BILLING ∧	Gato	Plate Number	Description		m	Rinto Number		
Ticket Code	Q Search (Event time	17.06.2019 15:56:09			Frate Number		
O DASHBOARD				ок			≛ Evnort -	
	†↓ Gate controller		↑ Event time	1.	l Plate Number			
🗂 Cashier	Entry gate U1		17.06.2019 15:56:09				()	

EVENTS

Report **Events** gives list of all events that can happen in the system: parking is full, manual gate opening, vehicle is not on the inductive loop, card is read on the gate, vehicle exit, vehicle entrance, ticket request, ticket read on the gate, plate number read on the gate, ticket with number is not paid, ticket is paid but leaving time is reached, unallowed ticket type, device message, gate printer message, gate controller message, pay station message.

	≡ & ≠ <mark>≑</mark>	Parking Con	roller 01 🔻	TOTAL SP	ACES	OCCUPIED SPAC	es	7 FREE S	B PACES	English 🕶
SmartPark	Events									
icket Code	Search parameters									
Cket Code	Gate		Ca	tegory	¥	Event type	•	Descrij	ption	
^ CHECK TICKET ^	Event time from	Ē	E	vent time to		Devices	•	Users		*
O DASHBOARD O Administration		Laut								≛ Export →
Cashier	↑↓ Gate ↑↓ controller Category	†↓ Event type	†↓ Descri	ption				†↓ Device name	†↓ Username	↑ Event time
Cards	Entry gate	Gate	Kontrole	rampe: 'Ulazna rampa U1'. s	tatus konok					
🛷 Tickets	U1	controller message	made be	cause the target machine act	ively refused	cije: False, poruka: No conne d it 127.0.0.1:5001	ection could be	Entry gate U1		01.02.2020 07:45:33
 Tickets Reports 	U1 Exit gate I1	controller message Card is read on the gate	made be Manual g	cause the target machine act	ively refused	cije: False, poruka: No conno d it 127.0.0.1:5001	ection could be	Entry gate U1 Exit gate I1	admin	01.02.2020 07:45:33 ⁽³⁾ 29.01.2020 13:39:39 ⁽³⁾
 Tickets Reports Gate events Events 	U1 Error Exit gate I1 Exit gate I1 Information	controller message Card is read on the gate Card is read on the gate	made bee Manual g Kartica '0	cause the target machine act ate opening 000000008' je očitana na rar	ively refused	cije: False, poruka: No conne d it 127.0.0.1:5001	≥ction could be	Entry gate U1 Exit gate I1 Exit gate I1	admin	01.02.2020 07:45:33 29.01.2020 13:39:39 29.01.2020 13:39:27
 Tickets Reports Gate events Events Turnovers per days 	U1 Error Exit gate I1 Exit gate Exit gate I1 Information I2 Parking zone - in Worning.	controller message Card is read on the gate Card is read on the gate Unallowed ticket type	made bee Manual g Kartica 'O Nedozvo	cause the target machine act ate opening 000000008' je očitana na rar jeni tip tiketa: 'Putničko voz	npi.	cije: False, poruka: No conne d it 127.0.0.1:5001	ection could be	Entry gate U1 Exit gate I1 Exit gate I1 Parking zone - in	admin	01.02.2020 07:45:33 29.01.2020 13:39:39 29.01.2020 13:39:27 29.01.2020 13:39:12

Table for event display has in its first column **Gate controller** name, next one is **Category** of event (Information, Warning, Error). After category there are: Event type, Description, Device name (name of the device which initiated the event – barcode printer on the gate, display of free spaces, receipt printer, display on exit...), username (if event is initiated by operator, it is logged who initiated the event, e.g. manual ramp up and ramp down) and Event time. This table is also sortable by any column with click on column header.

As for previous report (gate events), insight into details about particular event is done by click on info button at the end of each row in the table. Info button click opens pop-up information dialog.

	E ≗ ≱ ≤	Parking Controller (Details	100	22 ×		FRE	78 E SPACES	nglish 🗸 🗧
SmartPark	Licito	Parking controller	Parking Controller 01					
Ticket Code	Search parameters	Gate controller	Entry gate U1					
Ticket Code	Gate	Device name	Device name		× v			
	Event time from	Username	admin		Ŧ	Users		¥
(?) DASHBOARD	Q Search	Category	Warning					
		Event type	ManualGateOpening				\	
⊗ Administration		Event time	26.01.2020 18:00:28				46	port 👻
Cashier	†↓ Gate controller	Description	Ručno otvaranje rampe 3. Naplata na izlazu		name 1	Username	↑ Event time	
Cards	Entry gate U1			6	≥U1 a	Idmin	26.01.2020 18:00:28	
🛷 Tickets	Entry gate U1			_	e 01 a	iamin	23.01.2020 15:36:53	
E Reports	Entry gate U1			ок	201		23.01.2020 14:51:50	
Gate events	Exit gate I1	Warning Manual g	ate opening Rucno otvaranje rampe 3. Napiata na iz	zlazu Exit gate 1	1		17.01.2020 04:06:13	

Events can be filtered by:

- o Gate
- Event category information, warnings, errors
- Event type describes nature of event (ticket issued, ticket read...)
- Description
- Time interval from to when event occurred
- o Device that triggered the event
- Operator

Complete or partial report can be exported to Excel or PDF file.

TURNOVERS PER DAYS

Turnover per day is initially displayed for previous and current day. If insight into some other time period is needed, time interval should be set by choosing values in calendar like controls **Event time from** and **Event time to** in upper panel of the page and then click the **Search** button.

Besides by time period, search can be performed by payment type (cache, card, check).

