

Exhibit 2001

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

Geotab, Inc. and TV Management, Inc. d/b/a
GPS North America

Petitioners,

Case IPR2016-01278

v.

PerDiemCo LLC

Patent Owner.

**DECLARATION OF DARRELL DIEM IN SUPPORT OF PATENT OWNER'S
PRELIMINARY RESPONSE PURSUANT TO 35 U.S.C. § 313 AND 37 C.F.R. § 42.107**

I, Darrell Diem, declare as follows:

1. I am the sole named inventor of U.S. Patent No. 9,071,931 (“the ’931 Patent”), the challenged patent at issue in this proceeding. I make this Declaration upon personal knowledge and, if called upon as a witness, I could and would testify as to the matters recited herein.
2. I am currently a middle school computer science teacher at St. John the Baptist Catholic School in Madison, Alabama. I have previously been employed as a software engineer at Motorola Inc., Harris Corporation, Time Domain Corporation, and others.
3. The initial genesis for the invention claimed in the ’931 Patent came in 1997, when my daughter was driving to Florida State University from our home in Alabama. While driving along Interstate-10, at night, her car’s engine failed. She called me, upset and frightened,

saying that she didn't know where she was. I likewise was upset that I didn't have a good way of helping her, because I didn't know where she was.

4. From my experience as a software engineer in the telecommunications space, I was aware that cell towers knew the approximate location of cell phones that were communicating with them. Thus, I started thinking about how to create a location-tracking system that would allow individuals to be apprised of the location of their family and friends, while protecting the security of this location information so that it could not be misused. I further wanted for users to be able to access and utilize this proposed system through their cell phones.

5. At that time, in 1997, cell phone technologies were not advanced enough to make my hypothetical system a reality. In the 2002-2003 timeframe, however, cell phones became increasingly "computer-like," with large graphic-enabled screens and Internet connections. I recognized that this sort of user interface could help make my proposed system a reality, by allowing users to communicate with Internet servers from their mobile phones and upload location information or geographic zone information to these servers, where this information could be distributed and protected as desired. Thus, I redoubled my efforts to create a comprehensive location-tracking system that would execute these functions.

6. By late 2004, I had written much of the computer code for my proposed system. Attached hereto as **Exhibit A** is a computer code file from December 10, 2004, showing how data regarding mobile phones (line 24), groups (line 30), access codes (line 28) and geofence zones (lines 34-40) could be uploaded to a server (lines 10-12) in my system. The dialog window on the second page of this document shows that this source code file was created on December 10, 2004. (See <https://support.microsoft.com/en-us/kb/299648> for an explanation of

“Created” and “Modified” dates for documents in Microsoft file system formats, and how the “Modified” date reflects the actual creation date of the document).

7. I continued to create my proposed system throughout late 2004 and into early 2005. Attached hereto as **Exhibits B-D** are three versions of a beta user manual that I created for my system. As shown on the first page of these documents, they bear a “2004-2005” copyright date, and I did indeed create them from late 2004 into early 2005.

8. By May 13, 2005, I had conceived all elements of my system. Attached hereto as **Exhibit E** is a screenshot showing my registration of the website name “perdiemco.com” on May 13, 2005. I did not register for this website name until I had conceived all elements of my location-tracking system and was prepared to begin commercializing it. Thus, this screenshot refreshes my recollection that I had fully conceived all elements of my location-tracking system by no later than May 13, 2005.

9. My location-tracking system is the same system described and claimed in the '931 Patent. While the '931 Patent is a continuation patent, its specification is substantively identical to the specification for the first patent application that I filed on my location-tracking system, on December 23, 2005.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on October 6, 2016, in Madison, Alabama.



Darrell Diem

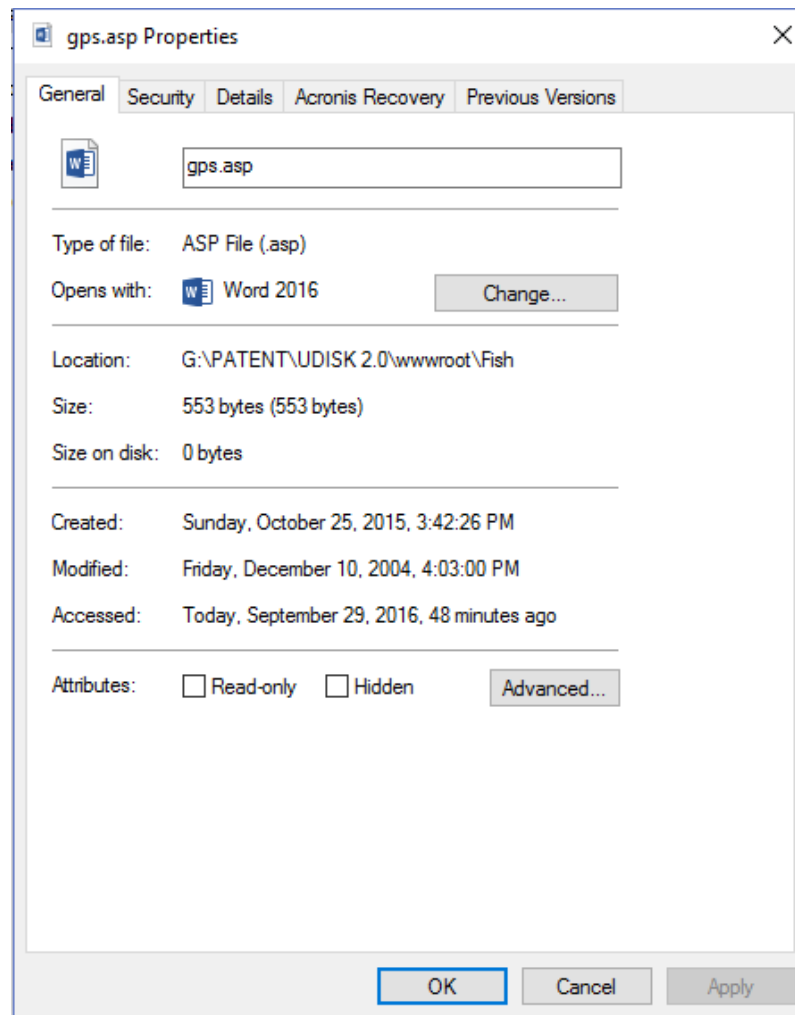
EXHIBIT A

```
1  <%@ Language = <%@ Language="VBScript"%>
2  <%
3
4  'lists all fields and creates new plot file
5
6  strStuff = Request.QueryString("phone")
7
8  SQL = "SELECT * FROM STD WHERE " & "Phone='" & strStuff & "' " & "'+';"
9
10 set conn = server.createobject("ADODB.Recordset")
11 conn.CursorLocation = 2 'adUseServer
12 conn.open SQL, "DSN=GPS"
13
14 Dim myNumber
15 myNumber = 1
16 plotFile = strStuff+".asp"
17 err=0
18
19 path = Server.MapPath("www.ddiem.com/fish/darrell.txt")
20 set fs = CreateObject("Scripting.FileSystemObject")
21 set file = fs.CreateTextFile("d:\Customers\user1087720\www\fish\"+plotFile , true, false)
22 file.WriteLine("#tms-marker")
23 Response.Write("</BR>")
24 Response.Write conn("phone")
25 Response.Write("</BR>")
26 Response.Write conn("name")
27 Response.Write("</BR>")
28 Response.Write conn("code")
29 Response.Write("</BR>")
```

```

30 Response.Write conn("group")
31 Response.Write("</BR>")
32 Response.Write conn("telco")
33 Response.Write("</BR>")
34 Response.Write conn("fence_ul")
35 Response.Write("</BR>")
36 Response.Write conn("fence_ur")
37 Response.Write("</BR>")
38 Response.Write conn("fence_ll")
39 Response.Write("</BR>")
40 Response.Write conn("fence_lr")
41 Response.Write("</BR>")
42 Response.Write conn("notify")
43 Response.Write("</BR>")
44 Response.Write conn("counter")
45 Response.Write("</BR>")
46 do while myNumber <= Cint(conn("counter"))
47     myStuff = "DTA_" + Cstr(myNumber)
48     myStuff = Cstr(myStuff)
49     Response.Write(Cstr(myNumber))
50     Response.Write(": ")
51     Response.Write conn(myStuff)
52     file.WriteLine(Cstr(conn(myStuff)))
53     Response.Write("</BR>")
54     myNumber = myNumber+1
55 loop
56 file.Close
57 'Response.Write("END")
58 conn.close

```



```
59
60  if err<>0 then
61      response.write("</BR>")
62      response.write("file not made!")
63      response.write("</BR>")
64  else
65      response.write("</BR>")
66      response.write("OK!!")
67      response.write("</BR>")
68  end if
69
70  %>
```

EXHIBIT B

PerDiem PLT Personal Location and Tracking

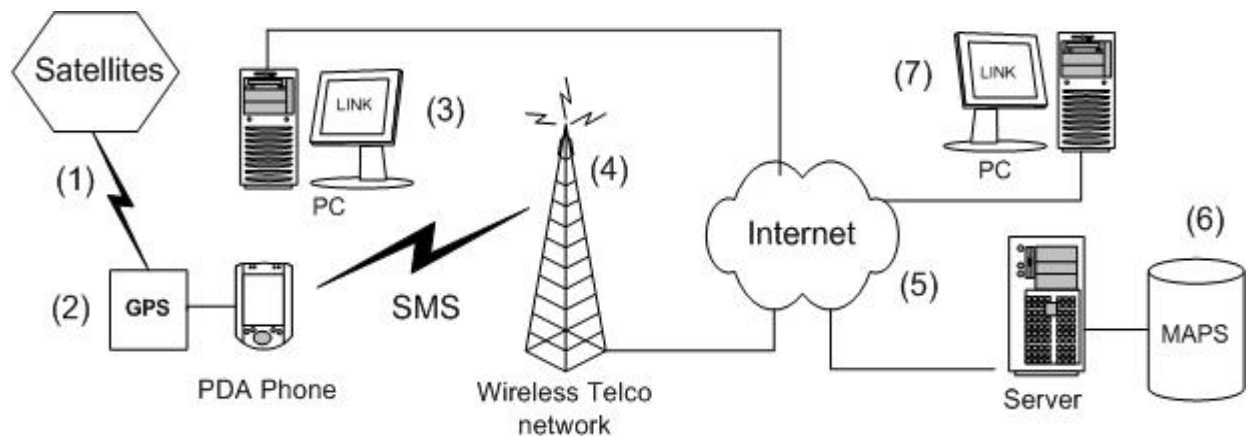


Rev 1.1.0

PerDiemCo is a PDA/Phone application for providing Personnel Tracking using your GPS receiver data. With the PerDiemCo software on your PDA or Phone you can do the following:

- **Show** your PDA or Phone's current location on a Map.
- Establish geographic Zones with entry & exit notification.
- Selectively **send** your current **location** as a Map to others.
- **Provide 'coded' web access to your Maps.**
- **View location** and **tracking** on the PDA or on a PC Map.
- Create **Buddy List location maps** on the PDA and on the map Server.
- Take **photos** & provide Location or Map based display.

System Architecture



(Fig. 3a)

- (1) Satellite data is received by the GPS device.
- (2) The PerDiemCo software decodes and displays the Location information.
- (3) A data location packet from the PDA Phone to the Server.
- (4) The SQL Query is processed and a Map is created on the Server. If an zone violation is included in the Queryt, a notification is emailed to that address. The Map link also includes time, Current Speed, Max Speed, and direction of travel.

- (5) To view the Map requires the phone number plus the appropriate Code. Others PC(3) can also view the response to PC(7) if desired and if they have the Code.
- (6) When a link is requested on the PerDiemCo Web Page or in the email link, the Map showing the location of the PDA Phone (2) will be displayed.

Tap the PerDiemCo Icon to launch the PerDiemCo GPS application.
The GPS receiver should be connected prior to starting PDGPS.

LAUNCH SCREEN

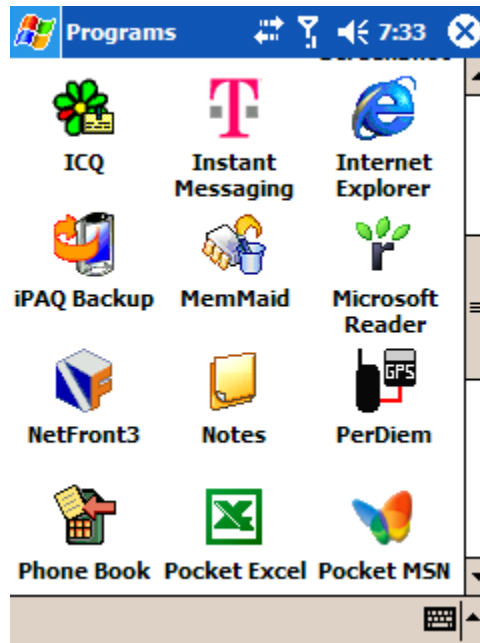


Fig. 1

Installation:

1. Use the INSTALLER software to install the Personal Tracker.
2. Remove PDA from cradle.
3. Turn on WiFi or wireless data connection.
4. Connect, or activate the connection between your PDA and GPS.
5. Start PerDiemGPS by tapping the PerDiem icon on the PDA.
6. On the Main Screen (Fig.1), tap the Config button.
7. On the Config Screen (Fig. 2),enter a code (i.e. 1234).
8. On the Config Screen enter your phone number.
9. On the Config Screen enter your Map server Domain Name.
10. Tap the SAVE button to save your config settings.
11. CLOSE the config screen.
12. Tap the GPS button on the Main screen (Fig. 1).
13. Tap the GPS Radio Button on the GPS screen.
14. Tap the START button, GPS data should display in data window.
15. Tap the close button to return to the Main Screen.
16. Be sure you are outside and your GPS is 'locked in'.

17. Tap the MAPS button and tap the Map button on the screen.
18. The MAP screen (Fig. 3), should show your current location on a map.



Fig. 1 Main Screen



Fig. 2 Config. Screen

PDGPS requires no on-board maps. You do not need to plan which map file to load for a trip. Using the wireless connection on your PDA phone and the data from your GPS you can view maps whenever your PDA data phone is connected.

Box (Zone2).

Yellow box.

Typical Map:

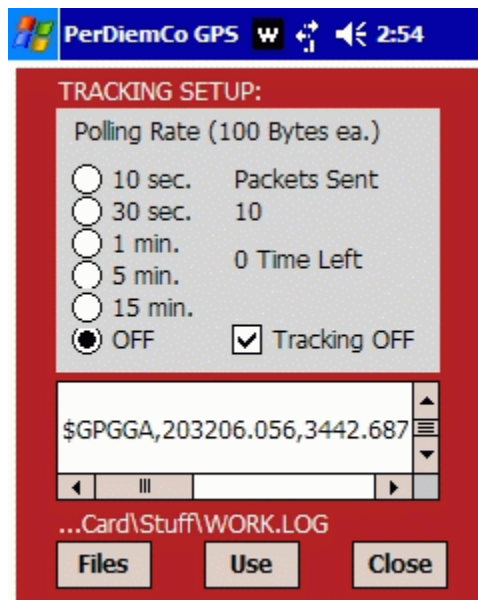
Load a map using current Lat and Lon.
 You are here: Black box with white outline.
 Track indicator: Sequential Black squares.
 Zone or 'Fence'. Red box (Zone1), Blue

Contact name location, if used, is a small



Fig. 3 MAP Screen

To initiate real-time tracking select SETUP from the GPS Page. Set the interval for data packets to be sent to the server. Remember that less frequent rates will use less of your wireless data budget.



Setting TRACKING ON will collect all data and provide a 'trail' on a map using the PDC web pages. Records collected are limited, so set the polling rate to be longer for fewer records in the trip database.

Time Left refers to time till the next Packet Send operation.

