Bb Personal Vehicle Tracker (BPVT)

Disclaimer

Your Blackberry **MUST** not be keyed into or held while you are driving a vehicle. Start the application before leaving and update the vehicle mileage before you leave (if required). Then set your Blackberry down and **DO NOT** pick it up or push buttons on it again until you arrive and are stopped. It is **dangerous** to operate a mobile device while driving and against the law in most jurisdictions. **Set it and forget it.** BPVT will continue to track even if the screen locks.

The maker of this program cannot be held responsible for accidents, injuries or expenses occurring from your use of the program.

USE THIS PROGRAM AT YOUR OWN RISK!!!

Note: Use of the GPS chip on your blackberry drains the batteries fairly quickly. It is recommended you use a Blackberry car adapter while using BPVT.

Introduction

Blackberry Personal Vehicle Tracker (BPVT) is a program designed for the Blackberry device. It will allow the user to track all items related to their vehicles including:

- o Mileage
- o Expenses
- o Regular maintenance
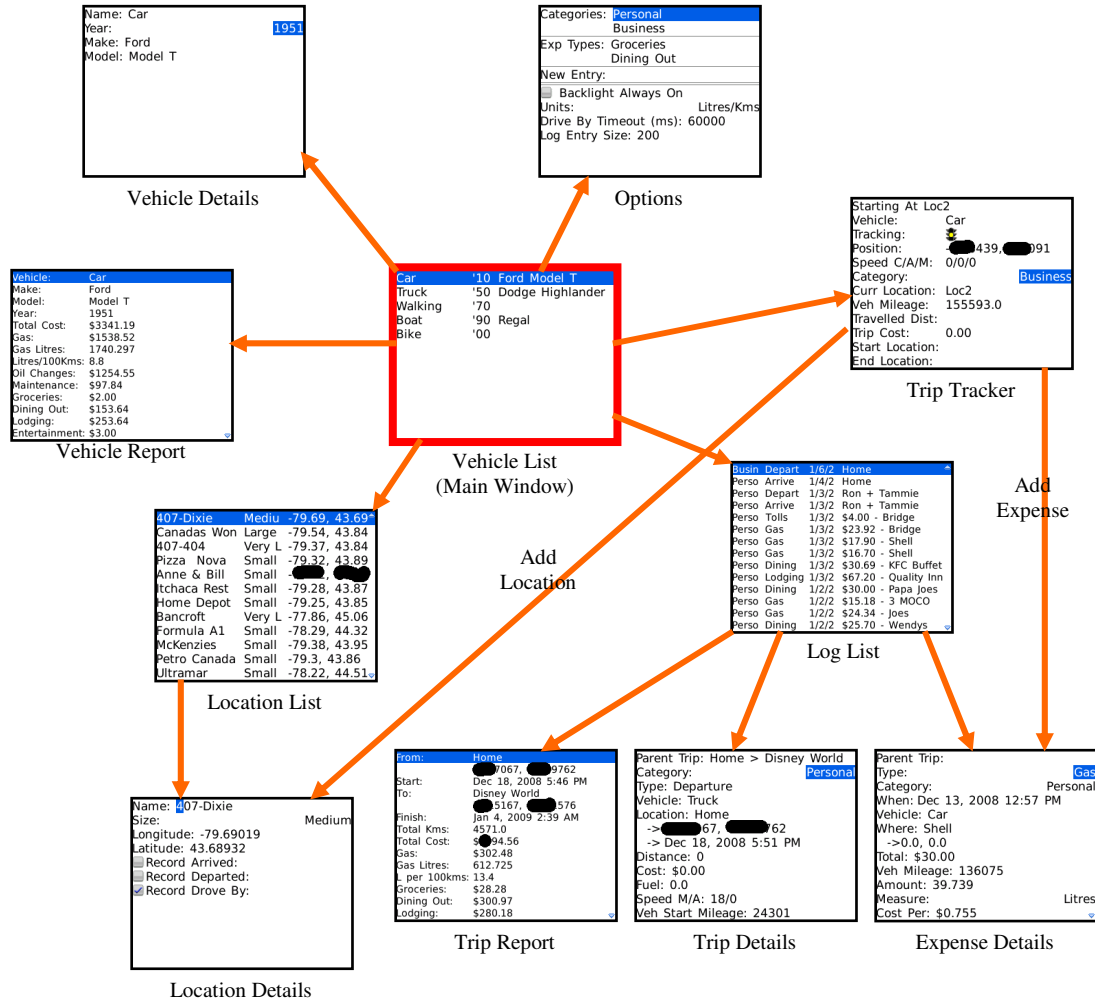
The main features of the application are:

- o GPS location tracking (arrivals, departures and drive by)
- o Multi-day trip tracking
    - o Multiple locations
    - o Expenses
- o Tracking of expenses and maintenance
- o Categorization of expenses and mileage

Permissions

BPVT requires the following permissions to work properly:

1. GPS/Location Data
2. Security Timer Reset

Screen Flow

Name: Car
Year: 1951
Make: Ford
Model: Model T

Vehicle Details

Categories: Personal
            Business
Exp Types: Groceries
           Dining Out
New Entry:
☐ Backlight Always On
Units: Litres/Kms
Drive By Timeout (ms): 60000
Log Entry Size: 200

Options

Starting At Loc2
Vehicle: Car
Tracking: 🌻
Position: ●439,●091
Speed C/A/M: 0/0/0
Category: Business
Curr Location: Loc2
Veh Mileage: 155593.0
Travelled Dist:
Trip Cost: 0.00
Start Location:
End Location:

Trip Tracker

Vehicle: Car
Make: Ford
Model: Model T
Year: 1951
Total Cost: $3341.19
Gas: $1538.52
Gas Litres: 1740.297
Litres/100Kms: 8.8
Oil Changes: $1254.55
Maintenance: $97.84
Groceries: $2.00
Dining Out: $153.64
Lodging: $253.64
Entertainment: $3.00

Vehicle Report

Car   '10 Ford Model T
Truck   '50 Dodge Highlander
Walking   '70
Boat   '90 Regal
Bike   '00

**Vehicle List
(Main Window)**

Busin Depart 1/6/2 Home
Perso Arrive 1/4/2 Home
Perso Depart 1/3/2 Ron + Tammie
Perso Arrive 1/3/2 Ron + Tammie
Perso Tolls   1/3/2 $4.00 - Bridge
Perso Gas   1/3/2 $23.92 - Bridge
Perso Gas   1/3/2 $17.90 - Shell
Perso Gas   1/3/2 $16.70 - Shell
Perso Dining 1/3/2 $30.69 - KFC Buffet
Perso Lodging 1/3/2 $67.20 - Quality Inn
Perso Dining 1/2/2 $30.00 - Papa Joes
Perso Gas   1/2/2 $15.18 - 3 MOCO
Perso Gas   1/2/2 $24.34 - Joes
Perso Dining 1/2/2 $25.70 - Wendys

Log List

Add
Expense

407-Dixie   Mediu -79.69, 43.69°
Canadas Won   Large -79.54, 43.84
407-404   Very L -79.37, 43.84
Pizza Nova   Small -79.32, 43.89
Anne & Bill   Small -●●, ●●
Itchaca Rest Small -79.28, 43.87
Home Depot   Small -79.25, 43.85
Bancroft   Very L -77.86, 45.06
Formula A1   Small -78.29, 44.32
McKenzies   Small -79.38, 43.95
Petro Canada Small -79.3, 43.86
Ultramar   Small -78.22, 44.51

Location List

Add
Location

Name: 407-Dixie
Size: Medium
Longitude: -79.69019
Latitude: 43.68932
☐ Record Arrived:
☐ Record Departed:
☑ Record Drove By:

Location Details

From: Home
              ●7067, ●9762
Start: Dec 18, 2008 5:46 PM
To: Disney World
              ●5167, ●576
Finish: Jan 4, 2009 2:39 AM
Total Kms: 4571.0
Total Cost: $●94.56
Gas: $302.48
Gas Litres: 612.725
L per 100kms: 13.4
Groceries: $28.28
Dining Out: $300.97
Lodging: $280.18

Trip Report

Parent Trip: Home > Disney World
Category: Personal
Type: Departure
Vehicle: Truck
Location: Home
  ->●●67, ●●62
  -> Dec 18, 2008 5:51 PM
Distance: 0
Cost: $0.00
Fuel: 0.0
Speed M/A: 18/0
Veh Start Mileage: 24301

Trip Details

Parent Trip:
Type: Gas
Category: Personal
When: Dec 13, 2008 12:57 PM
Vehicle: Car
Where: Shell
  ->0.0, 0.0
Total: $30.00
Veh Mileage: 136075
Amount: 39.739
Measure: Litres
Cost Per: $0.755

Expense Details

First Launch

Upon first launch of the program you will be prompted to select the location on the device to store the data. It will show all locations on the device (memory cards and internal storage). I suggest picking a memory card or at least a location that shows up when you connect your device to a computer.