	= £	🖌 😫	Parking Controlle	r 01 👻 🌐	10 TOTAL	O SPACES		22 ED SPACES		78 SPACES	English 🗸
SmartPark	Turnov	ers per d	ays								
cket Code	Search pa	rameters									
∧ TICKET BILLING ∧	ocuren pu	Tarrieters									
cket Code	16.01.2	020 00:00:00	Ē	30.01.2020 2	3:59:59		Payment type		↓ Q Se	arch 🗘 Reset	
) dashboard	†⊥ Date	†⊥ Card Tvr	pe î⊥Tick	et type ↑⊥ In cou	nt ↑⊥ Out co	unt ↑⊥ Paid	tickets ↑⊥ Income	†⊥ Income cash	1⊥ Income cards	1⊥ Income checks	xport →
	16.01.202	0 Lost ticket	Car	0	2	0	0.00	0.00	0.00	0.00	0.00
Administration	16.01.202	0 Barcode ticke	t Car	0	5	3	4,200.00	4,100.00	100.00	0.00	0.00
Cashier	16.01.202	Barcode ticke	t Day	0	1	1	4,000.00	4,000.00	0.00	0.00	0.00
	17.01.202	20 Postpaid	Car	0	1	1	100.00	100.00	0.00	0.00	0.00
Cards	17.01.202	Lost ticket	Car	0	35	35	14,300.00	14,300.00	1,000.00	0.00	1,000.00
Tickets	17.01.202	0 Barcode ticke	t Car	0	14	14	3,600.00	3,300.00	300.00	0.00	0.00
	17.01.202	20 Template Car	d Activation	0	1	1	3,000.00	3,000.00	0.00	0.00	0.00
			a structure at a second	0	2	2	6,000.00	6,000.00	0.00	0.00	0.00
	18.01.202	20 Template Car	d Activation								
Reports Gate events	18.01.202	20 Template Car 20 Lost ticket	Car	1	1	2	1,000.00	500.00	500.00	0.00	0.00

Cross sections are made each day at midnight. Report is displayed with item grouping by days, card type and ticket type. For example, for 17.01.2020 one item is displayed for all passenger's vehicles which entered using barcode ticket, separate item is formed for passenger's vehicles which entered on a same day, but using postpaid card, and a separate one is for day cars with barcode.

Also, in the report for observed day, there is item that shows how many template card activations happened during that day.

17.01.2020	Postpaid	Car	0	1	1	4,000.00	4,000.00	0.00	0.00	0.00
17.01.2020	Lost ticket	Car	0	1	1	100.00	100.00	0.00	0.00	0.00
17.01.2020	Barcode ticket	Car	0	35	35	14,300.00	14,300.00	1,000.00	0.00	1,000.00
17.01.2020	Barcode ticket	Day	0	14	14	3,600.00	3,300.00	300.00	0.00	0.00
17.01.2020	Template Card Activati	on	0	1	1	3,000.00	3,000.00	0.00	0.00	0.0

Report table per every day, ticket type and card type displays following columns:

- o In count how many customers entered parking area using card and ticket of listed type
- Out count how many customers left parking area using card and ticket of listed type
- o Paid tickets how many payments have been made for listed types of card and ticket
- o Income amount of expected income based on number of payments
- Income cash amount paid by cash
- Income cards amount paid by cards
- Income checks amount paid by checks
- o Surplus if expected income and real amount are not equal, this column shows the difference

Report can be exported into Excel or PDF file by click on **Export** button.

TURNOVERS PER USERS

Turnovers per users resembles the previous with difference in grouping method. In this case, grouping is not by days, but by user (operator), card type and ticket type for chosen time period.

First, time period for report should be set. Within set period, summary is made for each user showing number of handled customers with specified card type and ticket type. In given time period, displayed table can additionally be filtered by user (operator) and payment type. In dropdown list for each user in the system, username is displayed followed by authorization level approved to user.

	≡ & ≠	🛱 Par	king Controlle	r 01 🔻 📢	Ð тота	100 L SPACES	О _{осс}	22 UPIED SPACES		78 E SPACES	English 🕶
SmartPark	Turnovers	per users	5								
Tickets											
	Search parame	ters									
Gate events	14.01.2020 0	0:00:00		08.02.20	20 23:59:59		Users		• Payn	ient type	Ŧ
Events	Q Search	() Reset									
Turnovers per days											
										_	
Parking turnover										2 E	xport 👻
Parking turnover analytics	†↓ Username	†↓ Card Type	ŤJ	Ticket type	†↓ Out count	†↓ Paid tickets	†↓ Income	†↓ Income cash	†↓ Income cards	t E ¢	xport →
Parking turnover analytics Parking turnover sinthetics	†↓ Username admin	†↓ Card Type	†1 Ca	Ticket type	↑↓ Out count	↑↓ Paid tickets	†↓ Income 100.00	†↓ Income cash 100.00	↑↓ Income cards 0.00	L Income checks	xport - ↑↓ Surplus 0.00
Parking turnover analytics Parking turnover sinthetics	†↓ Username admin admin	†↓ Card Type Postpaid Lost ticket	t) Ca	Ticket type r	↑↓ Out count 1 53	↑↓ Paid tickets 1 92	†↓ Income 100.00 41,550.00	↑↓ Income cash 100.00 39,550.00	1↓ Income cards 0.00 3,400.00	↓ Income checks 0.00 3,500.00	xport - ↑↓ Surplus 0.00 4,900.00
Parking turnover analytics Parking turnover sinthetics Discount history report	†↓ Username admin admin admin	†↓ Card Type Postpaid Lost ticket Barcode ticket	†J Ca Ca	Ticket type r r	↑↓ Out count 1 53 34	↑↓ Paid tickets 1 92 34	<pre>↑↓ Income 100.00 41,550.00 107,300.00</pre>	↑↓ Income cash 100.00 39,550.00 97,188.89	↑↓ Income cards 0.00 3,400.00 7,400.00	↓ Income checks 0.00 3,500.00 2,711.11	xport → ↑↓ Surplus 0.00 4,900.00 0.00
Parking turnover analytics Parking turnover sinthetics Discount history report Turnover vehicles per	†↓ Username admin admin admin admin	↑↓ Card Type Postpaid Lost ticket Barcode ticket	11 C2 C2 C2 D2	Ticket type r r r	1↓ Out count 1 53 34 4	1 92 34 4	<pre>↑↓ Income 100.00 41,550.00 107,300.00 200,000.00</pre>	↑↓ Income cash 100.00 39,550.00 97,188.89 200,000.00	1↓ Income cards 0.00 3,400.00 7,400.00 0.00	↓ Income checks 1,1 Income checks 3,500.00 2,711.11 0.00	xport → ↑↓ Surplus 0.00 4,900.00 0.00 0.00
Parking turnover analytics Parking turnover sinthetics Discount history report Turnover vehicles per plate number	†↓ Username admin admin admin admin admin	 ↑↓ Card Type Postpaid Lost ticket Barcode ticket Barcode ticket Template Card A 	1) Ca Ca Ca Da Notivation	Ticket type r r r	 ↑↓ Out count 1 53 34 4 18 	1↓Paid tickets 1 92 34 4 18	<pre>↑↓ Income 100.00 41,550.00 107,300.00 200,000.00 25,000.00</pre>	↑↓ Income cash 100.00 39,550.00 97,188.89 200,000.00 25,000.00	1↓ Income cards 0.00 3,400.00 7,400.00 0.00		xport → ↑↓ Surplus 0.00 4,900.00 0.00 0.00 0.00