The \$GPGGA... is raw GPS data from the selected file. \$GP indicates a valid GPS Log file. This

is useful in selecting a file to 'run' , since not all log files contain GPS data.

VIEWING PERSONAL TRACKING and LOCATION MAPS

The 'CODE' entered on the CONFIGURATION page and your device phone number will be needed by anyone you select to view your web position data. See Fig xx below:

PerDiemCo Map View - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites

Address <http://www.perdiemco.com/contact.htm>

Google cingular sms page

ddiem.com

PerDiemCo Contact Viewer for displaying Contact Map created with PerDiemCo Tracking Software.

This information requires a user access Code!

Please enter Contact ID and Access Code

ContactID

Code

Reset Send now

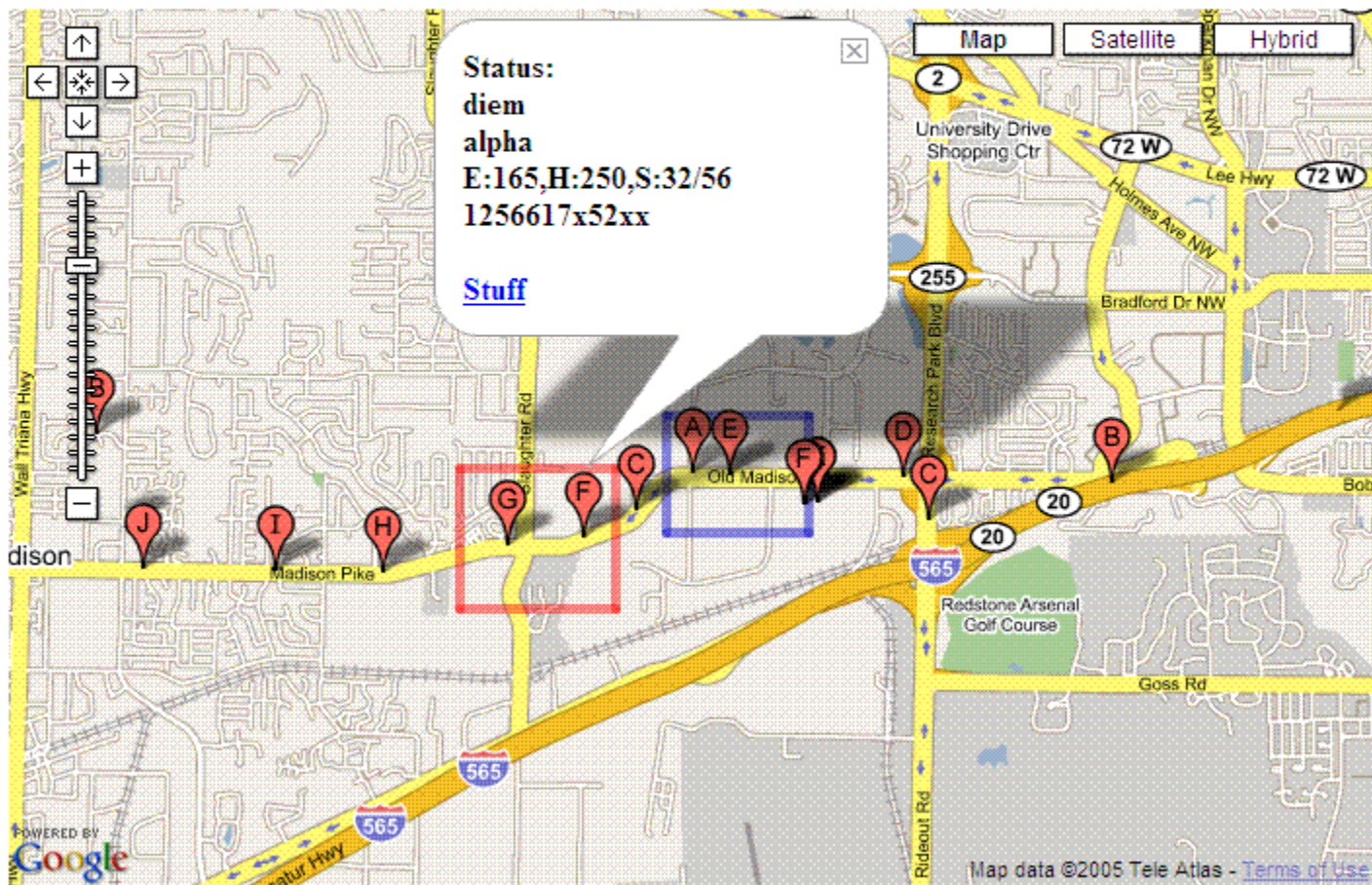
You create your own codes. With this feature, only those with the code may inquire as to where you are and view a Map via the Internet. The requester uses your phone number and the Code to access the web site to view your location on a map.

PC Display of GPS Tracking and Zone Data (Above and Below)

[BACK](#)

Code/Group Name and/or Phone#:

size



Taping any Position Icon will display Position information for that location. Identification by name and Group as well as movement data is displayed. Movement Information:

E: Is Elevation/Height in feet.

H: Is Heading/Direction in Degrees (Zero is North & 180 is South).

S: Is Speed, 1st number is current speed & 2nd is max speed between

PERDIEM2579

icons.

Web Link (Stuff) is for user defined connection to associated Pages, if needed.

Fig. 6

ZONE CREATION

[BACK](#)

Enter KEY and Target Phone#: Notify info

--	--	--

Zone1 Zone2

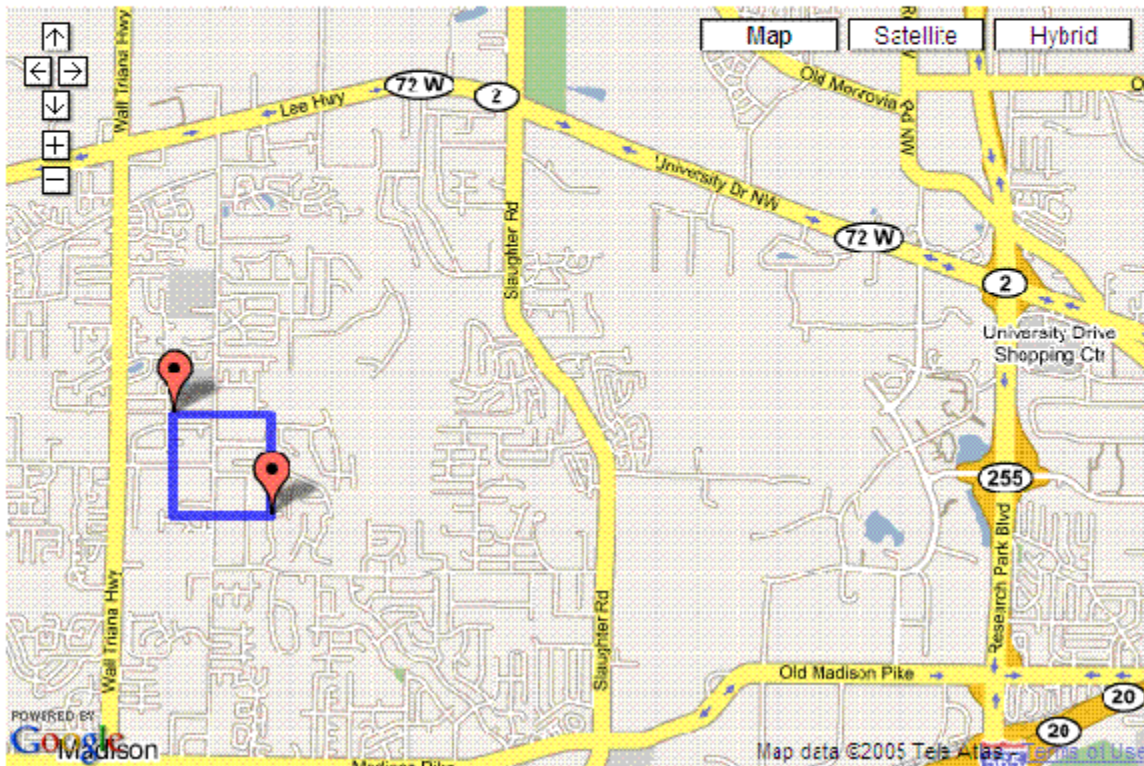


Fig. 8

Two Zones can be created. Zone1 will be displayed in Red and Zone2 will be Blue. To create a Zone, tap the screen in the upper left location for a box and then tap for the lower right hand corner of the box. Enter the code provided for the PDA/Phone, enter the Phone number (i.e. 12565551212). Next enter the SMS or email for the notification about Exit/Entry of the Zone.

Select either the Zone1 or Zone2 button and tap 'Click'. That's it! The Zone will load on the PDA/Phone the next time GPS is selected on the START Button is taped. The Zone will display on both the PC Map and the PDA/Phone Map.

PDA SETTINGS FOR TRACKING ACCESS:

Tap the *Config. Button* to display the following screen:

CODE Entry Text Box
PDA Phone number
Log File Name
Server Domain name

The screenshot shows a PDA configuration screen with a red background. At the top is a blue header bar with the Windows logo, the word 'Start', and system icons for connectivity and time (3:39). Below the header are four input fields with corresponding buttons: 'Code:' with '3333' and a 'Load' button; 'Phone#' with '12564798954' and a 'Save' button; 'LogFile Name:' with 'log.log'; and 'Domain or IP Address' with 'www.PerDiemCO.com'. At the bottom of the red area are three buttons: '...', 'Log Off', and 'Close'. A small keyboard icon is visible at the bottom right of the screen.

Fig. 9

Set the CODE to the desired setting.

REMEMBER!

CODES can be changed at any time.

CODES can be alphanumeric.

CODES must be between 4 and ten characters in length.

CODES must be used for all Tracking activity.

When saving Log files the name entered here will be the name of the Log file.
Server Domain name is the name of the Map Server for your PDA or Phone.

MANUAL (Local) SEND of a Map request:

If the GPS is providing 'live' data a link may be sent by tapping the *Send button* on the GPS Page at any time. The Map request will create a new map on the Map Server. The Map ID will be the phone number plus the current code.

GPS Screen

GPS Grid, Port and Baud settings, best left with defaults for automatic configuration.

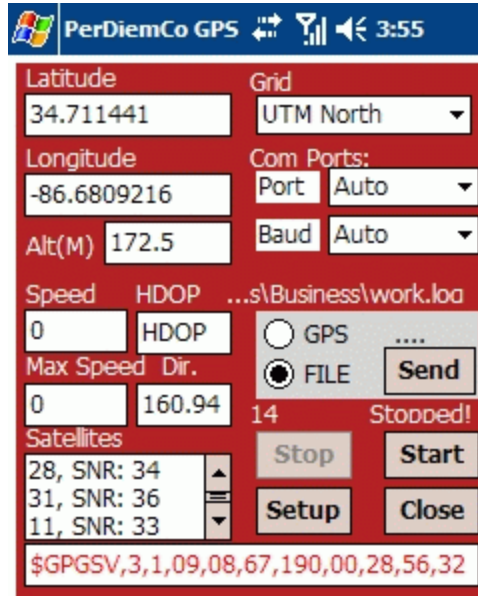


Fig. 12

All data sent in Map requests comes from this GPS screen (Fig. 12).

GPS Settings: Controls the selection of, Baud rate, and Port # for the connection.

Latitude & Longitude: Indicate current location.

HDOP or **H**orizontal **D**ilution of **P**recision, is quality of the data, high values are bad!

Speed & Max Speed: Current speed and fastest speed (MPH) during the current interval.

Alt(M): Current altitude in Meters.

Dir.: Direction in degrees. Zero indicates North and 180 indicates South.

Satellite Data: All visible satellites and their ID #'s and signal strength are listed.

PDA Maps

A map can be displayed on the PDA if an internet connection is available (Phone data link or 802.11).

The map can be scrolled up-down or right-left for viewing.

MAP: TOP BUTTONS:

The MAP button refreshes the image from the Server.

The LOAD button Loads or re-loads a Map.

The TRACK button activates on-screen plotting of GPS data.

The PAUSE button Pauses a data file Plot.

The X button toggles between the Map and the GPS Data screen.



Fig. 13

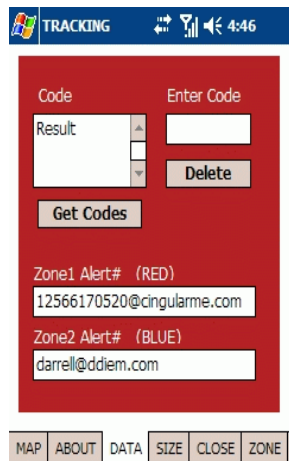


Fig 14

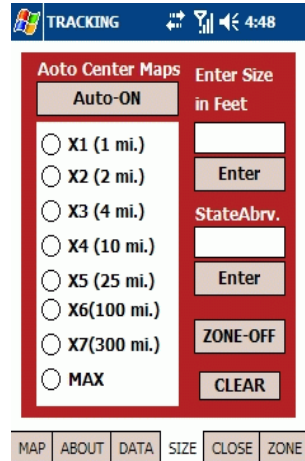


Fig 15

BOTTOM BUTTONS:

The MAP Button activates the Map screen (shown above).

The CLOSE Button returns you to the MAIN screen (Fig xx).

The DATA Button opens the Zone and CODE data screen (Fig xx).

The SIZE Button opens the Map size, Auto center and Zone control screen.

The ZONE Button opens the Zone/fence creation utility screen.

The Contact Screen:

The Contact screen is used to search your contact list for Street addresses and Zip codes. Enter the target last name and tap search. Tap again for multiple last names.

ADD2LIST: will add displayed address to the list box.

REMOVE: will remove displayed address from list box.

USE!: will load and put selected address in the banner at top.

Tap ADDRESS1/2 to toggle which address to add to the list.

GetMap will retrieve the Map, View will display the Map.

Select the Scale for the Map of the Contact location. The Location will be a Yellow Box. This Box will also be visible on the Tracking Map (Fig. xx). The Map will automatically display if GETMAP is invoked. If the Map has already been downloaded the VIEW button can be used to

LOAD & View the Map.

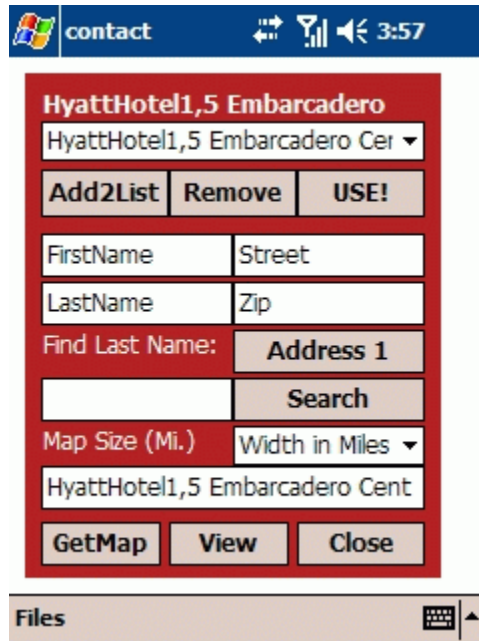


Fig. 17

Driving BigButton Panel

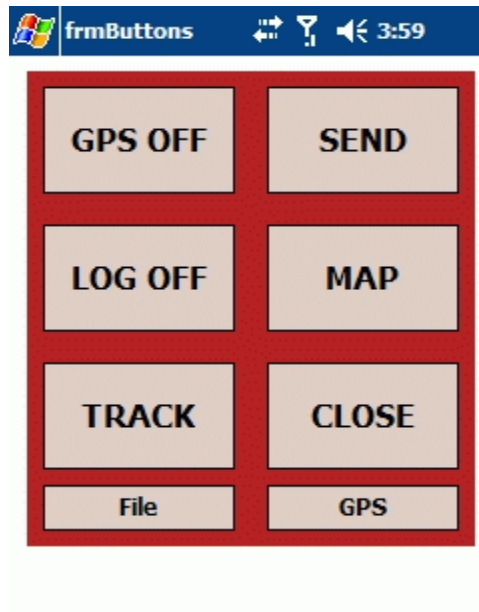


Fig. 19

Tap the Big Buttons menu item to display the Driving Control Panel. These buttons provide BIG, quick & easy set of commands when a quick change in program status is needed or to send a position link while underway.