* Empty *

Select storage location

SDCard/
store/

OK

Cancel
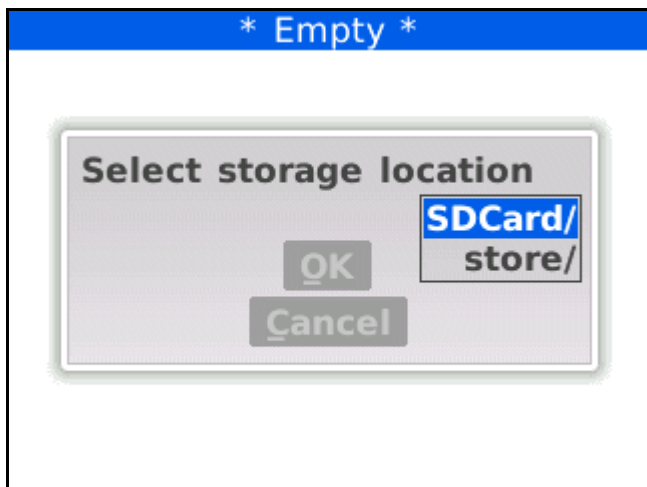
Scenarios

Getting Started

1. First thing you need to do is add your vehicles. Use the *Add Vehicle* menu option to add your vehicles. This can be bicycles and feet too to track exercising.

2. Next go outside and add your home as a new location. Start by selecting the vehicle you will be using and then choose the *Start Tracking* menu option. The *Trip Tracker* window will appear. Once the location is determined us the *Add Location* menu option of the *Trip Tracker* window.

3. Now you can start tracking your activities to and from that location. Whenever you get to a new location simply add it to track that location activity as well.

4. When you are at your destination simple exit the application

Hint: If you need to view another program simply press the End Call key. This will put BPVT program in the background.

Vacation Trip

1. Use the *Start Tracking* menu option after selecting your vehicle on the main window. On the *Trip Tracking* window use the *Start Trip* menu option. This will start a multi-day trip. All location stops and expenses will be marked as part if the trip.

2. When arriving at the final destination for the day or to mark a stop along the trip you can add a permanent or temporary location. A temporary location is used to add a stop that you will not visit often. On the *Trip Tracking* window use the *Add Arrival Entry* menu option. Once you add the location you can exit the program for the day.

3. The next day after you start tracking again, use the *Load Last Trip* menu option to continue the trip.

Hint: When you are on a multi-day trip and you add a location you will be prompted with "*Overwrite trip's existing To Location and To GPS Position?"*. Select *Yes* if you have arrived at the final vacation destination and *No* otherwise. For example, if you are traveling to Disney World and it takes you three days to get there. You would say *No* to each nights stop. However, when you arrive at Disney World you would say *Yes*. This way the Parent Trip will say Home to Disney World. Don't forget that on the way home you pick *No*.
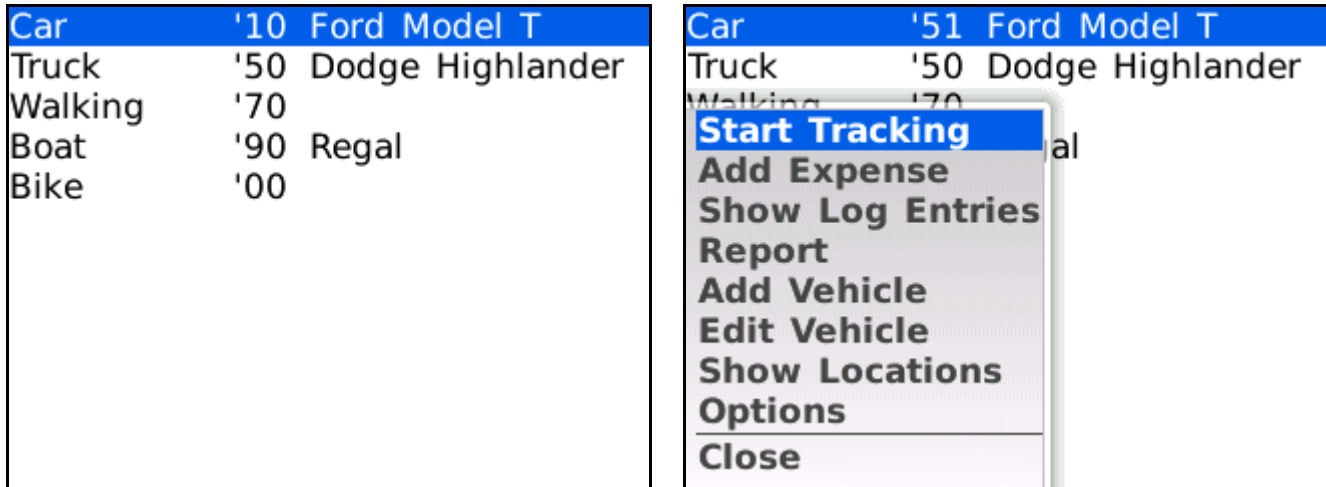
All expenses and location arrival/departures will be marked as part of this parent trip. Don't forget to load last trip when you start each day.