Report per operator, beside username, card type and ticket type, has following columns:

- Out count number of handled parking area leaving
- Paid tickets number of made payment
- o Income amount of expected income based on number of payments
- Income cash amount paid by cash
- Income card amount paid by cards
- Income check amount paid by checks
- o Surplus if expected income and real amount are not equal, this column shows the difference

Exported Excel or PDF report look like on the picture bellow:

		Т	urnovers p	er users				
Range: Date From:	14.01.2020 00:00:00, Date To	o: 08.02.2020 23:59:59, I	Payment type:					
Username: admin								
Card Type	Ticket type	Out count	Paid tickets	Income	Income cash	Income cards	Income checks	Surplu
Postpaid	Car	1	1	100.00	100.00	0.00	0.00	0.0
Lost ticket	Car	53	92	41,550.00	39,550.00	3,400.00	3,500.00	4900.0
Barcode ticket	Car	34	34	107,300.00	97,188.89	7,400.00	2,711.11	0.0
Barcode ticket	Day	4	4	200,000.00	200,000.00	0.00	0.00	0.0
Template Card Activa	ation	18	18	25,000.00	25,000.00	0.00	0.00	0.0
			Total:	373,950.00	361,838.89	10,800.00	6,211.11	4,900.0
Username: kasa								
Card Type	Ticket type	Out count	Paid tickets	Income	Income cash	Income cards	Income checks	Surplu
Lost ticket	Car	8	50	25,000.00	24,420.00	1,400.00	1,000.00	1820.0
Barcode ticket	Car	1	1	100.00	100.00	0.00	0.00	0.0

PARKING TURNOVER ANALYTICS

	≡ £ ≠ 🛱	Parking Controller 01 🔻	TO TO	100 DTAL SPACES	\bigcirc or	22 CUPIED SPACES	\oslash	FR	78 EE SPACES		English 🗸
SmartPark	Parking turnover	analytics									
🛷 Tickets	Search parameters										
	23.12.2019 00:00:00	E 25.1	12.2019 23:59:59		Card Type			Pay	ment type		•
Gate events Events	Q Search \bigcirc Reset										
Turnovers per days											
Turnovers per users										& E	kport 👻
Turnovers per users Parking turnover	1↓ Transaction description	n	Ť	↓ Date	†↓ Card Type	†↓ Ticket type	î↓ Price	†↓ Cash	†↓ Cards	t Checks	xport - ↑↓ Surplus
Turnovers per users Parking turnover analytics	↑↓ Transaction description Parking payment (9812231	n 51340) - Vehicle is in the p	↑ parking area 2	↓ Date 3.12.2019 15:14:05	†↓ Card Type	↑↓ Ticket type Pacient	1↓ Price	†↓ Cash 30.00	↑↓ Cards	Land Checks 0.00	xport ▼ ↑↓ Surplus 0.00
Turnovers per users Parking turnover analytics Parking turnover sinthetics	1↓ Transaction description Parking payment (9812231 Parking payment (000000	n 51340) - Vehicle is in the p 008) - Vehicle is in the par	↑ Parking area 2 king area 2	↓ Date 3.12.2019 15:14:05 3.12.2019 15:14:36	↑↓ Card Type Lost ticket Template	↑↓ Ticket type Pacient Car	1↓ Price 30.00 3,900.00	↑↓ Cash 30.00 3,900.00	↑↓ Cards 0.00 0.00	2 E ↑↓ Checks 0.00 0.00	xport → ↑↓ Surplus 0.00 0.00
Turnovers per users Parking turnover analytics Parking turnover sinthetics	1 Transaction description Parking payment (9812231 Parking payment (000000 Parking payment (9812231	1 51340) - Vehicle is in the p 008) - Vehicle is in the par 50050) - Vehicle is in the p	↑ harking area 2 king area 2 harking area 2	↓ Date 3.12.2019 15:14:05 3.12.2019 15:14:36 3.12.2019 15:39:39	↑↓ Card Type Lost ticket Template Lost ticket	↑J Ticket type Pacient Car Car	↑↓ Price 30.00 3,900.00 30.00	↑↓ Cash 30.00 3,900.00	↑↓ Cards 0.00 0.00	▲ E ↑↓ Checks 0.00 0.00 0.00	xport ▼ ↑↓ Surplus 0.00 0.00 -30.00
Turnovers per users Parking turnover analytics Parking turnover sinthetics Discount history report	†⊥ Transaction description Parking payment (9812231 Parking payment (000000 Parking payment (9812231 Parking payment (1112211	n 51340) - Vehicle is in the p 008) - Vehicle is in the par 50050) - Vehicle is in the p 32913) - Vehicle is in the p	 the second second	L Date 3.12.2019 15:14:05 3.12.2019 15:14:36 3.12.2019 15:39:39 4.12.2019 15:19:17	 ↓ Card Type Lost ticket Template Lost ticket Barcode ticket 	↑J Ticket type Pacient Car Car Car	 ↑↓ Price 30.00 3,900.00 30.00 7,400.00 	1↓ Cash 30.00 3,900.00 0.00 7,400.00	↑↓ Cards 0.00 0.00 0.00	1↓ Checks 0.00 0.00 0.00 0.00	xport ▼ ↑↓ Surplus 0.00 0.00 -30.00 0.00