TRACKING:

To minimize data usage & cost select longer intervals for Polling (sending data). A timer selection on the tracking page (Fig. 20) sets the time interval for capturing location data and sending it to the server database. The file creates a Map with discrete Time Stamps for each plot point. This tracking map is accessible only with the correct UserID and Code. When Polling is ON packets are sent to the Server at the selected rate. If Trip is ON then a new record is created on the Server for each packet. There is a limit of 1000 records on the Server so use caution in setting a Polling rate for the Trip mode. Use the Get Codes option on the MAP/DATA screen (Fig. 14) to manage/delete old records.

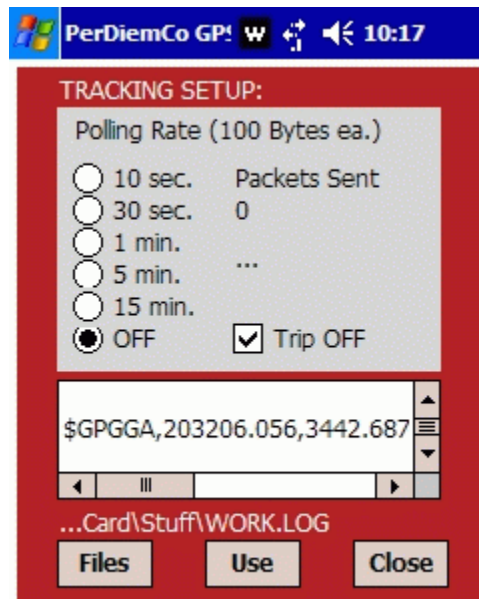
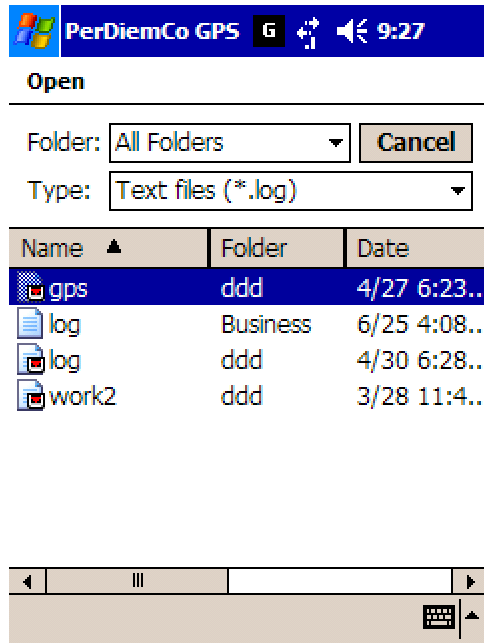


Fig. 20

Tracking Setup Options:

- Number of Location Packets sent.
- Selectable intervals to send Location Packets.
- Start and Stop and Reset Timer.
- Select a log file to run in simulation mode.
- The GPS raw data is displayed to insure that the 'Log' file is really a GPS data file.

(See below for Log file selection)



Log file selection Menu

Tap the file name to select and load..

File Folder and file type selection. File Typesw displayed in upper window, file names displayed in lower window.

PC Web Access Main Screens

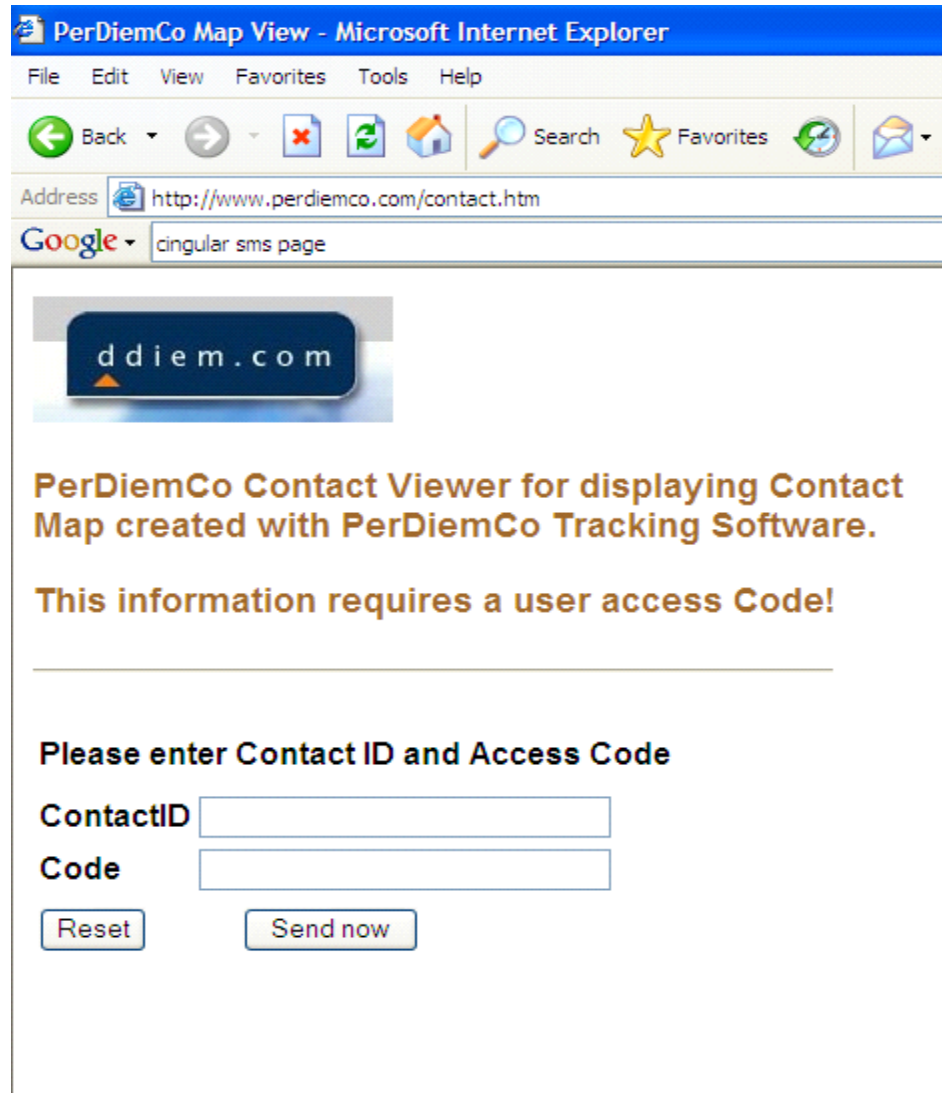


PerDiemCo Map Viewer for displaying Maps created with PerDiemCo Tracking Software.

Member links require a user login Code!

Free Map	Map
Free Track	Track
Free Picture Show	Pictures

MEMBER LogIn	LogIn
Member Map	Groups
Member Zone Maker	Zone Maker
Member Picture Map	Picture Map
Member Picture Edit	Picture Edit
MEMBER LogOut	LogOut



GPS (Bluetooth)

The T Bluetooth connection is set up as follows:

1. With the PDA communications software establish/define a connection (partnership) with the GPS.
2. Start PerDiemGPS and select the CGPS. Screen (Fig. 2).
3. Tap GPS then Tap Start. (Port and Baud settings do not need to be set.)
4. A connection should start and be indicated by the NMEA data string activity at the lower part of the screen (Fig. 6, GPS data).
5. After the initial setup the Bluetooth connection may be started and managed using the Stop/Start buttons on the GPS screen (Fig. 2).

Tracking requires registration with the PerDiemCo service center to set up the database with the user tracking information. Send an email with the following information to:

info@ddiem.com

User name

PDA Phone Number

Phone service Provider (e.g. Cingular, Verizon, etc.)

User e-mail address

Confirmation will be returned and start-up instructions will be emailed when the profile is created.

EXHIBIT C

PerDiem Location and Tracking (PLT)



Rev 1.1.0

PerDiemCo is a PDA/Phone application for providing Personnel Tracking using your GPS receiver data. With the PerDiemCo software on your PDA or Phone you can do the following:

- Show your PDA or Phone's current **location** on a Map.
- Establish geographic **Zones** with entry & exit **notification**.
- Selectively **send** your current **location** as a Map to others.
- **Provide 'coded' web access to your Maps.**
- View **location** and **tracking** on the PDA or on a PC Map.
- Create **Shared Zone and location maps** on the PDA and on the map Server.
- Take **photos** & provide **Location** or Map based display.

TYPICAL OPERATION

PerDiemCo Location and Tracking software is typically used in the LOCATION mode. This means that the GPS connection is active and the TIMER is set to periodically send Location Packets. If TRIP is OFF Location Packets will update only the current location record in the Data Base. If TRIP is set to ON, each Location Packet will be saved in an individual record on the Data Base. These records can be displayed as a 'Mapped Track' on the PDA, Phone, or a PC.

If TRACKING is set to TRACK ON, on the MAP Screen (Fig. 7.0), an updated tracking Map will be wirelessly delivered and displayed on the device. This transaction will use approximately 30K per Map. This Map will be re-positioned to always be centered. Each additional 'track' (Black Square) showing current location will be added at this center point.

ZONE MANAGEMENT

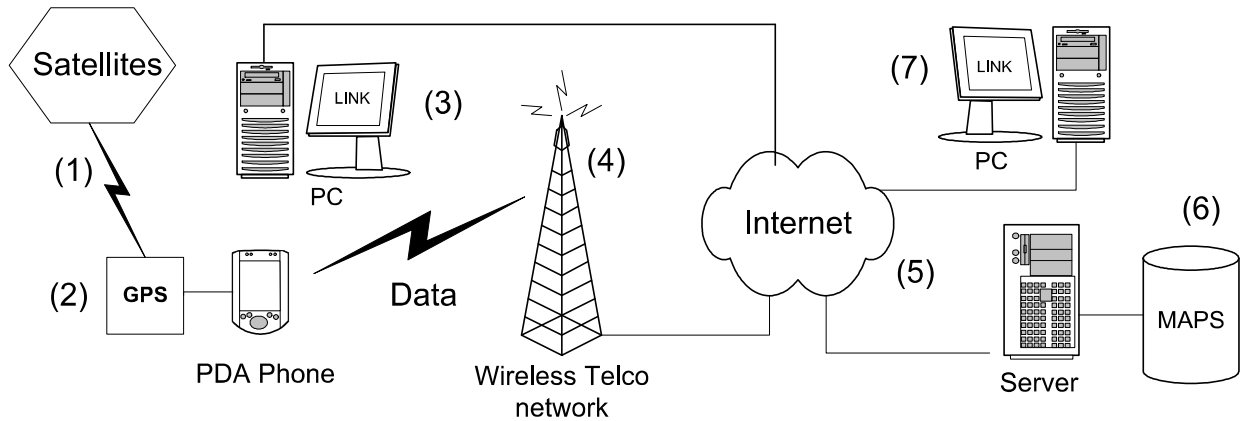
Zones are geographic boundaries defined by Latitude and Longitude coordinates. If the GPS passes over a 'boundary' an exit or entry alert is issued. A notification is sent to one or more individuals that are defined when the Zone is created. These addresses are displayed on the MAP DATA screen (Fig. 8). Zones are usually created using the Web Zone Tool on <http://www.PerDiemCo.com/PDC.htm>. Three types of Zones can be created. Two are standard Zones defined as ZONE1 and ZONE2. Zone1 is displayed in Red and Zone2 is displayed in Blue. These are useful for Start and Finish tracking. The third type of Zone is a SHARED zone. A code is used to define this Zone. By sharing the Phone number and Code others can 'load' this Zone into their device and it will respond with alerts to the defined addresses. This is a useful way of providing group tracking and location management.

On Phone devices, only the ZONE1 (Red) Zone can be created, the other Zones, ZONE2 and a SHARED Zone, can only be created on a PC.

In Location or Tracking mode Zone monitoring is always active. This means that if the PDA or Phone crosses a Zone boundary a Zone Enter/Exit record is created in the Data Base, and an alert is sent to a user defined address. Also, if Tracking is 'Off' (Fig. 3.0), tracking records are created and will display 'tracks' on the Web Tracking Page (Fig. 17.0), but only within the defined Zone. These 'tracks' will use the current polling rate. Remember the polling rate applies to all Tracking, Location Packet, and Zone sending activity.

Zone management and Tracking is accessed from the <http://www.PerDiemCo.com/PDC.htm> web page. Access is password protected. You must be a registered Member to get a Password.

System Architecture



(Fig. 1)

- (1) Satellite data is received by the GPS device.
- (2) The PerDiemCo software decodes and displays the Location information.
- (3) A data location packet from the PDA Phone to the Server.
- (4) The SQL Query is processed and a Map is created on the Server. If an zone violation is included in the Queryt, a notification is emailed to that address. The Map link also includes time, Current Speed, Max Speed, and direction of travel.
- (5) To view the Map requires the phone number plus the appropriate Code. Others PC(3) can also view the response to PC(7) if desired and if they have the Code.
- (6) When a link is requested on the PerDiemCo Web Page or in the email link, the Map showing the location of the PDA Phone (2) will be displayed.

PHONE REQUIREMENTS:

Microsoft(R) Windows Mobile family: Pocket PC, CE.NET, Smartphone or WM 5.

Bluetooth and an Internet Data Service.

You should have Microsoft ActiveSync version 4.0 or later installed.

Download ActiveSync version 4.0 here: <http://www.microsoft.com/downloads>.

GPS ISSUES:

Position accuracy will vary with GPS receiver configuration (internal vs external), location (geographic latitude, it influences HDOP, and surrounding objects possibly blocking reception or causing multi-path reception), satellite constellation status, and ionosphere conditions.

In an urban street bounded by tall buildings, or in a heavily wooded areas, you may get large errors. Accuracy may go to +/- 50 metres, or the GPS may not be able to work at all. This is because some of the satellites are hidden from the GPS. The more satellites in direct view, the better your position fix.

Installation:

1. Use the INSTALLER software to install the Personal Location and Tracking (PLT) software.
2. Remove PDA from cradle.
3. Turn on WiFi or wireless data connection.
4. Connect, or activate the connection between your PDA and GPS.
5. Start PerDiemGPS by tapping the PerDiem icon on the PDA (Fig. 1).
6. On the Main Screen (Fig. 2.0), tap the Config button.
7. On the Config Screen (Fig. 2.1), enter a code (i.e. 1234).
8. On the Config Screen enter your phone number or ID.
9. On the Config Screen enter your Map server Domain Name.
10. Tap the SAVE button to save your config settings.
11. CLOSE the config screen.
12. Tap the GPS button on the Main screen (Fig. 2.0).
13. Tap the GPS Radio Button on the GPS screen.
14. Tap the START button, GPS data should display in data window.
15. Tap the close button to return to the Main Screen.
16. Be sure you are outside and your GPS is 'locked in'.
17. Tap the MAPS button and tap the Map button on the screen.
18. The MAP screen (Fig. 3), should show your current location on a map.

Tap the PerDiemCo Icon to launch the PerDiemCo GPS application.

The GPS receiver should be connected prior to starting PDGPS.

LAUNCH SCREEN



Fig. 1.0



Fig. 2.0



Fig. 2.1 Config. Screen



Fig. 2.2 GPS Screen

Set the CODE (Fig. 2.1) to the desired setting.

REMEMBER!

CODES can be changed at any time.

CODES can be alphanumeric.

CODES control access to your location data.

CODES must be used for all Tracking activity.

Codes are your way of controlling who sees your location data!