Expenses

1. You can add expenses from the main window or on the *Trip Tracking* window use the *Add Expense* menu option. If you are on a trip the expenses will be marked against that parent trip.

Screen Details

Vehicle List

Car	'10 Ford Model T
Truck	'50 Dodge Highlander
Walking	'70
Boat	'90 Regal
Bike	'00

Car	'51 Ford Model T
Truck	'50 Dodge Highlander
Walking	'70

Start Tracking
Add Expense
Show Log Entries
Report
Add Vehicle
Edit Vehicle
Show Locations
Options
Close

This is the main application screen. It shows the vehicles you are tracking.

Menu Commands

Start Tracking	Start tracking GPS location of the selected vehicle. This will show the Trip Tracker window.
Add Expense	Add an expense or maintenance record for the selected vehicle. This will show the Expense Details window.
Show Log Entries	Show the trips, expenses and maintenance log. This will show the Log List window.
Report	Display a report on the selected vehicle. This will show the vehicle report window.
Add Vehicle	Add a new vehicle to the list. This will show the Vehicle Details window.
Edit Vehicle	Edit the selected vehicle details. This will show the Vehicle Details window.
Show Locations	Show the locations you wish to have log records for. This will show the Locations List window.
Options	Change the program options. This will show the Options window.

Vehicle Details

```
Name: Car
Year:                    1951
Make: Ford
Model: Model T
```

The vehicle details window is used to add or edit the information for your vehicle.

Vehicle Report

```
Vehicle:          Car
Make:             Ford
Model:            Model T
Year:             1951
Total Cost:       $3341.19
Gas:              $1538.52
Gas Litres:       1740.297
Litres/100Kms:    8.8
Oil Changes:      $1254.55
Maintenance:      $97.84
Groceries:        $2.00
Dining Out:       $153.64
Lodging:          $253.64
Entertainment:    $3.00
```

The vehicle report window shows the expenses, mileage and maintenance information for a vehicle. This information is obtained by your record keeping through trip tracking and expense tracking.

Location List

This window shows all of the locations you want to track. Depending on the options selected for the location the program will track arrivals, departures and drive by entries.

Menu Commands

Edit	Edit the selected location. This will show the Locations Detail window.
Add	Add a new location to the list. This will show the Locations Detail window.

Location Details

This window allows you to change the details of a location. The size of the location controls when BPVT will indicate you are at the location. The larger the size the earlier you will be set as at the location. The latitude and longitude are in decimal degrees notation. The "Record …" checkboxes are used to give you control over what entries are logged. For example, a gas station will probably have all checkboxes unchecked. Thus no long entry is added by GPS. Log entries would only be for any expenses you enter. For a toll road entry/exit location you probable only want the Drove By checkbox checked.

Menu Commands

Set to Current Position	Use this option if you are tracking your GPS location. It will set the latitude and longitude to where you are now.
Set to Clipboard	Use this option to grab the latitude and longitude from the clipboard. The clipboard

Position	data processed is that from the Blackberry Maps application. Blackberry Maps has the menu option to copy the position to the clipboard.