Report named Parking turnover analytics gives detail overview of all singular payments, as well as information if the vehicle is still in the parking area or not. Columns for this overview are:

- Transaction description ticket number or card number that the payment is based on and statement which tells if vehicle is in the parking area or vehicle left the parking area
- Date date and time of payment
- Card Type determines based on what card type payment is made prepaid, postpaid, template, barcode ticket, lost ticket, template card activation
- Ticket type passenger's vehicle, motorcycle, office car, day card...
- Price total amount for listed parking service
- o Cash- part of total amount, paid in cash
- Cards part of total amount, paid by cards
- Checks part of total amount, paid in checks
- Surplus difference between expected income and real amount

Filtering can be done by time interval (from-to) the turnover is made within, card type and payment method.

PARKING TURNOVER SINTHETICS

Next report named Parking turnover synthetics contains same data as previous one, but in a form of summary display. Data are grouped by card type, ticket type and by the status of presence in the parking area (i.e. "vehicle is in the parking area" or "vehicle is not in the parking area"). This means that following statistics are presented as separate items:

- Expenses charged for passenger's vehicles that entered parking by barcode tickets and still ARE in the parking area
- Expenses charged for passenger's vehicles that entered parking by barcode tickets and ARE NOT in the parking area
- Expenses charged for passenger's vehicles that entered parking with prepaid card and still ARE in the parking area
- Expenses charged for passenger's vehicles that entered parking with prepaid card and left parking area

o ...

	😑 \Lambda 🖋 🛱 Parking Co	ntroller 01 👻	TOTAL SP	D (SPACES	\odot	78 FREE SPACES	s	English 🕶
SmartPark	Parking turnover sinthe	tics								
icket Code	Search parameters									
^ TICKET BILLING ∧										
iskat Code	01.12.2019 00:00:00	24.01	.2020 23:59:59		Card Type		• P	ayment type	2	Ŧ
O DASHBOARD									≜ €	ixport 👻
DASHBOARD Administration	↑↓ Transaction description		†↓ Card Type	†↓ Ticket	t type 1↓ Number	↑↓ Price	†↓ Cash	†↓ Cards	≛ E †↓ Checks	ixport → ↑↓ Surplus
O Administration Cachier	1↓ Transaction description Parking payment (Vehicle is in the par	rking area)	†↓ Card Type Template	†↓ Ticke Car	t type	†↓ Price 3,900.00	†↓ Cash 3,900.00	†↓ Cards 0.00	▲ E ↑↓ Checks 0.00	ixport → ↑↓ Surplus 0.00
O DASHBOARD Administration Cashier	1 Transaction description Parking payment (Vehicle is in the par Parking payment (Vehicle is not in the	rking area) e parking area)	î↓ Card Type Template Postpaid	î↓ Ticke Car Car	t type ↑↓ Number 1 1	↑↓ Price 3,900.00 100.00	↑↓ Cash 3,900.00 100.00	1↓ Cards		<mark>¢xport →</mark> ↑↓ Surplus 0.00 0.00
O DASHBOARD Administration Cashier Cards	1↓ Transaction description Parking payment (Vehicle is in the par Parking payment (Vehicle is not in the Parking payment (Vehicle is in the par	rking area) e parking area) rking area)	↑↓ Card Type Template Postpaid Lost ticket	↑↓ Ticket Car Car Car	t type î↓Number 1 1 248	↑↓ Price 3,900.00 100.00 84,880.00	1↓ Cash 3,900.00 100.00 74,190.00	↑↓ Cards 0.00 0.00 9,020.00	↓ Checks 0.00 5,010.00	xport ▼ ↑↓ Surplus 0.00 0.00 3,340.00
DASHBOARD Administration Cashier Cards Trainets	1⊥ Transaction description Parking payment (Vehicle is in the par Parking payment (Vehicle is not in the Parking payment (Vehicle is in the par Parking payment (Vehicle is in the par	rking area) e parking area) rking area) rking area)	↑↓ Card Type Template Postpaid Lost ticket Lost ticket	↑↓ Ticket Car Car Car Pacient	ttype î↓Number 1 1 248 3	↑↓ Price 3,900.00 100.00 84,880.00 30.00	1↓ Cash 3,900.00 100.00 74,190.00 30.00	1↓ Cards 0.00 0.00 9,020.00		xport ▼ ↑↓ Surplus 0.00 0.00 3,340.00 0.00
DASHBOARD Administration Cashier Cards Tickets	1 Transaction description Parking payment (Vehicle is in the par Parking payment (Vehicle is not in the Parking payment (Vehicle is in the par Parking payment (Vehicle is in the par Parking payment (Vehicle is in the par	rking area) e parking area) rking area) rking area) rking area)	11 Card Type Template Peatpaid Lost ticket Lost ticket Burcode Eicket	†↓ Ticket Car Car Car Pacient Car	t type î↓Number 1 248 3 40	↑↓ Price 3,900.00 100.00 84,880.00 30.00 330,200.00	1↓ Cash 3,900.00 100.00 74,190.00 30.00 314,740.00	↑↓ Cards 0.00 9,020.00 0.00 15,360.00		xport ▼ ↑↓ Surplus 0.00 0.00 3,340.00 0.00 0.00

Table columns are same as it was in the previous case, with one difference. Instead of **Date** column with payment date and time for each and every payment separately, in this case there is **Number** column that holds the total number of vehicles which passed through parking gates under given conditions.

Search criteria are same as for analytics: date and time interval, card type and payment method.