When saving Log files (Fig. 2.1) the name entered here will be the name of the Log file. Log files of raw GPS data grow at about 1 MB/hour. These files can be 'played' using the Files button in SETUP (fig. 12.0). Server Domain name is the name of the Map Server for your PDA or Phone.

To initiate real-time tracking select SETUP from the GPS Page (Fig. 2.2). Set the interval for data packets to be sent to the server. Remember that less frequent rates will use less of your wireless data budget.

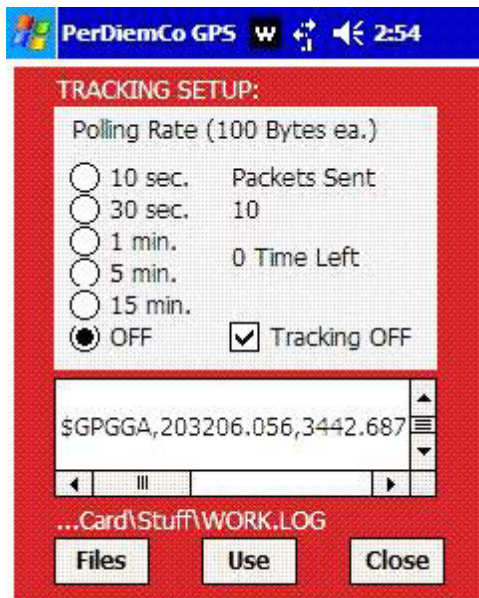


Fig. 3.0

TRACKING:

To minimize data usage & cost select longer intervals for Polling (sending data). A timer selection on the tracking page (Fig. 3.0) sets the time interval for capturing GPS location data and sending it to the server database. The file creates a Map with discrete Time Stamps for each plot point. This tracking map is accessible only with the correct UserID AND Code. When Polling is ON packets are sent to the Server at the selected rate. If Trip is ON then a new record is created on the Server for each packet. There is a limit of 600 Location records on the Server so use caution in setting a Polling rate for the Trip mode. Use the 'Get Codes' option on the MAP/DATA screen (Fig. 14) to manage/delete old records.

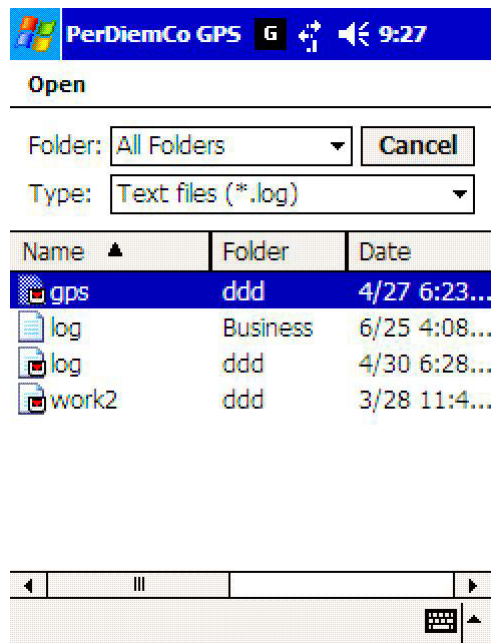
Setting TRACKING ON will save all data into the Server DataBase and provide a 'trail' on a map using the PDC web pages (<http://www.perdiemco.com/PDC.htm>). Time Left (see Fig. 3.0), refers to time till the next Packet Session operation.

The \$GPGGA... in the lower part of the screen is raw GPS data from the selected file. \$GP indicates a valid GPS Log file. This is useful in selecting a file to 'run', since not all log files contain GPS data.

Tracking Simulation:

Select a log file to run in simulation mode. The GPS raw data is displayed to insure that the 'Log' file is really a GPS data file. Tap the file name to select and load. File Types are displayed in upper window, file names are displayed in lower window.

(See fig 3.1 below for Log file selection)



Log file selection Menu

Fig. 3.1

MANUAL (Local) SEND of a Map request:

If the GPS is providing 'live' data a location packet may be sent by tapping the *Send button* (Fig. 2.2) on the GPS Page at any time. The Map request will create a new map on the Map Server and a record in the DB. The Map ID will be the phone number plus the current code.

NOTE:

GPS Grid, Port and Baud settings are best left with defaults for automatic configuration.

PLT requires no on-board maps. You do not need to plan which map file to load for a trip. Using the wireless connection on your PDA phone and the data from your GPS you can view maps whenever your PDA data phone is connected.



Fig. 5.0

All data sent in Map requests comes from this GPS screen.

GPS Settings: Controls the selection of, Baud rate, and Port # for the connection.

Latitude & Longitude: Indicate current location.

HDOP or **Horizontal Dilution of Precision**, is quality of the data, high values are bad!

Speed & Max Speed: Current speed and fastest speed (MPH) during the current interval.

Alt(M): Current altitude in Meters.

Dir.: Direction in degrees. Zero indicates North and 180 indicates South.

Satellite Data: All visible satellites and their ID #'s and signal strength are listed.

BlueT: Button to Start/Stop the blueTooth Wireless Connection.

PDA Maps

A map can be displayed on the PDA if an internet connection is available (Phone data link or 802.11). The map can be scrolled up-down or right-left for viewing.

MAP: TOP BUTTONS:

The MAP button refreshes the image from the Server.

The LOAD button Loads or re-loads a Map.

The TRACK button activates on-screen plotting of GPS data.

The PAUSE button Pauses a data file Plot.

The X button toggles between the Map and the GPS Data screen.



Fig. 6.0

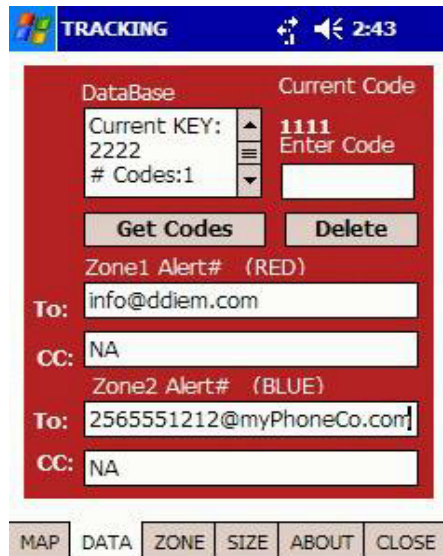


Fig 7.0



Fig 8.0

MAP: BOTTOM BUTTONS:

The MAP Button activates the Map screen (Fig. 6).

The DATA Button opens the Zone and CODE data screen (Fig 7).

The ZONE Button opens the Zone/fence creation utility screen (Fig. 8).

The SIZE Button opens the Map size, Auto center and Zone control screen (Fig. 9).

The About Button Displays information about PLT usage(Fig 10).

Only Zone1 (red) can be created on the PDA. Checking **Share** or **Track** will enable sharing this Zone with others (see below on PC Zone Creation). The To: and CC; boxes on the Data Screen (Fig. 10.1) can be edited and will be saved with the Zone information as notification targets for Zone entry/exit alerts. See Fig. 18.1 for Entry/Exit Tracking. Tapping **Save** on the ZONE screen will save the new Zone as Zone1 and send it to the server for tracking or sharing use.

GetCodes on the Data screen retrieves the number of records, the number of different codes in the records, and your current **KEY** setting, the code should NOT match the displayed value under 'Current Code'. The Current Code is shared with others to make your Location available to them and can be changed to control who can/cannot see your data. **DO NOT SHARE YOUR 'KEY' WITH ANYONE**, it is to be used by you to maintain your Membership information and access to data management.

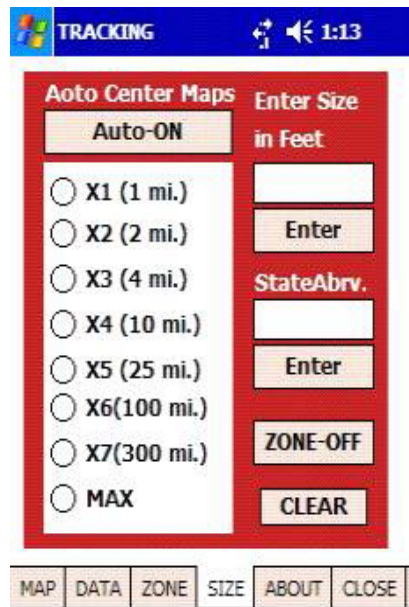


Fig. 9.0



Fig. 10.0

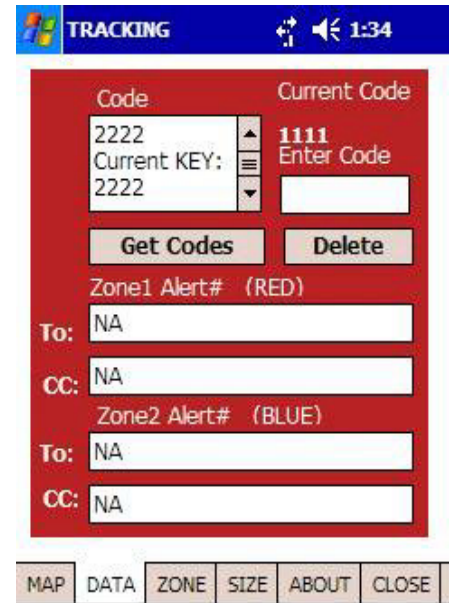


Fig 10.1

GROUPS LIST

The Group List, sometimes called the 'Buddy' list, provides quick access to Maps and Zones via Names and codes stored in this easy to use location.



Fig 11.0

A comma delimited list of Name, Phone Number, Code is created and saved with this screen. Names are added to the list by editing/adding information to the Buddy, Phone Number, and Buddy Key Text Boxes. Tap the Add2List button to save and add to the list. To delete an entry, select the name to delete and tap remove. Selecting a Name for use is accomplished by selecting a name from the drop down list and Tapping the USE! button. This will populate the Buddy Name, Phone Number, and Buddy Key boxes. Tap **Get Zone** to use a Shared Zone created by the 'Buddy' or Tap the GetMap Button to see the last Mapped Location of this 'Buddy'. The CODE values are subject to change by the 'Buddy' (other device) so keep them current. Create a New List if any data changes, save with Add@List and delete the 'old' listing.

The Names Screen:

This screen is similar to the GROUP LIST screen The Names screen (Fig. 11) is used to search your contact list Street addresses and Zip codes. Enter the target last name and tap search. Tap again for multiple last names.

ADD2LIST: will add displayed address to the list box.

REMOVE: will remove displayed address from list box.

USE!: will load and put selected address in the banner at top.

Tap ADDRESS1/2 to toggle which address to add to the list.

GetMap will retrieve the Map, View will display the Map.

Select the Scale for the Map of the Contact location. The Location will be a Yellow Box. This Box will also be visible on the Tracking Map (Fig. xx). The Map will automatically display if GETMAP is invoked. If the Map has already been downloaded the VIEW button can be used to LOAD & View the Map.

The screenshot shows a mobile application interface with a blue header bar containing the word 'contact', signal strength, and time '3:57'. Below the header is a red-bordered search form. At the top of the form, the text 'HyattHotel1,5 Embarcadero' is displayed. Below this is a dropdown menu with the text 'HyattHotel1,5 Embarcadero Cer'. Three buttons are arranged horizontally: 'Add2List', 'Remove', and 'USE!'. Below these are two columns of input fields: 'FirstName' and 'Street' in the first row, and 'LastName' and 'Zip' in the second row. A label 'Find Last Name:' is positioned to the left of a button labeled 'Address 1'. Below this is a 'Search' button. A label 'Map Size (Mi.)' is to the left of a dropdown menu showing 'Width in Miles'. At the bottom of the form, the text 'HyattHotel1,5 Embarcadero Cent' is displayed. Three buttons are arranged horizontally at the very bottom: 'GetMap', 'View', and 'Close'. Below the form is a 'Files' bar with a keyboard icon and an upward arrow.

Fig. 11.1

PICTURE

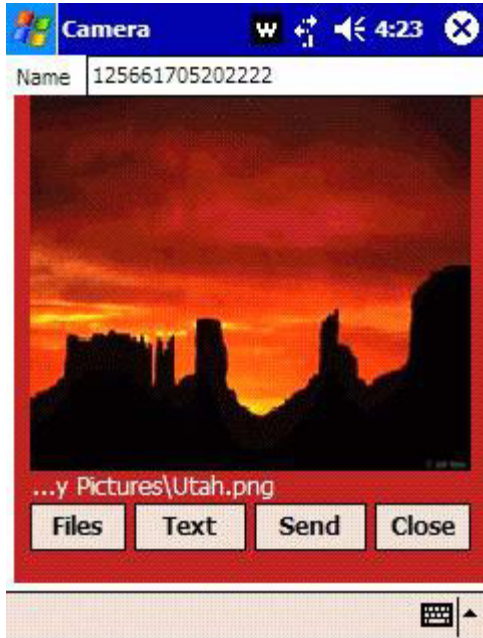


Fig. 12.0

Selecting PICTURE from the Main Menu allows GPS location information to be related to Pictures or Graphics. Images can be selected, Named, text statements 'attached' and the Picture sent to the Location Server. These Pictures may be viewed with the CODE and Phone Number identification on the PerDiemCo Web site. Using the same CODE for a series of Pictures allows the CODE to act as a filter for viewing. Different Pictures can be made available to different individuals via this CODE process. *Remember to give each Picture a unique name, Pictures will be overwritten on the server without warning if the names are the same!*

Pictures with locations too close to each other may not be accessed if the location Icons overlay each other. This capability is meant to show single pictures at a separate locations

Pictures viewed using the PerDiemCo web site will have Icons displayed on a map showing the location of the Picture. Tap on the Icon to see a thumbnail Picture and the Text message sent with the Image. Tap the Thumbnail and see a full sized picture. Right-Click on the picture to save a copy.

(BIG) BUTTONS PANEL

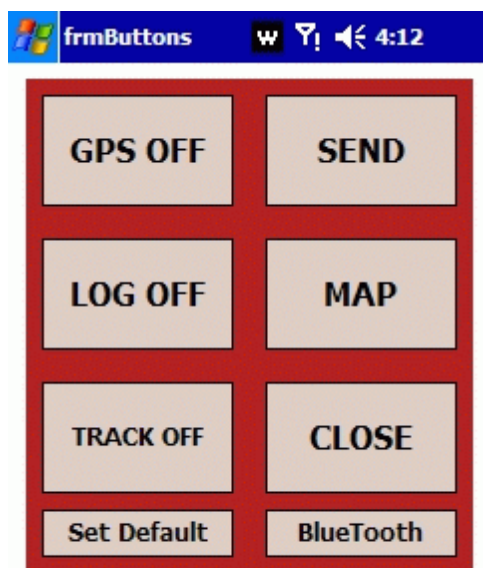
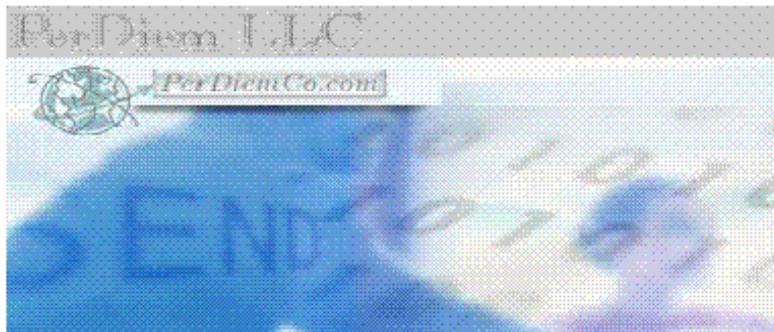


Fig. 14.0

Tap the Big Buttons menu item (Fig. 2) to display the (easy to access while Driving or walking) Control Panel. These buttons provide a BIG, quick & easy set of commands when a quick change in program status is needed or send a position link while underway. Set Device or GPS settings for Polling interval and then use the Set Default button on this screen to save this setting. Whenever the GPS ON/OFF button is tapped, the Device or GPS will start with this Poll rate as the default value. Tap SEND to send the current location immediately. Set Log On/Off to capture raw GPS data in a file for later 'playback'. Tap TRACK (set Trip to ON, see screen below) to enable data records of each location packet for PC based tracking on the PerDiemCo web site. The Device button turns the BlueTooth wireless connection On or Off..