Trip Tracker

```
Starting At Loc2
Vehicle:          Car
Tracking:         🚦
Position:         -   439,    091
Speed C/A/M:  0/0/0
Category:                         Business
Curr Location:  Loc2
Veh Mileage:   155593.0
Travelled Dist:
Trip Cost:        0.00
Start Location:
End Location:
```

```
Starting At Loc2
Vehicle:          Car
Tracking:
    Start Trip                  .6091
    Stop
    Load Last Trip                  Business
    Add Expense
    Add Location
    Update Vehicle Mileage
    Reconnect GPS
    Change Option
    Close
```

The Trip Tracker window is where the GPS tracking is monitored. BPVT will start tracking your GPS location **only** when this window is displayed. Once the window is displayed the first time tracking continues no matter what screen you are on until you stop it or exit the application.

There are two types of trips BPVT can monitor, single location trips (i.e. home to the grocery store) and multi-stop trips (i.e. a vacation). When you start a trip or load the last trip BPVT will monitor and record all mileage and expenses as one long trip. Using this you can see the cost of the trip overall.

The "Tracking" stop light shows your status:

Off	The initial GPS signal has not been acquired or GPS tracking is turned off.
Red	GPS signal temporarily lost. BPVT will attempt to reacquire the signal periodically.
Yellow	GPS signal acquired and location is being tracked.
Green	GPS signal acquired and a multi-stop trip is being tracked.

Menu Commands

Start Trip	Use this option to start tracking a longer (multi-day) trip. All expenses, arrivals and departures will be associated to one trip.
Monitor	Use this to start monitoring the GPS for location arrival/departures. Monitoring is turned on by default the first time the Trip Tracker window is displayed.
Stop	Use this to stop the GPS monitoring.
Load Last Trip	Use this option to load the last trip you were on so that expenses, arrivals and departures will be associated to that trip.
Add Expense	Use this to add an expense to the log.
Add Location	Use this to add a location you want to monitor for arrivals, departures and expenses.
Update Vehicle Mileage	Use this to update the current vehicle mileage. Due to the way the GPS functions it is impossible to match the vehicle mileage exactly. This will also allow you to update the mileage in case you made some trips that were not tracked.

Reconnect GPS	The GPS will automatically try to reset the GPS if the signal fails. However, you can use this option to try a reconnect manually.

Note: During my testing I have noticed the Blackberry looses connectivity fairly often sometimes, especially when switching between applications.

Log List

The log list is displayed a page at a time (page size is determined by the options page).

Menu Commands

View	Use this to view the log entry.
Next Page	Display the next page of entries.
Previous Page	Display the next page of entries.
Report	Display a report for the selected trip or view the non-trip log entry.
Export Trip Data	Will export the selected trip data. If no trip is selected then no data is selected. Data is exported to the same location as all data files (BlackBerry\bbpersvehtracker) in the location you selected the first time you started the application.

Expense Details

Expense details window shows and allows entry of expense data. Categories and types can be added on the Options window.

Trip Details

```
Parent Trip: Home > Disney World
Category:                    Personal
Type: Departure
Vehicle: Truck
Location: Home
  ->      )67,       762
  -> Dec 18, 2008 5:51 PM
Distance: 0
Cost: $0.00
Fuel: 0.0
Speed M/A: 18/0
Veh Start Mileage: 24301
```

Trip details window allows you to view and change the information for a trip entry.

Trip Report

```
From:           Home
                  7067,      9762
Start:          Dec 18, 2008 5:46 PM
To:             Disney World
                  5167,      576
Finish:         Jan 4, 2009 2:39 AM
Total Kms:      4571.0
Total Cost:     $  94.56
Gas:            $302.48
Gas Litres:     612.725
L per 100kms: 13.4
Groceries:      $28.28
Dining Out:     $300.97
Lodging:        $280.18
```

Trip report shows the time, mileage and expenses occurred on a trip.

Options

Use the options window to change how the program operates.

Options

Backlight Always On	Keep the backlight on all the time. This should only be used if you are plugged in your Blackberry. If this option is unchecked BPVT will turn the backlight on when arriving, departing or driving by a saved location.
Drive By Timeout	This option indicates how long BPVT will wait for you to drive by a location before recording the arrival. This is in milliseconds (1 second is 1000 ms).
Log Entry Size	This option is for the size of the log list pages. The larger the number the longer it will take to load the window.

Menu Commands

Add Category	Use this option to add the *New Entry* text to the category list.
Add Expense Type	Use this option to add the *New Entry* text to the expense type list.