DISCOUNT HISTORY REPORT

As previously mentioned, customer can get <u>discount for parking services</u> based on purchase made in registered stores. Discount can be granted in the form of **value vouchers** or in the form of **discount minutes**. When voucher is used, service price is decreased by value of the voucher. On the other hand, discount minutes are approved to customer who has a receipt from certain stores, and parking time is decreased by <u>specified time</u>.

	≡ & ≠ <mark>≑</mark>	Parking Controller 01 👻	TOTAL SP	ACES	22 OCCUPIED SPACES	FREE SPAC	ES English 🗸 🧲
SmartPark	Discount history	report					
Ticket Code	Search parameters						
↑ TICKET BILLING ↑	01.01.2020 00:00:00	08.02.	2020 23:59:59	Store		▼ Q Search	() Reset
🔿 DASHBOARD	1↓ Invoice Number	†↓ Discount Time	†↓ Ticket Code	†↓ Discount	†↓ Description	†↓ Discount Minutes	L Export →
<u>^</u>	999888	16.01.2020 12:20:27	111226225135	0.00		120.00	Delta
Administration	123456789	20.01.2020 15:03:31	110117040131	0.00		120.00	Roda
Cashier	123456789	20.01.2020 15:05:25	980120135140	0.00		120.00	Roda
	123456789	20.01.2020 15:53:07	110117151849	0.00		120.00	Usce
	789654123	20.01.2020 15:57:35	110117151904	0.00		60.00	Forum
🛷 Tickets	654654	28.01.2020 09:53:50	980128083347	0.00		120.00	Roda
	123456789	06.02.2020 18:15:25	110117040131	0.00		120.00	Roda

Table holds: invoice number, discount time (time when discount was approved), ticket number, discount (value of voucher), description, discount minutes and store name. If discount is expressed as currency value, approved amount is registered in the **Discount** column. If discount is in the form of discount minutes, in the **Discount** column zero value is shown, but the column **Discount minutes** shows number which is used to decrease total parking time before calculation of final price.

Filtering the table is possible by date interval (from - to) and store which granted the discount.

TURNOVER VEHICLES PER PLATE NUMBER

This report refers to vehicles with recorded registration number. For each vehicle with recorded plate number some information are logged and displayed in this table: entry or exit time, gate controller ID, gate controller name and plate number.

Search can be made by time interval (from – to) and gate controller name. Report can be downloaded in Excel or PDF format.

	≡ & ≠ ਵਿ	Parking Controller 01 🔻	TOTAL SI	D (PACES			78 FREE SPACES	English v	Ð
SmartPark	Turnover vehicle	es per plate num	ber						
Ticket Code	Search parameters								
	· ·								
Ticket Code	28.04.2019 00:00:00	iii 31.	01.2020 23:59:59	iii	Gate	Ŧ	Q Search	() Reset	
🔿 DASHBOARD								📥 Export 🗸	
	î↓ Time	†↓ Gate	controller id	↑↓	Gate controller name		↑↓ Plate Num	ber	
	31.05.2019 13:15:29	11		Ent	ry gate U1		CŠ 781CŠ		
Administration	31.05.2019 13:21:25	11		Ent	ry gate U1		UH042UH		
Cashier	31.05.2019 13:22:44	11		Ent	ry gate U1		ČR 992ČR		
П с	31.05.2019 13:24:14	11		Ent	ry gate U1		OJ 1410J		

GATE CONTROLLER VEHICLE COUNT

Gate controller vehicle count report does not show separate and singular transfers through gates, but for each gate in parking controller total number of transfers, within specified time interval, is shown. Default time interval is starting from midnight in a previous day, up to the moment of generating report. Time interval for analysis can be customized, as well as parking controller the report refers to.

In the table, there are gate controller ID, gate controller name, total number of vehicles that passed through gate and number of vehicles with read license plate. Export to Excel or PDF format is available, same as for other reports.

	= £ ≠ 🛱	Parking Controller 01 👻	100 TOTAL SPAC		22 OCCUPIED SPACES	\oslash	78 FREE SPACES	English 🗸 🗲
SmartPark	Gate controller v	ehicle count						
Ticket Code	Search parameters							
∧ TICKET BILLING ∧								
Ticket Code	27.10.2019 00:00:00		02.2020 23:59:59	Gate	2	*	Q Search Ø	Reset
🔿 dashboard	↑↓ Gate controller id	↑L G	ate controller name		1↓ Number of vehicle	s	1↓ Number of vehicle	es with read license plate
	29	Ula	zna rampa desno (kod tri ula	za)	3076		3076	
Administration	28	Ula	zna rampa levo (kod tri ulaza	i)	2696		2696	
Cashier	27	Izd	vojen ulaz (kod tri ulaza)		3370		3370	
Cashier							0.450	
	26	Izla	z desno (rucna naplata)		3453		3453	

VISITORS TICKET SUMMARY

	≡ ଥ ≉	₽ P	arking Controller 0	1 •	100 TOTAL SPACES	6	OCCUPIED SPACE	s C)	78 FREE SPACE	English v
SmartPark	Visitors tic	ket sum	imary								
	Search parame	ters									
DASHBOARD	01.12.2019 0	0:00:00		01.01.2020 23:59	:59		Ticket number			Plate Num	per
3 Administration	Entry		Ţ	Exit		F	Payment type		•	Q Search	♦ Reset
Cashier											
Cards											📥 Export 🛛 🛨
Tickets	↑↓ Ticket number	†↓ Entry time	†↓ Entry gate controller name	e î↓ Exit time	î↓ Exit gate controller name	†↓ Caro Type	d ↑↓ Ticket ↑↓ Plate type Number	†↓ Price	†↓ Cash	î↓ î Cards Check	↓ ↓ ↑↓ ↑↓ Is Parking s Surplus paid time
Reports Gate events	111227153721	27.12.2019 15:37:21	Entry gate U1	15.01.2020 11:49:05		Barcod ticket	le Car	0.00	0.00	0.00 0.0	0 0.00 🗸 52:11:44
Events	111227153701	27.12.2019 15:37:01	Entry gate U1			Barcod ticket	le Car	0.00	0.00	0.00 0.0	0 0.00
Turnovers per days	111227153638	27.12.2019 15:36:38	Entry gate U1			Barcod ticket	le Car	0.00	0.00	0.00 0.0	0.00