VIEWING PERDIEMCO TRACKING and LOCATION MAPS



PerDiemCo Map Viewer for displaying Maps created with PerDiemCo Tracking Software.

Member links require a user login Code!

Location Map	Location Map
Track Map	Track Map
Photo Map	Photos

MEMBER LogIn	LogIn
Member Map	Groups
Member Zone Tool	Zone Tool
Member Photo Map	Photo Maps
Member Photo Edit	Picture Edit
MEMBER LogOut	LogOut

Fig. 15.0

The Location Map, Track Map and Photo Map all require the CODE used to create the data and the device phone number to access the information.

The 'CODE' entered on the PDA or Device CONFIGURATION page and your device phone number will be needed by anyone you select to view your web position data. See Fig 16 below:

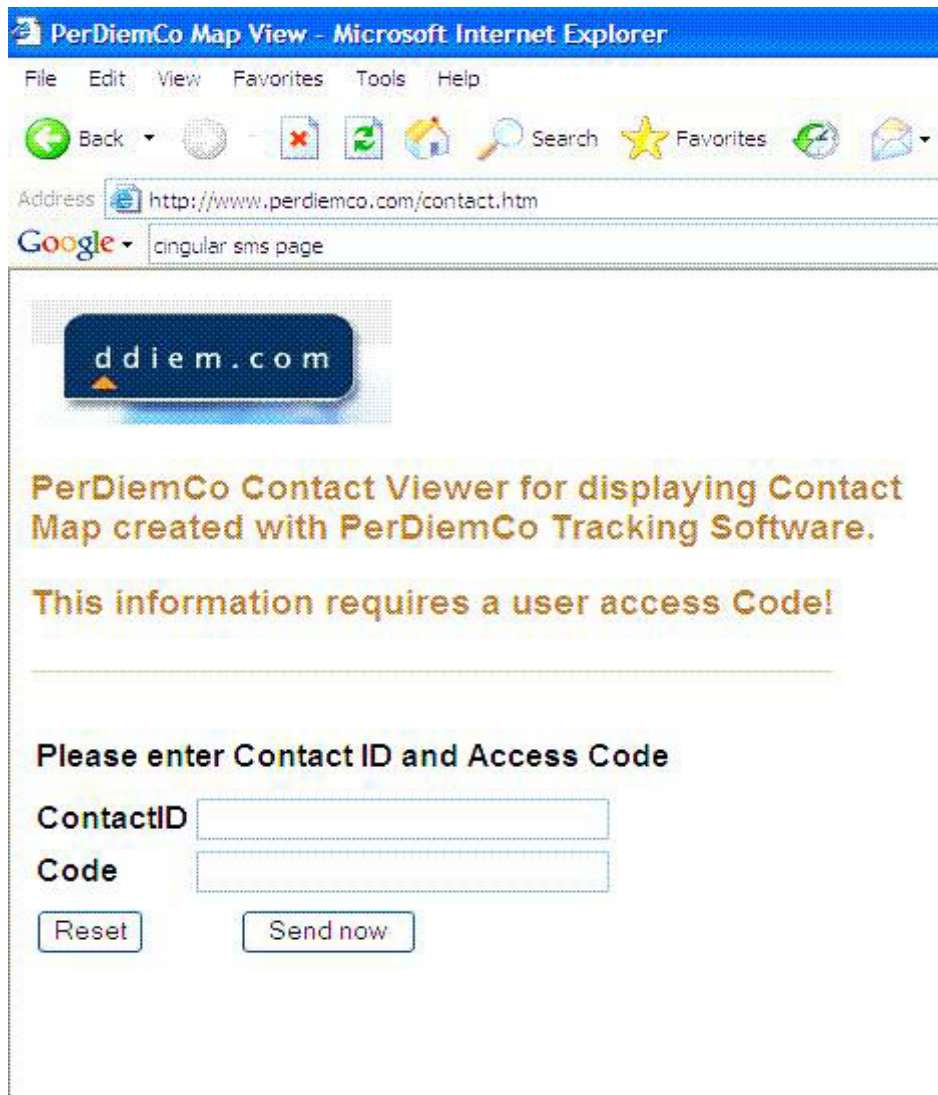


Fig 16.0

You create your own codes, see fig. 2.1. With this feature, only those with the code may inquire as to where you are and view a Map via the Internet. The requester uses your phone number and the Code to access the web site to view your location on a map.

PC Display of GPS Tracking and Zone Data (Above and Below)

[BACK](#)

Code/Group Name and/or Phone#:

size

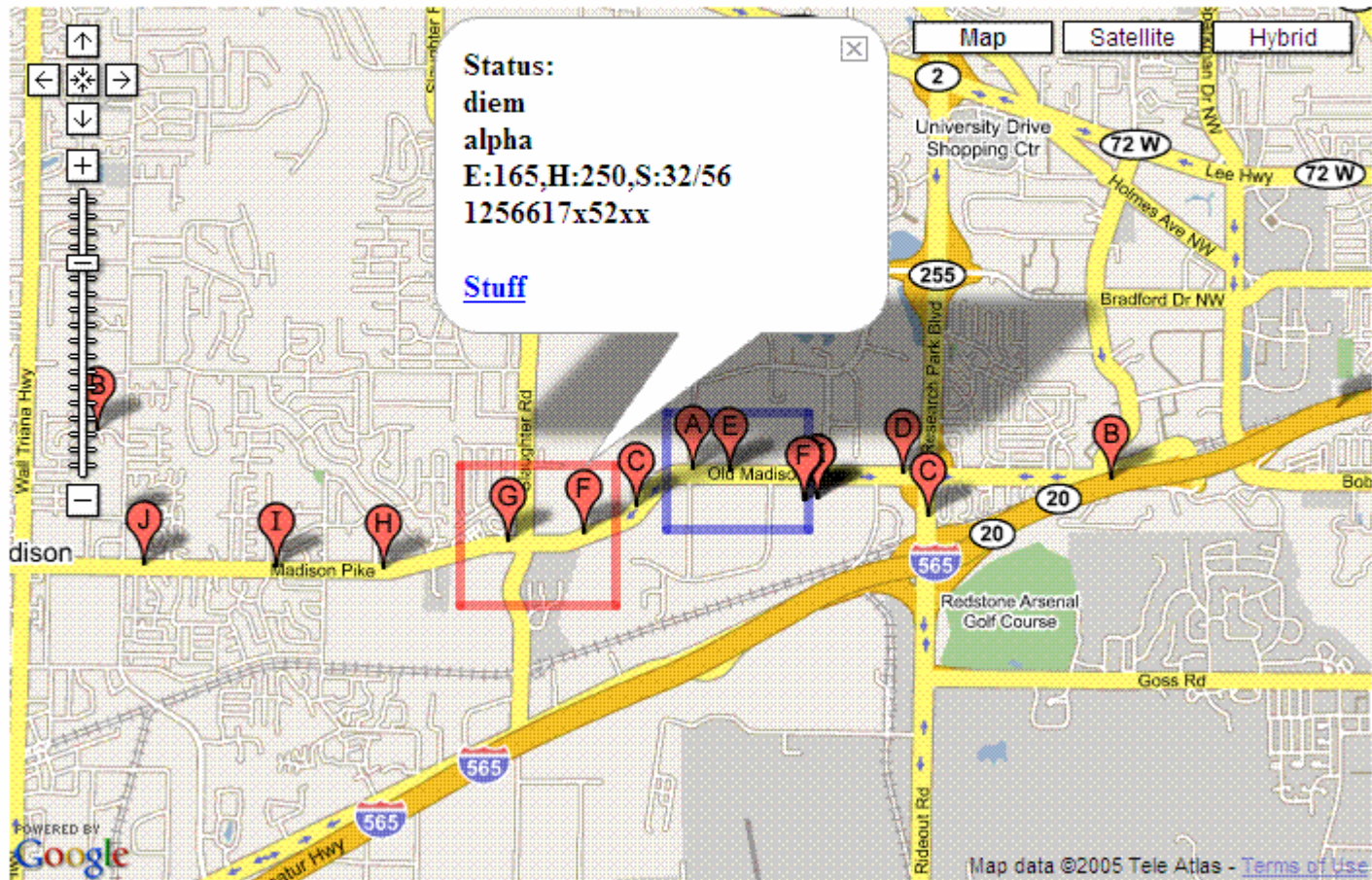


Fig. 17.0

Taping any Position Icon will display Position information for that location.

Identification by name and Group as well as movement data is displayed.

Movement Information:

E: Is Elevation/Height in feet.

H: Is Heading/Direction in Degrees (Zero is North & 180 is South).

S: Is Speed, 1st number is current speed & 2nd is max speed between icons.

Web Link (Stuff) is for user defined connection to associated Pages, if needed.

ZONE CREATION

[BACK](#)

Enter KEY and Target Phone Number: Notify and CC info

0000	12565551212	info@ddiem.com	NA
------	-------------	----------------	----

Zone1 Zone2 Public Track ON

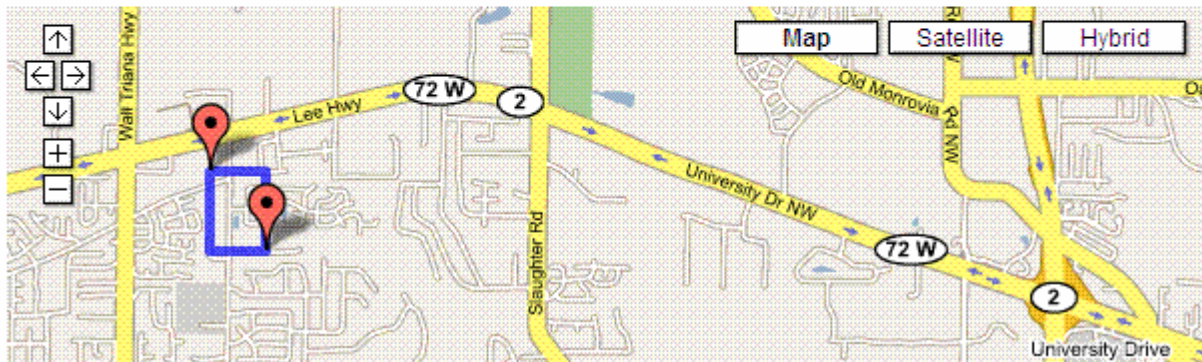


Fig. 18.0

Two Zones can be created. Zone1 will be displayed in Red and Zone2 will be Blue. To create a Zone, tap the screen in the upper left location for a box and then tap for the lower right hand corner of the box. Enter the code provided for the PDA/Phone, enter the Phone number (i.e. 12565551212). Next enter the SMS or email for the notification about Exit/Entry of the Zone. Select either the Zone1 or Zone2 button and tap 'Click'. That's it! The Zone will load on the PDA/Phone the next time GPS is selected on the START Button is tapped. The Zone will display on both the PC Map and the PDA/Phone Map. To share a Zone, select PUBLIC, remember the KEY and Phone Number need to be used by others to retrieve the Zone. Check Track ON to trigger 'real' time' tracking when a Zone is entered. Select CLICK finish and send the settings to the Server. Others can use this CODE and your Phone Number to Load and use this as Zone1 on their PDA or Phone. A shared Zone is useful for mutual tracking projects. If Tracking is 'Off' and Polling On Records will be created when 'in' a Zone see Fig. 18.1 below.

BACK

Code/Group Name and/or Phone#:

size

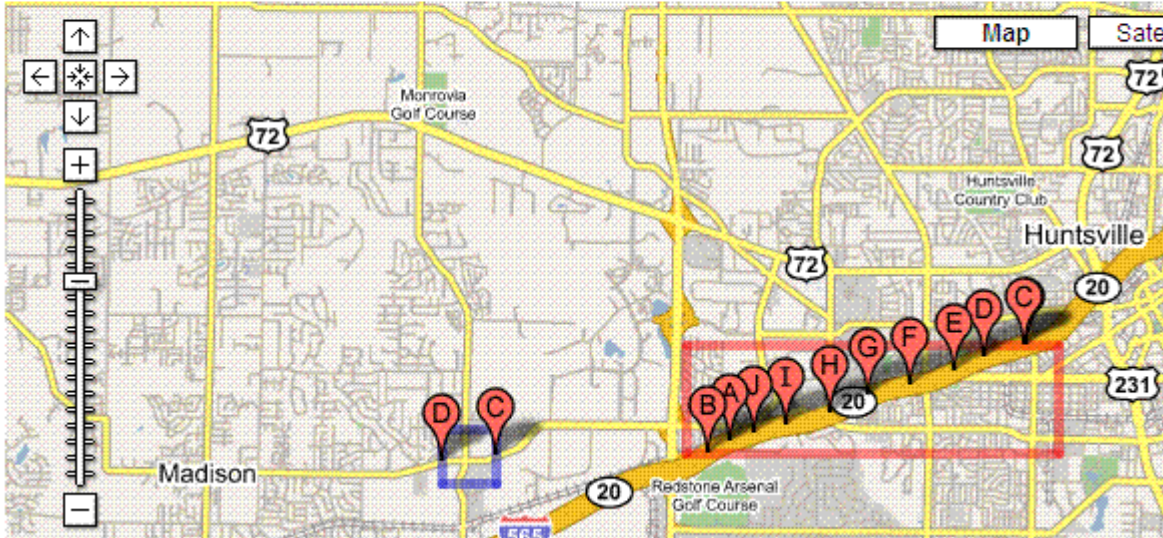


Fig. 18.1

PC PICTURE MAP

[BACK](#)

Enter Group/Phone:

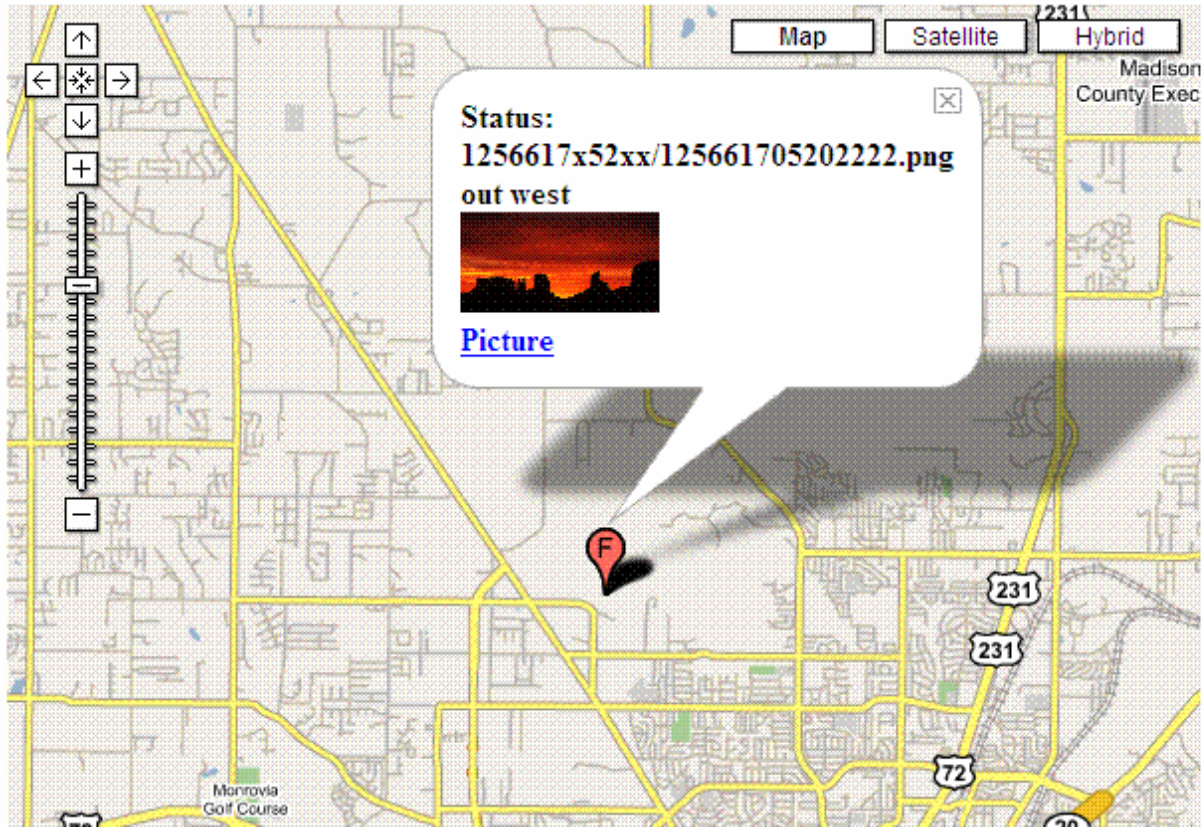


Fig. 19.0

Pictures viewed using the PerDiemCo web site will have Icons displayed on a map showing the location of the Picture. Tap on the Icon to see a thumbnail Picture and the Text message sent with the Image. Tap the Thumbnail and see a full sized picture. Right-Click on the picture to save a copy.

