Online Parking Calculator
Functional Specification

1. Description

The purpose of this document is to describe the functionality of an online parking calculator - http://grr.org/parking-calculator.php. The application gives the possibility for users to choose different types of parking places and different periods to park. For each parking type and depending on the selected time frame, there will be different tax calculated.

2. Scope

Document describes functionality of parking calculator form. Build-in functions, such as Calendar popup and Time-selection popup are outside the scope of this specification.

3. Functional Specification

3.1. The calculator form contains following fields:
"Choose a Lot" - drop-down list
"Entry Date" – Calendar field
"Entry Time" - Time field
"Leaving Date" – Calendar field
"Leaving Time" – Time field
"Calculate" - button
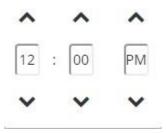"Cost" – text field

Calculator form mockup:

3.2 Using the calculator form
User can select one of available parking types from "Choose a Lot" drop-down list, as follows:
- Short-term parking
- Economy parking
- Long-term garage parking
- Long-term surface parking
- Valet parking

"Entry Date" and "Leaving Date" can be selected by clicking on calendar icon (next to relevant field) and selecting date from the Calendar popup. Both fields' default value is MM/DD/YYYY, i.e unselected.

"Entry Time" and "Leaving Time" can be set by clicking on time icon (next to relevant field) and using Time-selection popup:

User can change time either by using arrow buttons or by typing values manually.
Default value is 12:00 PM for both fields.

Below the calendar, the calculated time frame should be displayed in the following format:
(Days, Hours, Minutes), for example: (0 Days, 3 Hours, 0 Minutes).

1 day is considered as 24 hours.

"Cost" is calculated in Dollars, format is $XX; for example: $20

Before pressing 'Calculate' button, Cost (text field) is empty, i.e cost value and time frame are not displayed.

3.3 Cost is calculated based on the following criteria:

Parking type	Price per hour	Price per day	Prize per week
Short-Term Parking	$2 for 1st hour, 1$ for each additional ½ hour	$24	N/A
Economy Parking	$2 per hour	$9	$54
Long Term Garage Parking	$2 per hour	$13	$78
Long Term Surface Parking	$2 per hour	$10	$60
Valet Parking	$12 for the first 5 hours; $6 for every additional hour	$18	N/A

3.4 Additional checks
- When Valet Parking or Short-term Parking is selected, user should not be able to select time period longer than 1 day. If this happens, there should be an error message displayed
"You cannot select more than one day for this parking type" colored in red.
- When Long Term Garage Parking, Long Term Surface Parking and Economy parking types are chosen, user should not be able to select more than 7 days for parking. If this happens, there should be an error displayed "You are not allowed to park for such long period here" colored in red
- When Entry date and Leaving date are left unselected:
    o No cost should be calculated
    o Error message should be displayed "Please, choose valid entry and leaving dates" colored in red
- When invalid entry/leave time period is selected, upon pressing 'Calculate' button there should be an error message displayed "Please, enter valid date and time" colored in red

4. Use cases

Choosing Long-term Garage Parking for 1 day
1) *User opens parking-calculator page*
2) *User selects **Long-term Garage Parking***
3) *User selects Entry date = **10/11/2012***
4) *User selects Entry time = **15:30 PM***
5) *User selects Leaving Date = **10/12/2012***
6) *User selects Leaving Time = **15:30 PM***
7) *User presses Calculate button*
8) *Calculated Cost and time frame are shown - **$13 (1 Day, 0 Hours, 0 Minutes)***

5. Supported browsers
The application should be compatible with the following browsers: Google Chrome, Mozilla Firefox, and Internet Explorer.

Revision History

Version	Content changes	Author
1.0	Initial version	Panayot Solakov
2.0	Added application URL	Panayot Solakov
3.0	Added Valet parking with relevant cost calculation	Panayot Solakov
	Added additional period selection check for Valet parking	