In this report, for each read card or ticket displayed data are:

- o Ticket number
- Entry time date and time when vehicle entered parking by using ticket/card with displayed number
- Entry gate gate where ticket was issued or card read on entrance (in a case of lost ticket, this column is empty)
- Exit time date and time when vehicle left parking by using ticket/card with displayed number
- Exit gate gate where ticket or card was read on exit
- Card type e.g. barcode card, postpaid, prepaid, lost ticket...
- Ticket type e.g. passenger's vehicle, motorcycle...
- Plate number if recorder, plate number is visible in this column
- Price parking fee (for lost ticket this is some fixed amount determined in the system, for other tickets' types, price is calculated when customer pays for service)
- o Cash amount paid in cash
- Cards amount paid by paid cards
- Check amount paid by check

- o Surplus difference between price and paid amount
- \circ Is paid checkmark which shows whether price is paid or not
- o Parking time if vehicle left the parking, this column shows for how long it was on the parking

In order to display this report, user has to set time interval (from-to) for which an overview is to be made. By default, that is current and previous day, but can be set to any interval using calendar like controls in the search panel.

Report can be filtered by ticket/card number, plate number, entry and/or exit gate and payment method.

Same as for other reports, export to Excel or PDF format is available.

PARKING TOLLGATE TRAFFIC SUMMERY REPORT

	≡ ४ ४ हि	Parking Controller 01 🔻	Тота	100 L SPACES	\bigcirc	22 OCCUPIED SPACES	\oslash	78 FREE SPACES	English -
SmartPark	Parking tollgate ti	raffic summary	report						
Ticket Code	Search parameters								
∧ TICKET BILLING ∧				ctta				Ogenet	() Prost
Ticket Code	01.09.2019 00:00:00		02.2020 23:59:59		Gate		¥	C Search	ç7 Reset
									🕹 Export 🛛 🚽
(1) DASHBOARD	↑↓ Gate controller id	†↓ Gate con	troller name	ţ1	↓ Card Type	†↓ In count	t 1	†↓ Out count	↑↓ Total
	11	Entry gate U	11		Template	8	(0	8
Administration	11	Entry gate U	1		Postpaid	1	()	1
Cashier	11	Entry gate U	1	E	Barcode ticket	213	()	213
	21	Exit gate I1		T	Template	0	5	5	5
Cards	21	Exit gate I1			Postpaid	0	1	1	1
🛷 Tickets	21	Exit gate I1		E	Barcode ticket	0	3	38	38
	27	Parking zon	e - in		Template	0	3	3	3

This report also gives summery report for traffic per gate, but with more details than it is presented by "<u>Gate</u> <u>controller vehicle count report</u>".

For this report to be formed, it is expected to determine time frame for summing the recorded data. If gate is not chosen, report is formed for all gates (both entry and exit gates) on the parking controller. Otherwise, only traffic for chosen gate is displayed.

Grouping of data is done by gate and card type, i.e. for each gate there are several items in the report, one for every card type used on that gate. Each item shows number of entries, number of leavings and total number of vehicles that passed through gate in a given time interval. For example: one item shows that on entry gate U1, X vehicles entered the parking area in the designated time period by using barcode ticket; separate item shows that on the same gate in the same period, Y vehicles entered the parking postpaid card...

PAYMENT LOG

Report called "Payment log" gives overview of all actions in any application dialog used for payment. Every click on button **Pay** is logged, as well as every click on button "**Close**" in the dialogs for ticket payment opened whether by commands on <u>Cashier</u> menu, or by <u>Billing ticket button</u> on the application side menu (above Dashboard button) or by click on ticket number in the list of <u>active tickets</u> (Tickets menu).

Logged values are:

- o Time date and time action occurred
- Action whether click on <Pay> or click on <Cancel> button was performed,
- Username identifies user who performed the action,
- Description contains card number and price per card or ticket for which the payment dialog had been opened whether the payment was performed or canceled.

	= & ¥ 🛱	Parking Controller 01 -	SPACES) 22 OCCUPIED SPACES	FREE SPACES	English 🕶 🗧
SmartPark	Button action o	lick				
Ticket Code	Search parameters					
Ticket Code	Button action click	Description	U	sers	Date From	
^ CHECK TICKET ^	Date To					
O DASHBOARD	Q Search Ø R	eset				
③ Administration	↑ Time	↑↓ Action	†↓ Username	1↓ Description		
Cashier	06.02.2020 19:36:32	<pay> button (one step payment)</pay>	admin	Button action click (Ticke	t number: 111226110820, Amoun	t: 24,650.00)
П с	06.02.2020 18:50:01	<close> button (two step payment - second step)</close>	admin	Button action click (Ticke	t number: 980206184959, Amoun	t: 500.00)
	06.02.2020 18:49:54	<close> button (two step payment - second step)</close>	admin	Button action click (Ticke	t number: 980206184946, Amoun	t: 500.00)
🛷 Tickets	06.02.2020 18:49:24	<close> button (two step payment - second step)</close>	admin	Button action click (Ticke	t number: 980206184922, Amoun	t: 500.00)

For any of displayed columns in the table, there is appropriate field in the search panel which enables payment logs filtering by one or more set conditions.