GPS (Bluetooth)

The T Bluetooth connection is set up as follows:

1. With the PDA communications software establish/define a connection (partnership) with the GPS.
2. Start PerDiemGPS and select the CGPS. Screen (Fig. 2).
3. Tap GPS then Tap Start. (Port and Baud settings do not need to be set.)
4. A connection should start and be indicated by the NMEA data string activity at the lower part of the screen (Fig. 6, GPS data).
5. After the initial setup the Bluetooth connection may be started and managed using the Stop/Start or the BlueT buttons on the GPS screen (Fig. 2).

Tracking requires registration with the PerDiemCo service center to set up the database with the user tracking information. Send an email with the following information to:

info@ddiem.com

User name

PDA Phone Number

Phone service Provider (e.g. Cingular, Verizon, etc.)

User e-mail address

Confirmation will be returned and start-up instructions will be emailed when the profile is created.

EXHIBIT D

PerDiem Location and Tracking (PLT)



Contact: info@ddiem.com

Rev 1.1.0

PerDiemCo is a PDA/Phone application for providing Personel Tracking using your GPS receiver data. With the PerDiemCo software on your PDA or Phone you can do the following:

- Show your PDA or Phone's current **location** on a Map.
- Establish geographic **Zones** with entry & exit **notification**.
- Selectively **send** your current **location** as a Map to others.
- **Provide 'coded' web access to your Maps.**
- View **location** and **tracking** on the PDA or on a PC Map.
- Create **Share Zone and location maps** on the PDA and on the map Server.
- Take **photos** & provide **Location** or Map based display.

TYPICAL OPERATION

PerDiemCo Location and Tracking software is typically used in the LOCATION mode. This means that the GPS connection is active and the TIMER is set to periodically send Location Packets. If TRIP is OFF Location Packets will update only the current location record in the Data Base. If TRIP is set to ON, each Location Packet will be saved in an individual record on the Data Base. These records can be displayed as a 'Mapped Track' on the PDA, Phone, or a PC.

If TRACKING is set to TRACK ON, on the PDA or Phone MAP Screen, an updated tracking Map will be wirelessly delivered and displayed on the device. This transaction will use approximately 30K per Map.

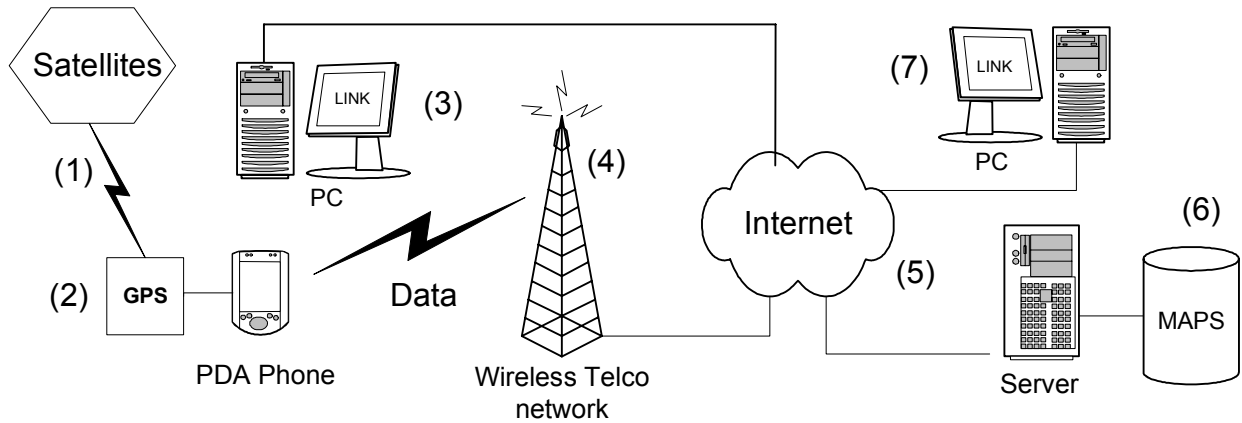
ZONE MANAGEMENT

Zones are geographic boundaries defined by Latitude and Longitude coordinates. If the GPS passes over a 'boundary' an exit or entry alert is issued. A notification is sent to one or more individuals that are defined when the Zone is created. These addresses are displayed on the MAP DATA screen (Fig.). Zones are usually created using the Web Zone Tool on <http://www.PerDiemCo.com/PDC.htm>. Three types of Zones can be created. Two are standard Zones defined as ZONE1 and ZONE2. Zone1 is displayed in Red and Zone2 is displayed in Blue. These are useful for Start and Finish tracking. The third type of Zone is a SHARED zone. A code is used to define this Zone. By sharing the Phone number and Code others can 'load' this Zone into their device and it will respond with alerts to the defined addresses. This is a useful way of providing group tracking and location management. On Devices only the ZONE1 (Red) Zone can be created, the other Zones, ZONE2 and a SHARED Zone, can only be created on a PC.

In Location or Tracking mode Zone monitoring is always active. This means that if the PDA or Phone crosses a Zone boundary a Zone Enter/Exit record is created in the Data Base, and an alert is sent to a user defined address.

Zone management is accessed from the <http://www.PerDiemCo.com/PDC.htm> web page. Access is password protected. You must be a registered Member to get a Password.

System Architecture



(Fig. 1)

- (1) Satellite data is received by the GPS device.
- (2) The PerDiemCo software decodes and displays the Location information.
- (3) A data location packet from the PDA Phone to the Server.
- (4) The SQL Query is processed and a Map is created on the Server. If an zone violation is included in the Query, a notification is emailed to that address. The Map link also includes time, Current Speed, Max Speed, and direction of travel.
- (5) To view the Map requires the phone number plus the appropriate Code. Others PC(3) can also view the response to PC(7) if desired and if they have the Code.
- (6) When a link is requested on the PerDiemCo Web Page or in the email link, the Map showing the location of the PDA Phone (2) will be displayed.

PHONE REQUIREMENTS:

Microsoft(R) Windows Mobile family: Pocket PC, CE.NET, Smartphone or WM 5.
Bluetooth and an Internet Data Service.

You should have Microsoft ActiveSync version 4.0 or later installed.

Download ActiveSync version 4.0 here:

<http://www.microsoft.com/downloads/details.aspx?FamilyID=4c254e3f-79d5-4012-8793-d2d180a42dfa&displaylang=en>

GPS ISSUES:

Position accuracy will vary with GPS receiver configuration (internal vs external), location (geographic latitude, as it influences HDOP, and surrounding objects possibly blocking reception or causing multi-path reception), satellite constellation status, and ionosphere conditions.

In an urban street bounded by tall buildings, or in a heavily timbered forest, you may get large errors. Accuracy may go to +/- 50 metres, or the GPS may not be able to work at all. This is because some of the satellites are hidden from the GPS. The more satellites in direct view, the better your position fix.

Installation:

1. Use the INSTALLER software to install the Personal Location and Tracking (PLT) software.
2. Remove PDA from cradle.
3. Turn on WiFi or wireless data connection.
4. Connect, or activate the connection between your PDA and GPS.
5. Start PerDiemGPS by tapping the PerDiem icon on the PDA (Fig. 1).
6. On the Main Screen (Fig. 2.0), tap the Config button.
7. On the Config Screen (Fig. 2.1), enter a code (i.e. 1234).
8. On the Config Screen enter your phone number.
9. On the Config Screen enter your Map server Domain Name.
10. Tap the SAVE button to save your config settings.
11. CLOSE the config screen.
12. Tap the GPS button on the Main screen (Fig. 2.0).
13. Tap the GPS Radio Button on the GPS screen.
14. Tap the START button, GPS data should display in data window.
15. Tap the close button to return to the Main Screen.
16. Be sure you are outside and your GPS is 'locked in'.
17. Tap the MAPS button and tap the Map button on the screen.
18. The MAP screen (Fig. 3), should show your current location on a map.

Tap the PerDiemCo Icon to launch the PerDiemCo GPS application.
The GPS receiver should be connected prior to starting PDGPS.

LAUNCH SCREEN

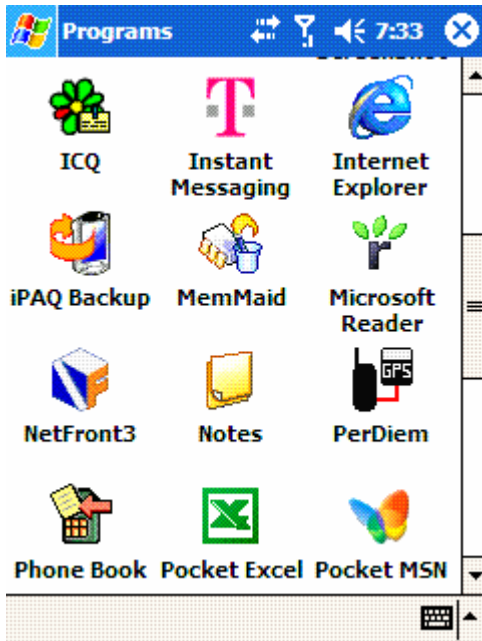


Fig 1.0



Fig. 2.0 Main Screen



Fig. 2.1 Config. Screen

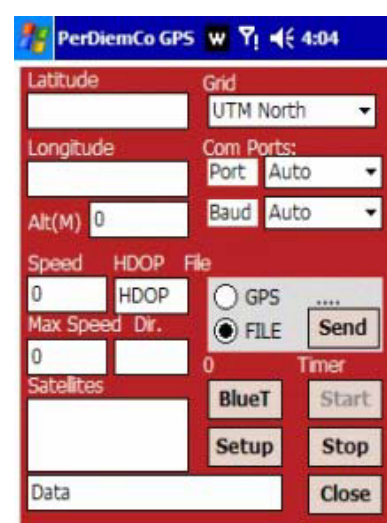


Fig. 2.2 GPS Screen

Set the CODE (Fig. 2.1) to the desired setting.

REMEMBER!

CODES can be changed at any time.

CODES can be alphanumeric.

CODES control access to your location data.

CODES must be used for all Tracking activity.

Codes are your way of controlling who sees your location data!

When saving Log files (Fig. 2.1) the name entered here will be the name of the Log file. Log files of raw GPS data grow at about 1 MB/hour. These files can be 'played' using the Files button in SETUP (fig. 12.0). Server Domain name is the name of the Map Server for your PDA or Phone.

To initiate real-time tracking select SETUP from the GPS Page. Set the interval for data packets to be sent to the server. Remember that less frequent rates will use less of your wireless data budget.

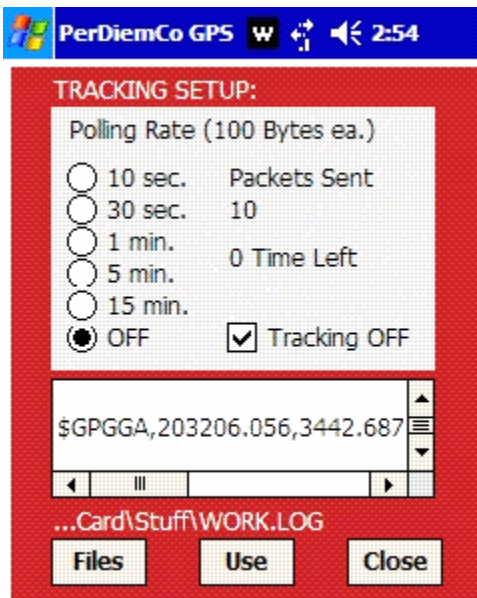


Fig. 3.0

TRACKING:

To minimize data usage & cost select longer intervals for Polling (sending data). A timer selection on the tracking page (Fig. 3.0) sets the time interval for capturing GPS location data and sending it to the server database. The file creates a Map with discrete Time Stamps for each plot point. This tracking map is accessible only with the correct UserID AND Code. When Polling is ON packets are sent to the Server at the selected rate. If Trip is ON then a new record is created on the Server for each packet. There is a limit of 600 Location records on the Server so use caution in setting a Polling rate for the Trip mode. Use the 'Get Codes' option on the MAP/DATA screen (Fig. 14) to manage/delete old records.

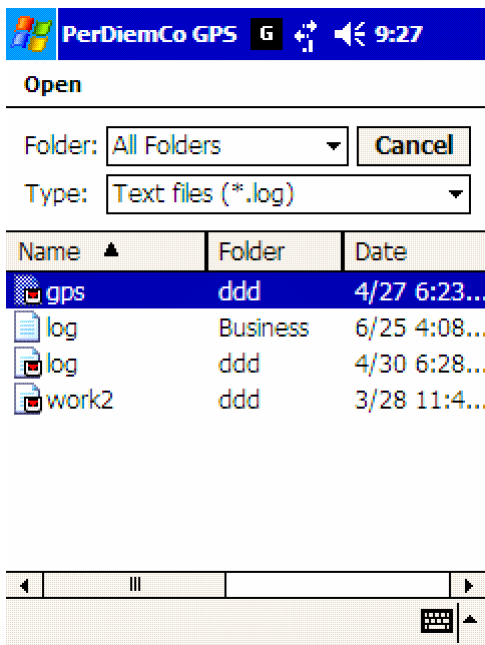
Setting TRACKING ON will save all data into the Server DataBase and provide a 'trail' on a map using the PDC web pages (<http://www.perdiemco.com/PDC.htm>). Time Left (see Fig. 3.0), refers to time till the next Packet Send operation.

The \$GPGGA... in the lower part of the screen is raw GPS data from the selected file. \$GP indicates a valid GPS Log file. This is useful in selecting a file to 'run' , since not all log files contain GPS data.

Tracking Simulation:

Select a log file to run in simulation mode. The GPS raw data is displayed to insure that the 'Log' file is really a GPS data file. Tap the file name to select and load. File Types are displayed in upper window, file names are displayed in lower window.

(See fig 3.1 below for Log file selection)



Log file selection Menu

Fig. 3.1

MANUAL (Local) SEND of a Map request:

If the GPS is providing 'live' data a location packet may be sent by tapping the *Send button* (Fig. 2.2) on the GPS Page at any time. The Map request will create a new map on the Map Server and a record in the DB. The Map ID will be the phone number plus the current code.

NOTE:

GPS Grid, Port and Baud settings are best left with defaults for automatic configuration.

PLT requires no on-board maps. You do not need to plan which map file to load for a trip. Using the wireless connection on your PDA phone and the data from your GPS you can view maps whenever your PDA data phone is connected.