(Note: system logs payment in two steps when lost ticket is charged from the Cashiers menu. As first step, dialog "<u>Charge lost ticket</u>" is opened. In the next step, after click on **Pay** button dialog "Pay lost ticket" appears for specification of payment method. In all other cases of payment, payment in one step is logged)

History cleanup

ARCHIVE ACTION

O DASHBOARD	Q Search O Reset	\bigcirc	
Cashier	† Time ↑↓		tion
	06.02.2020 19:36:32 <pa< td=""><td>Move old active tickets to</td><td>ion click (Ticket number: 111226110820, Amount: 24,650.00)</td></pa<>	Move old active tickets to	ion click (Ticket number: 111226110820, Amount: 24,650.00)
	06.02.2020 18:50:01 <cl< td=""><td>archive</td><td>ion click (Ticket number: 980206184959, Amount: 500.00)</td></cl<>	archive	ion click (Ticket number: 980206184959, Amount: 500.00)
🛷 Tickets	06.02.2020 18:49:54 <cl< td=""><td></td><td>ion click (Ticket number: 980206184946, Amount: 500.00)</td></cl<>		ion click (Ticket number: 980206184946, Amount: 500.00)
	06.02.2020 18:49:24 <cl< td=""><td>Active tickets before the specified date will be moved to</td><td>on click (Ticket number: 980206184922, Amount: 500.00)</td></cl<>	Active tickets before the specified date will be moved to	on click (Ticket number: 980206184922, Amount: 500.00)
	06.02.2020 18:48 <mark>,</mark> 24 <pa< td=""><td>archive</td><td>ion click (Ticket number: 980206183810, Amount: 500.00)</td></pa<>	archive	ion click (Ticket number: 980206183810, Amount: 500.00)
Park station status	06.02.2020 18:27:06 <pa< td=""><td></td><td>ion click (Ticket number: 110117040131, Amount: 40,850.00)</td></pa<>		ion click (Ticket number: 110117040131, Amount: 40,850.00)
	06.02.2020 8:02:09 <cl< td=""><td>28.01.2020 00:39:01</td><td>ion click (Ticket number: 111226110820, Amount: 24,450.00)</td></cl<>	28.01.2020 00:39:01	ion click (Ticket number: 111226110820, Amount: 24,450.00)
	06:02.2020 17:44:25 <cl< td=""><td></td><td>ion click (Ticket number: 111226110820, Amount: 24,450.00)</td></cl<>		ion click (Ticket number: 111226110820, Amount: 24,450.00)
	06.02.2020 11:02:32 <pa< td=""><td></td><td>gme (Broj kartice: 980203185913, Iznos: 6.650,00)</td></pa<>		gme (Broj kartice: 980203185913, Iznos: 6.650,00)
	06.02.2020 02:38:24 <cl< td=""><td>Cancel Move old tickets to archive</td><td>ion click (Ticket number: 980202090219, Amount: 9,150.00)</td></cl<>	Cancel Move old tickets to archive	ion click (Ticket number: 980202090219, Amount: 9,150.00)
	Range 1 - 10 From 176		2 3 4 5 6 7 8 9 10

In the case when automatic ticket transfer from active to archived tickets was not performed, accumulation of ticket in active ticket group can occur (for example, no vehicle left parking area using ticket with certain number and therefore ticket stayed in the group of active ones). This is a reason why, from time to time, it is needed to change status of some tickets from active to archived.

By clicking **Move active tickets to archive** command on History cleanup menu, pop-up dialog appears where operator can set limit date for archiving. All tickets created before set date, if still active, will be transferred to archived group. Archiving is triggered by click on button "**Move old tickets to archive**", while **Cancel** button is used to quit the command without any changes in the system.

DELETE ACTIONS

Over time, records are accumulated in the system, so it is recommended or even necessary to disburden database from record that are not needed any more. In the situation like this, one of the offered commands on the History cleanup menu can be performed:

- $\circ \quad \text{Delete events} \quad$
- Delete user logs
- Delete inactive tickets
- Delete tickets from archive

Same as for archiving, click on any of the delete commands throws warning about the triggered action with request to set limit date. All events, user logs, inactive or archived tickets created before set date, will be permanently deleted from the database.

Administration					
🗇 Cashier	11 Parking	†↓ Amount	†↓ Parking		†↓ Amount
 Cards Tickets 	50816 Parking Delete events	100.00	Parking Controller 01	Delete user logs	100.00
III Reports	50815 Parking Controller 01 All events before specified date will be deleted	24,650.00	Parking Controller 01	Delete user log before the specified date	24,650.00
Park station status	50814 Parking Controller 01	500.00	Parking Controller 01		500.00
🛗 History cleanup	50813 Controller 01 09.11.2019 00:43:51 0	500.00	Parking Controller 01	09.11.2019 00:45:11	500.00
Move old active tickets to archive	50812 Parking Controller 01	40,850.00	Parking Controller 01		40,850.00
Delete events	50811 Parking Controller 01 Cancel Delete events	6,650.00	Parking Controller 01	Cancel Delete user logs	6,650.00
Delete user logs Delete inactive tickets	50810 Parking admin Fast 20:09:56 ORENT over	100.00	Parking Controller 01	admin FIRST 20:09:56 CREDIT OVER	100.00
Delete tickets from archive	50809 Parking admin FIRST 04.02.2020 Cancel card activat Controller 01 ion ion	0.00	Parking Controller 01	admin FIRST 04.02.2020 DEBIT Cancel card a	activat 0.00
	Parking admin EPST 04.02.2020 Activate Card Turn	100.00	Parking	04.02.2020 Activate Card	d Turn

Delete is confirmed by click on button "Delete...", while Cancel quits initiated action.

(7) DASMBOARD						Search S7 R	eset					
												-
						_						
🖾 Cashier		†↓ Parking			î↓				(
Cards		↑↓ Id controller			Amount	†↓ Parking controller				÷		1↓ Amount
🛷 Tickets		50816 Controller 01	Delete inactive tio	ckets	100.00	Parking Controller 01		Delete	e ticket	s from	archive	100.00
I Reports		50815 Controller 01	Inactive tickets before the specified date	will be removed	24,650.00	5 Parking Controller 01	Tick	ets from a	chive before	the selected da	ate will be delete	24,650.00
Park station status		50814 Controller 01			500.00	Parking	4					500.00
🗰 History cleanup		50813 Parking Controller 01	04.02.2020 00:47:01	<u> </u>	500.00	Parking	07.	02.2019 (0:48:08		Ē	500.00
Move old active tic	ets 👘	50812 Parking			40,850.00	Controller 01						1
to archive		Parking				2 Controller 01	4					10,850.00
Delete events		50811 Controller 01	Cancel Delete inactive	re tickets	6,650.00	Parking		Cancel	De	lete tickets fro	om archive	6,650.00
Delete user logs		50810 Controller 01	admin FIRST 20:09:56	over	100.00	Parking	a desta					100.00
Delete tickets from	rus	50800 Parking	admin 04.02.2020	Cancel card activat	0.00	Controller 01	admin	FIRST	20:09:56	CREDIT	over	100.00
archive		Controller 01	20:09:09	ion	5.00	Parking Controller 01	admin	FIRST	04.02.2020 20:09:09	DEBIT	Cancel card act ion	vat 0.00