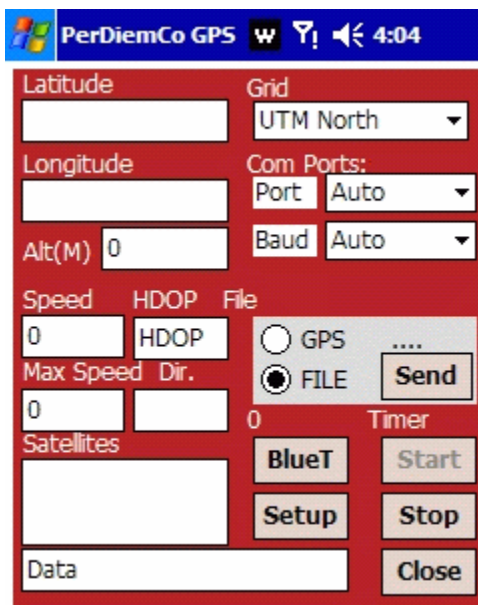


Fig. 5.0

All data sent in Map requests comes from this GPS screen.

GPS Settings: Controls the selection of, Baud rate, and Port # for the connection.

Latitude & Longitude: Indicate current location.

HDOP or **Horizontal Dilution of Precision**, is quality of the data, high values are bad!

Speed & Max Speed: Current speed and fastest speed (MPH) during the current interval.

Alt(M): Current altitude in Meters.

Dir.: Direction in degrees. Zero indicates North and 180 indicates South.

Satellite Data: All visible satellites and their ID #'s and signal strength are listed.

BlueT: Button to Start/Stop the blueTooth Wireless Connection.

PDA Maps

A map can be displayed on the PDA if an internet connection is available (Phone data link or 802.11). The map can be scrolled up-down or right-left for viewing.

MAP: TOP BUTTONS:

The MAP button refreshes the image from the Server.

The LOAD button Loads or re-loads a Map.

The TRACK button activates on-screen plotting of GPS data.

The PAUSE button Pauses a data file Plot.

The X button toggles between the Map and the GPS Data screen.

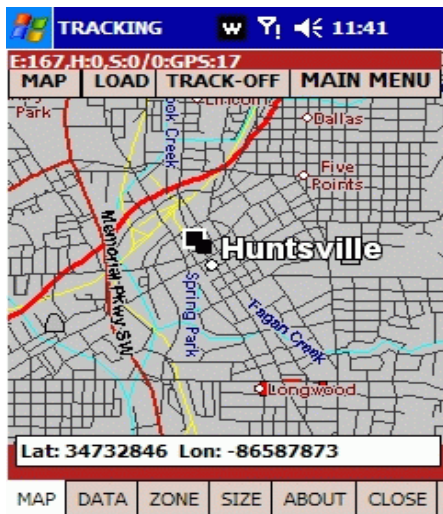


Fig. 6.0



Fig 7.0

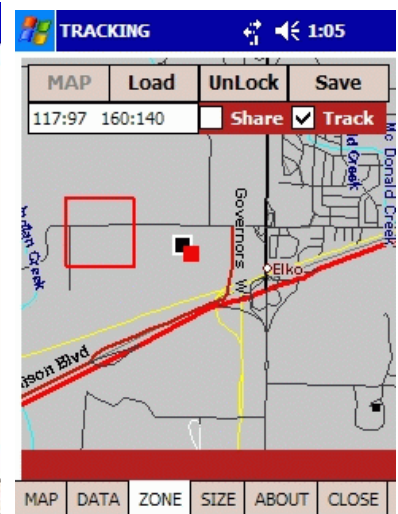


Fig 8.0

MAP: BOTTOM BUTTONS:

The MAP Button activates the Map screen (Fig. 6).

The DATA Button opens the Zone and CODE data screen (Fig 7).

The ZONE Button opens the Zone/fence creation utility screen (Fig. 8).

The SIZE Button opens the Map size, Auto center and Zone control screen (Fig. 9).

The About Button Displays information about PLT usage(Fig 10).

Only Zone1 (red) can be created on the PDA. Checking **Share** or **Track** will enable sharing this Zone with others (see below on PC Zone Creation). The To: and CC; boxes on the Data Screen (Fig. 10.1) can be edited and will be saved with the Zone information as notification targets for Zone entry/exit alerts. Tapping **Save** on the ZONE screen will save the new Zone as Zone1 and send it to the server for tracking or sharing use.

GetCodes on the Data screen retrieves the number of records, the number of different codes in the records, and your current **KEY** setting, the code should NOT match the displayed value under 'Current Code'. The Current Code is shared with others to make your Location available to them and can be changed to control who can/cannot see your data. **DO NOT SHARE YOUR 'KEY' WITH ANYONE**, it is to be used by you to maintain your Membership information and access to data management.

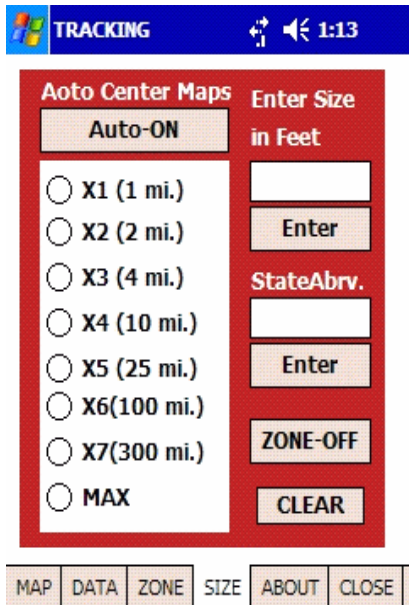


Fig. 9.0

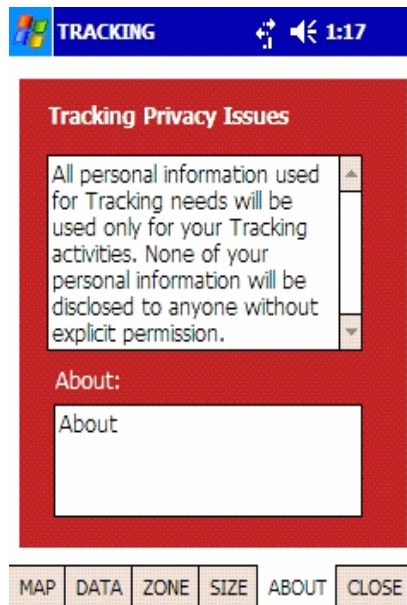
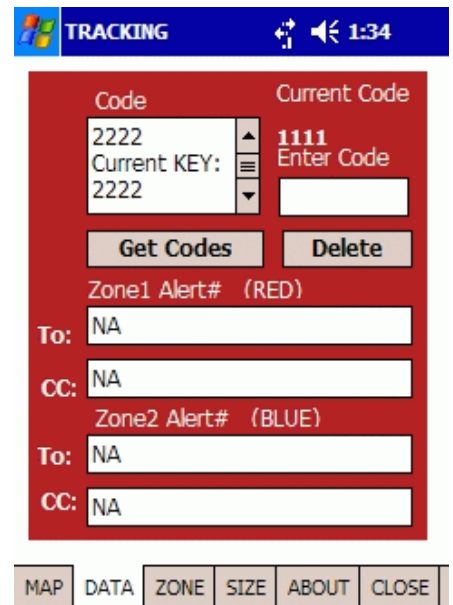


Fig. 10.0



Fog 10.1

GROUPS LIST

The Group List, sometimes called the 'Buddy' list, provides quick access to Maps and Zones via Names and codes stored in this easy to use location.

contact w 4:44

Bob,12564798954,0006

Bob,12564798954,0006

Add2List Remove USE!

Buddy Phone Number

Bob 12564798954

Buddy Key Map Size (Mi.)

0006

Get Zone

Bob,12564798954,0006

GetMap View Close

Files

Fig 11.0

A comma delimited list of Name, Phone Number, Code is created and saved with this screen. Names are added to the list by editing/adding information to the Buddy, Phone Number, and Buddy Key Text Boxes. Tap the Add2List button to save and add to the list. To delete an entry, select the name to delete and tap remove. Selecting a Name for use is accomplished by selecting a name from the drop down list and Tapping the USE! button. This will populate the Buddy Name, Phone Number, and Buddy Key boxes. Tap get Zone to use a Zone created by the 'Buddy' or Tap the GetMap Button to see the last Mapped Location of this 'Buddy'. The CODE values are subject to change by the 'Buddy' so keep them current. Create a New List if any data changes, save with Add@List and delete the 'old' listing.

The Names Screen:

This screen is similar to the GROUP LIST screen The Names screen (Fig. 11) is used to search your contact list for Street addresses and Zip codes. Enter the target last name and tap search. Tap again for multiple last names.

ADD2LIST: will add displayed address to the list box.

REMOVE: will remove displayed address from list box.

USE!: will load and put selected address in the banner at top.

Tap ADDRESS1/2 to toggle which address to add to the list.

GetMap will retrieve the Map, View will display the Map.

Select the Scale for the Map of the Contact location. The Location will be a Yellow Box. This Box will also be visible on the Tracking Map (Fig. xx). The Map will automatically display if GETMAP is invoked. If the Map has already been downloaded the VIEW button can be used to LOAD & View the Map.



Fig. 11.1

PICTURE

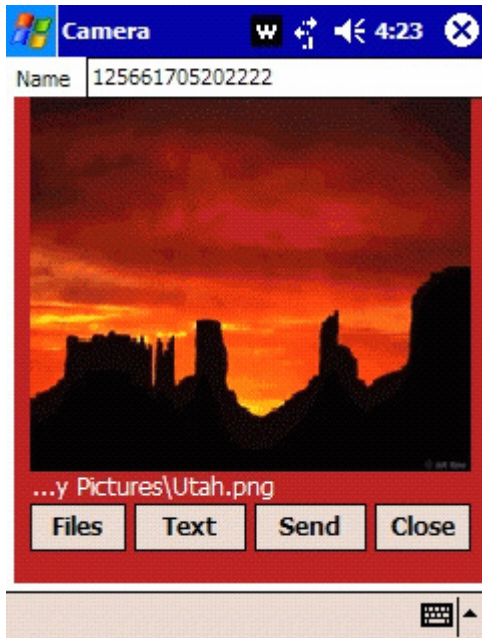


Fig. 12.0

Selecting PICTURE from the Main Menu allows GPS location information to be related to Pictures or Graphics. Images can be selected, Named, text statements 'attached' and the Picture sent to the Location Server. These Pictures may be viewed with the CODE and Phone Number identification on the PerDiemCo Web site. Using the same CODE for a series of Pictures allows the CODE to act as a filter for viewing. Different Pictures can be made available to different individuals via this CODE process. *Remember to give each Picture a unique name, Pictures will be overwritten on the server without warning if the names are the same!*

Pictures viewed using the PerDiemCo web site will have Icons displayed on a map showing the location of the Picture. Tap on the Icon to see a thumbnail Picture and the Text message sent with the Image. Tap the Thumbnail and see a full sized picture. Right-Click on the picture to save a copy.

(BIG) BUTTONS PANEL

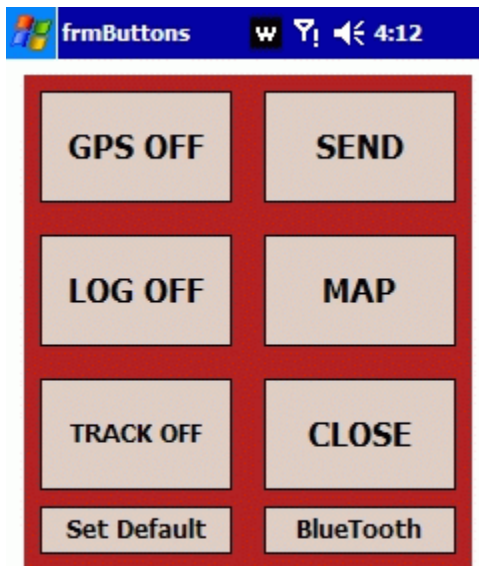


Fig. 14.0

Tap the Big Buttons menu item (Fig. 2) to display the (easy to access while Driving or walking) Control Panel. These buttons provide a BIG, quick & easy set of commands when a quick change in program status is needed or to send a position link while underway. Set Device or GPS settings for Polling interval and then use the Set Default button on this screen to save this setting. Whenever the GPS ON/OFF button is tapped, the Device or GPS will start with this Poll rate as the default value. Tap SEND to send the current location immediately. Set Log On/Off to capture raw GPS data in a file for later 'playback'. Tap TRACK (set Trip to ON, see screen below) to enable data records of each location packet for PC based tracking on the PerDiemCo web site. The Device button turns the BlueTooth wireless connection On or Off..

VIEWING PERDIEMCO TRACKING and LOCATION MAPS



PerDiemCo Map Viewer for displaying Maps created with PerDiemCo Tracking Software.

Member links require a user login Code!

Location Map	Location Map
Track Map	Track Map
Photo Map	Photos

MEMBER LogIn	LogIn
Member Map	Groups
Member Zone Tool	Zone Tool
Member Photo Map	Photo Maps
Member Photo Edit	Picture Edit
MEMBER LogOut	LogOut

Fig. 15.0

The Location Map, Track Map and Photo Map all require the CODE used to create the data and the device phone number to access the information.

The 'CODE' entered on the PDA or Device CONFIGURATION page and your device phone number will be needed by anyone you select to view your web position data. See Fig 13 below:

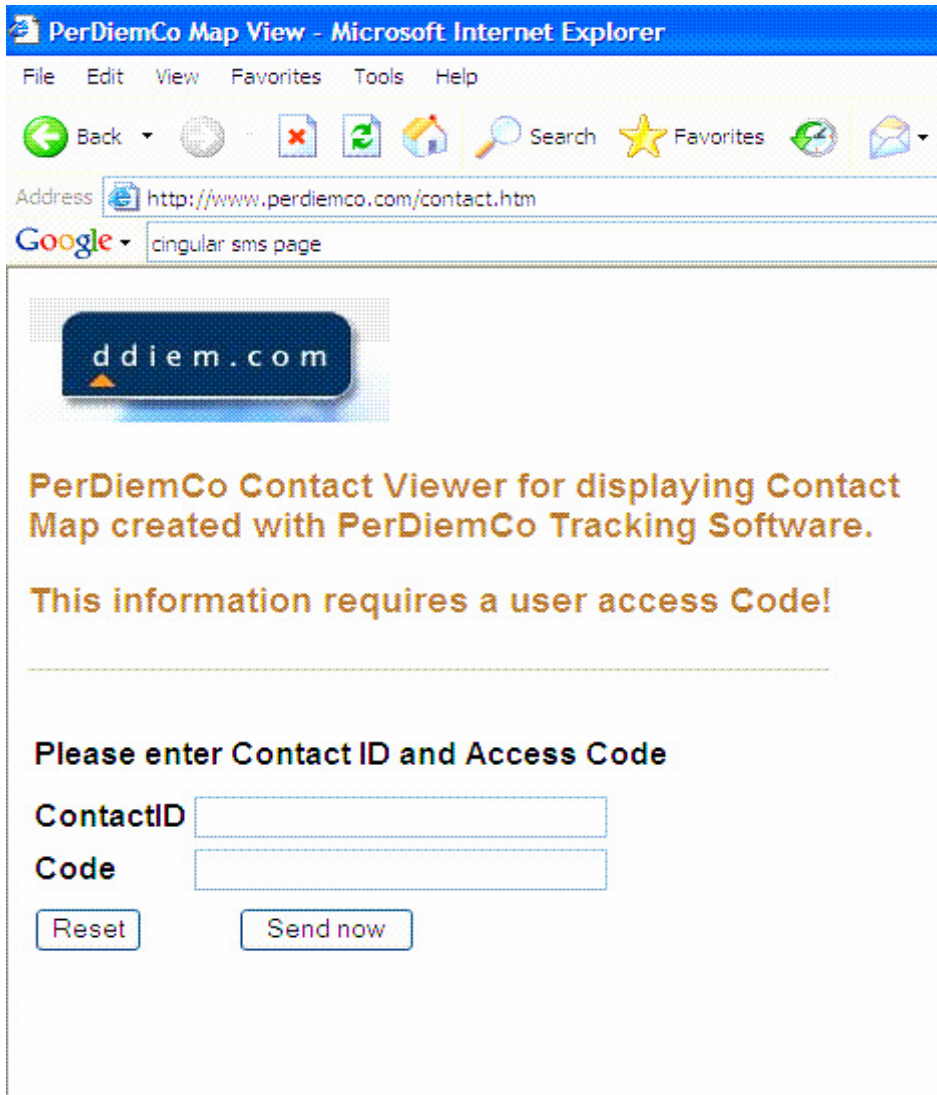


Fig 16.0

You create your own codes, see fig. 2.1. With this feature, only those with the code may inquire as to where you are and view a Map via the Internet. The requester uses your phone number and the Code to access the web site to view your location on a map.