Parking controller

		Sma	artPark Con	troller
S.	martPark			
Start	Stop	Refresh		Clear Log
Web Socket Total clients	Service status: V	Neb Socket Server started at: http 3	p://+:80/sma	rtpark
Id Connect	ting time Ip addre	ess Session Id	Web server	User agent
1 28.1.202	0. 15:21:50 127.0.0.1		VMI105041	SignalR.Client.NetStandard/2.4.0.0 (Microsoft Windows NT 6.3.9600.
	0 15:21:55 27 220 7	8 182 baybw3mpiufmocftlamu1aci	VMI105041	Mozilla/5.0 (Windows NT 10.0: Win64: x64) AppleWebKit/537.36 (KH
2 28.1.2020 7 28.1.2020	0. 15:22:52 37.220.7	8.182 gowxp304pzaomlow2uj0rao3	VMI105041	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KH
2 28.1.2020 7 28.1.2020 System ever	0. 15:22:52 37.220.7	8.182 gowxp304pzaomlow2uj0rao3	VMI105041	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KH
2 28.1.2020 7 28.1.2020 System ever Type	0. 15:21:53 57:220.7 0. 15:22:52 37:220.7 nts: Event date	8.182 gowxp304pzaomlow2uj0rao3	VMI105041	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KH
2 28.1.2020 7 28.1.2020 System even Type Information	0. 15:21:53 57:220.7 0. 15:22:52 37:220.7 nts: Event date 28.1.2020. 15:22:59	8.182 gowxp304pzaomlow2uj0rao3 Event message Stopping service. Please wait	VMI105041	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KH
2 28.1.2020 7 28.1.2020 System even Type Information	0. 15:22:52 37.220.7 15:22:52 37.220.7 1ts: Event date 28.1.2020. 15:22:59 28.1.2020. 15:23:11	Event message Stopping service. Please wait Service is STOPPED!	VMI105041	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KH
2 28.1.2020 7 28.1.2020 System even Type Information Information	0. 15:21:53 57:220.7 0. 15:22:52 37.220.7 nts: Event date 28.1.2020. 15:22:59 28.1.2020. 15:23:11 28.1.2020. 15:23:11	Event message Stopping service, Please wait Service is STOPPED! Service is STARTED!	VMI105041	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KH
2 28.1.2020 7 28.1.2020 System ever Type Information Information Information	0. 15:21:53 57:220.7 0. 15:22:52 37.220.7 nts: Event date 28.1.2020. 15:22:59 28.1.2020. 15:23:11 28.1.2020. 15:23:11	Event message Stopping service. Please wait Service is STOPPED! Service is STARTED! Kontroler rampe: 'Ulazna rampa U1	', status kone	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KH
2 28.1.2020 7 28.1.2020 System ever Type Information Information Information Information	0. 15:21:53 57:220.7 0. 15:22:52 37:220.7 nts: Event date 28.1.2020. 15:22:59 28.1.2020. 15:23:11 28.1.2020. 15:23:11 28.1.2020. 15:23:11	8.182 gowxp304pzaomlow2uj0rao3 8.182 gowxp304pzaomlow2uj0rao3 Event message Stopping service. Please wait Service is STOPPED! Service is STARTED! Kontroler rampe: 'Ulazna rampa U1 Kontroler rampe: 'Izlazna rampa U1	*, status konek	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KH kcije: True, poruka: cije: True, poruka:
2 28.1.2020 7 28.1.2020 System even Type Information Information Information Information	0. 15:21:53 57:220.7 0. 15:22:52 37.220.7 nts: Event date 28.1.2020. 15:23:11 28.1.2020. 15:23:11 28.1.2020. 15:23:11 28.1.2020. 15:23:11 28.1.2020. 15:23:11 28.1.2020. 15:23:11	Event message Stopping service. Please wait Service is STOPPED! Service is STARTED! Kontroler rampe: 'Ulazna rampa U1 Kontroler rampe: 'Izlazna rampa I1' Barcode scanner: Barcode scanner	, status konek status konek a izlaznoj rar	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KH kcije: True, poruka: cije: True, poruka: npi 11, status konekcije: True, poruka:

Parking controller is separate web application used to manage parking controller resources and devices. If there are more than one, for each independent parking zone (or parking controller) in the parking space, one instance of this application is started. Start button establishes the connection with devices associated to parking controller. Stop button stops all services. Refresh button re-establishes connection with devices and refreshes displays. **System events** table (in the bottom part of the application window) displays details for all events occurred since last log clear – date when event occurred and event message.

For every user (administrator, cashier or supervisor) who is logged to application one item in the **Total clients** table is logged. This log shows time when user approached the application, IP address the approach is made from, along with session id, web server and user agent.

Park station status

This command is call for separate web application (Smart pay) used to handle paying terminals on the parking controller.

					Ð
SmartPart	CardTypes				
Administration	Search Parameters				
மீ Users					
🖵 Devices	Name	C Search (C) Reset			
Denominations					
🗖 Card types					⊕ Create
Advertisements	↓ Name	î↓ Image	†↓ Alle	owed	
Ø Settings	American Express	americanexpress.jpg		s.	0 Û
器 Events	Dina Card	dina.jpg	DinaCard	×.	0 Û
 Payments Transactions 	Maestro	maestro.jpg	Maestro		0
Reports	Mastercard	mastercard.jpg	mostercord	¢	0