PC Display of GPS Tracking and Zone Data (Above and Below)

[BACK](#)

Code/Group Name and/or Phone#:

		Enter	6	size
--	--	-------	---	------

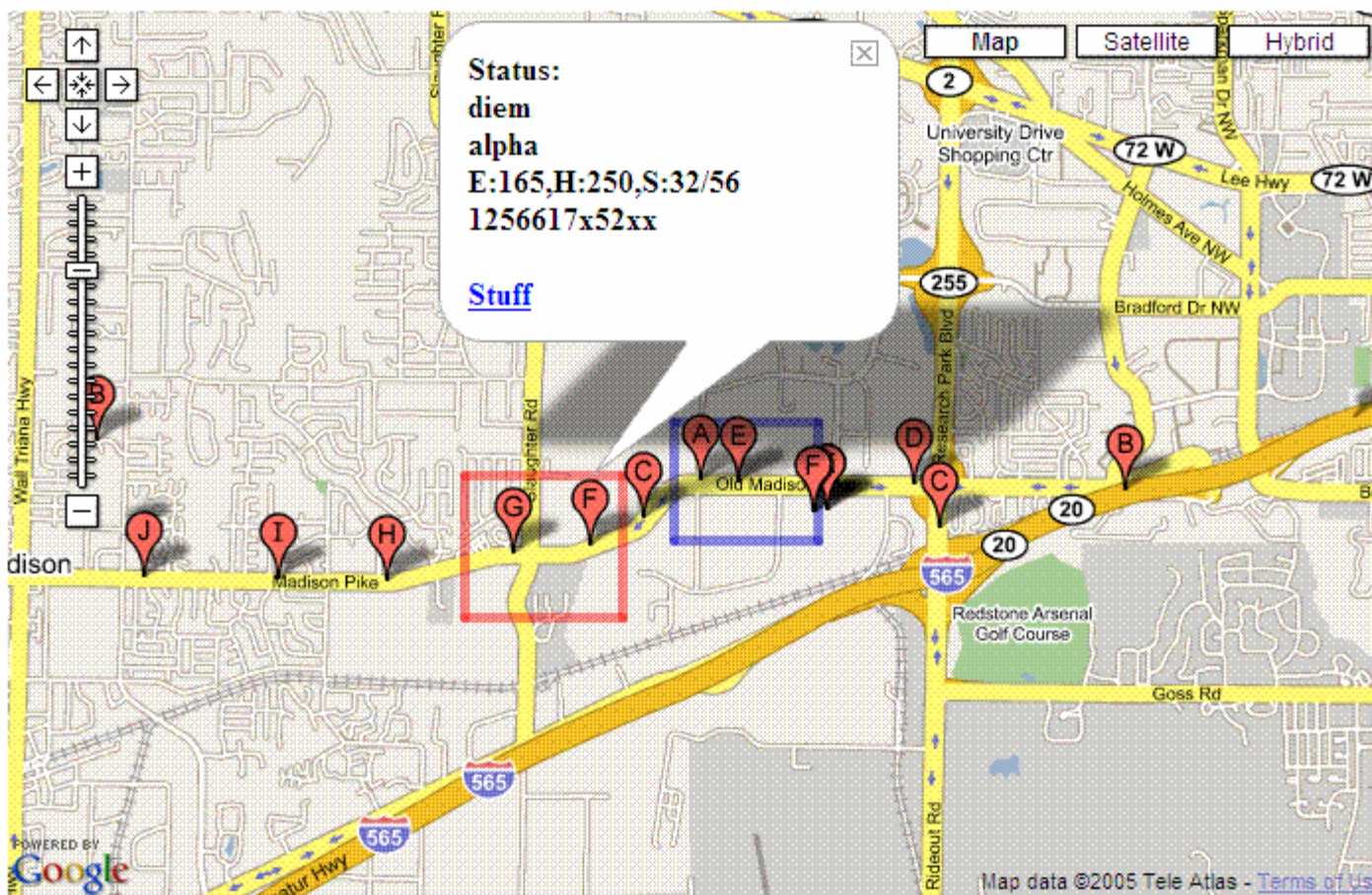


Fig. 17.0

Taping any Position Icon will display Position information for that location. Identification by name and Group as well as movement data is displayed.

Movement Information:

E: Is Elevation/Height in feet.

H: Is Heading/Direction in Degrees (Zero is North & 180 is South).

S: Is Speed, 1st number is current speed & 2nd is max speed between icons.

Web Link (Stuff) is for user defined connection to associated Pages, if needed.

ZONE CREATION

[BACK](#)

Enter KEY and Target Phone Number: Notify and CC info

0000	12565551212	info@ddiem.com	NA
------	-------------	----------------	----

Zone1 Zone2 Public Track ON

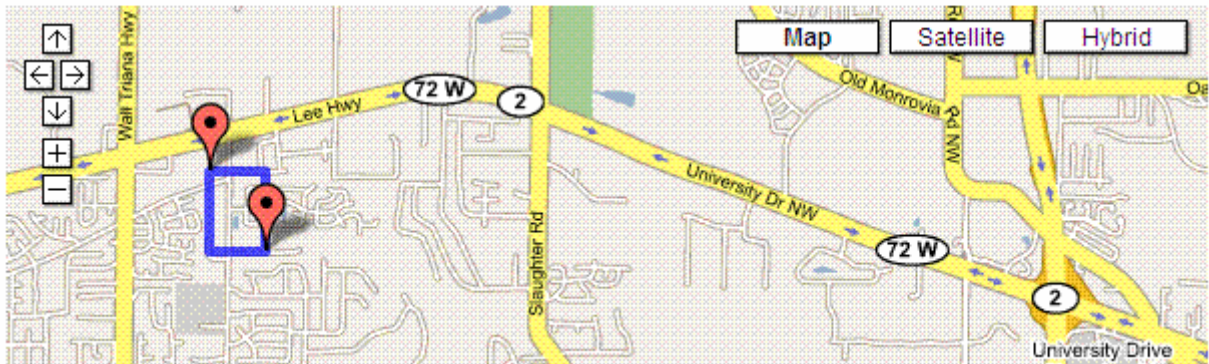


Fig. 18.0

Two Zones can be created. Zone1 will be displayed in Red and Zone2 will be Blue. To create a Zone, tap the screen in the upper left location for a box and then tap for the lower right hand corner of the box. Enter the code provided for the PDA/Phone, enter the Phone number (i.e. 12565551212). Next enter the SMS or email for the notification about Exit/Entry of the Zone. Select either the Zone1 or Zone2 button and tap 'Click'. That's it! The Zone will load on the PDA/Phone the next time GPS is selected on the START Button is taped. The Zone will display on both the PC Map and the PDA/Phone Map. To share a Zone, select PUBLIC, remember the KEY and Phone Number need to be used by others to retrieve the Zone. Check Track ON to trigger 'real' time' tracking when a Zone is entered. Select CLICK finish and send the settings to the Server. Others can use this CODE and your Phone Number to Load and use this as Zone1 on their PDA or Phone. A shared Zone is useful for mutual tracking projects.

PC PICTURE MAP

[BACK](#)

Enter Group/Phone:

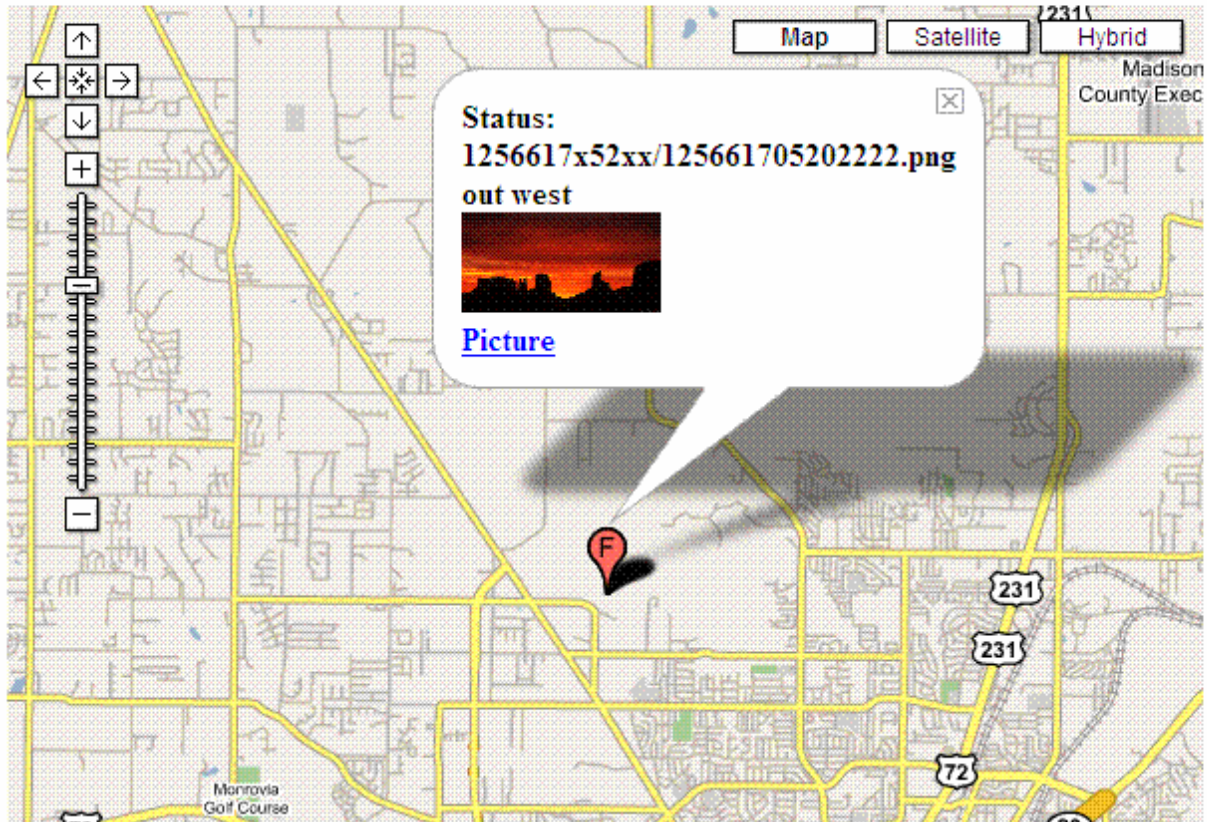


Fig. 19.0

Pictures viewed using the PerDiemCo web site will have Icons displayed on a map showing the location of the Picture. Tap on the Icon to see a thumbnail Picture and the Text message sent with the Image. Tap the Thumbnail and see a full sized picture. Right-Click on the picture to save a copy.

GPS (Bluetooth)

The T Bluetooth connection is set up as follows:

1. With the PDA communications software establish/define a connection (partnership) with the GPS.
2. Start PerDiemGPS and select the CGPS. Screen (Fig. 2).
3. Tap GPS then Tap Start. (Port and Baud settings do not need to be set.)
4. A connection should start and be indicated by the NMEA data string activity at the lower part of the screen (Fig. 6, GPS data).
5. After the initial setup the Bluetooth connection may be started and managed using the Stop/Start or the BlueT buttons on the GPS screen (Fig. 2).

Tracking requires registration with the PerDiemCo service center to set up the database with the user tracking information. Send an email with the following information to:

info@ddiem.com

User name
PDA Phone Number
Phone service Provider (e.g. Cingular, Verizon, etc.)
User e-mail address

Confirmation will be returned and start-up instructions will be emailed when the profile is created.

EXHIBIT E


 Q WHOIS

DOMAINS ▾ HOSTING ▾ WEBSITES ▾ EMAIL ▾ SECURITY ▾ WHOIS ▾ SUPPORT

LOGIN ▾ 0

perdiemco.com registry whois

Updated 2 hours ago - [Refresh](#)

Domain Name: PERDIEMCO.COM
 Registrar: TUCOWS DOMAINS INC.
 Sponsoring Registrar IANA ID: 69
 Whois Server: whois.tucows.com
 Referral URL: http://www.tucowsdomains.com
 Name Server: NS1.HIWAAY.NET
 Name Server: NS2.HIWAAY.NET
 Status: ok https://icann.org/epp#ok
 Updated Date: 08-aug-2015
 Creation Date: 13-may-2005
 Expiration Date: 13-may-2017

perdiemco.com registrar whois

Updated 2 hours ago

Domain Name: PERDIEMCO.COM
 Domain ID: 156948295_DOMAIN_COM-VRSN
 Registrar WHOIS Server: whois.tucows.com
 Registrar URL: http://tucowsdomains.com
 Updated Date: 2015-03-03T15:40:06Z
 Creation Date: 2005-05-13T16:59:19Z
 Registrar Registration Expiration Date: 2017-05-13T16:59:19Z
 Sponsoring Registrar: TUCOWS, INC.
 Sponsoring Registrar IANA ID: 69
 Registrar Abuse Contact Email: donainabuse@tucows.com
 Registrar Abuse Contact Phone: +1.4165350123
 Reseller: HIWAAY Information Services
 Domain Status: ok https://icann.org/epp#ok
 Registry Registrant ID:
 Registrant Name: Darel Diem.com
 Registrant Organization: Darrell Diem
 Registrant Street: 104 Haversham Ln
 Registrant City: Madison
 Registrant State/Province: Alabama
 Registrant Postal Code: 35758
 Registrant Country: US
 Registrant Phone: +1.2566504900
 Registrant Phone Ext:
 Registrant Fax:
 Registrant Fax Ext:
 Registrant Email: darrell@ddiem.com
 Registry Admin ID:
 Admin Name: Darel Diem.com
 Admin Organization: Darrell Diem
 Admin Street: 104 Haversham Ln
 Admin City: Madison
 Admin State/Province: Alabama
 Admin Postal Code: 35758
 Admin Country: US
 Admin Phone: +1.2566504900
 Admin Phone Ext:
 Admin Fax:
 Admin Fax Ext:
 Admin Email: darrell@ddiem.com
 Registry Tech ID:
 Tech Name: Host Master
 Tech Organization: HIWAAY Information Services
 Tech Street: 2227 Drake Ave, Suite 28
 Tech City: Huntsville
 Tech State/Province: AL
 Tech Postal Code: 35805
 Tech Country: US
 Tech Phone: +1.2566504900
 Tech Phone Ext:
 Tech Fax: +1.2566504999
 Tech Fax Ext:
 Tech Email: hostmaster@hiwaay.net
 Name Server: NS1.HIWAAY.NET
 Name Server: NS2.HIWAAY.NET
 DNSSEC: unsigned
 URL of the ICANN WHOIS Data Problem Reporting System: <http://wdprs.internic.net/>
 >>> Last update of WHOIS database: 2015-03-03T15:40:06Z <<<

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