

Human Path Tracer & Logger in Mobile

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ABSTRACT

There are such systems in industry which are used to monitor the real time location of vehicles in Google Map. They all use Global Positioning System. These systems are generally called as GPS tracking system.

Tracking the human position is always been a tedious job. Basically there is no system that can be used to monitor the exact location of human using there mobile. As mobiles are now very common & mostly come with built in GPS receivers; this problem can easily be solved.

I. INTRODUCTION

The basic aim of the system is to develop a low cost solution for GPS based tracking system which can be applied to various domains of the industrial and personal use just by using the very common mean i.e. mobile with GPS enabled.

II. BACKGROUND OVERVIEW

A. Existing System

In current system there is a GPS Receiver along with a GSM Modem installed in the vehicle. This is known as GPS Tracking Unit. This unit is a device that uses the Global Positioning System to determine the precise location of a vehicle or other asset to which it is attached and to record the position of the asset at regular intervals. The recorded location data can be stored within the tracking unit, or it may be transmitted to a central location data base, or internet-connected computer, using a cellular (GPRS), radio, or satellite modem embedded in the unit. This allows the asset's location to be displayed against a map backdrop either in real-time or when analysing the track later, using customized software.

B. Drawbacks of Existing System

The basic disadvantages of the current system are as follows...

- GPS & GSM Modems are costly,
- They can be only used for the vehicle tracking as they are bulky.

C. Proposed System

Since we are implementing the system with the help of mobile; it will eliminate the use of GPS & GSM Modem which is a costly device.

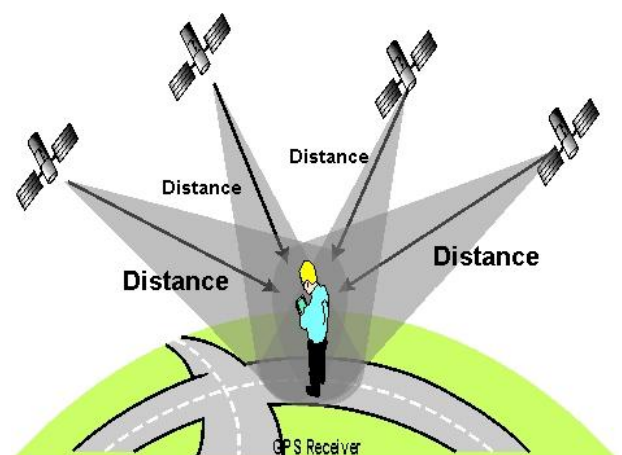
We are going to develop our proposed system in following two different modules:

• Mobile Side Programming

In this we will develop software that we have to install in the mobile of the user whom we want to track in real time on Google map. The job of the software will be to continuously communicate with the built-in GPS Rx of the mobile and get the Latitude & the Longitude of the user. This data will be continuously recorded in the user mobile itself at regular interval along with date and time. This way our system can record the all day travelling path of the mobile user.

• PC Side Programming

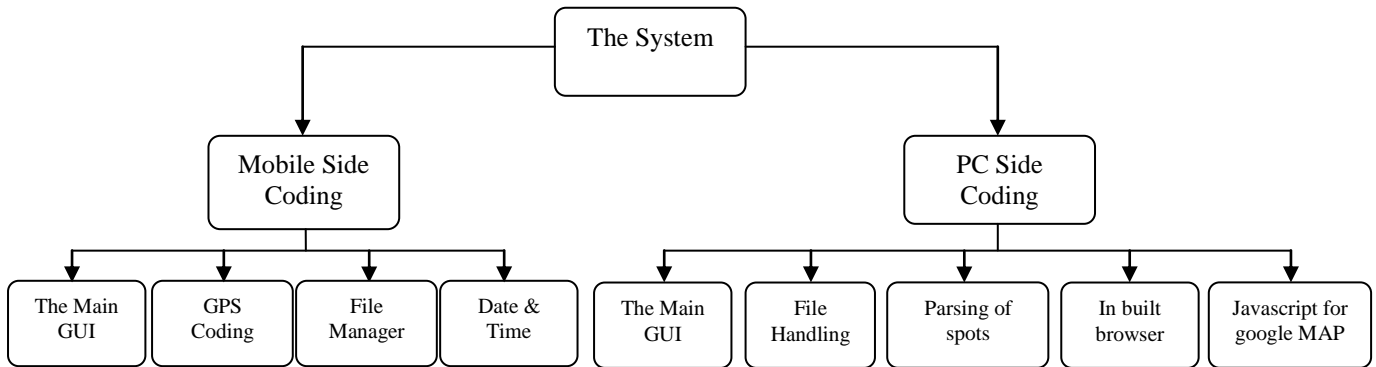
Whenever the admin wants to see the travelling path of the user he/she can connect the mobile to PC and will upload the stored file from the mobile to the hard disk of the PC. Now user will start our software and will pass the file path in it. The software will automatically parse all the information stored in the file. Each spot will be automatically passed into automatic generate the java script. The script will be run by our software in its built in browser space and the Google map will get integrated in the system plotting the complete path of the user.



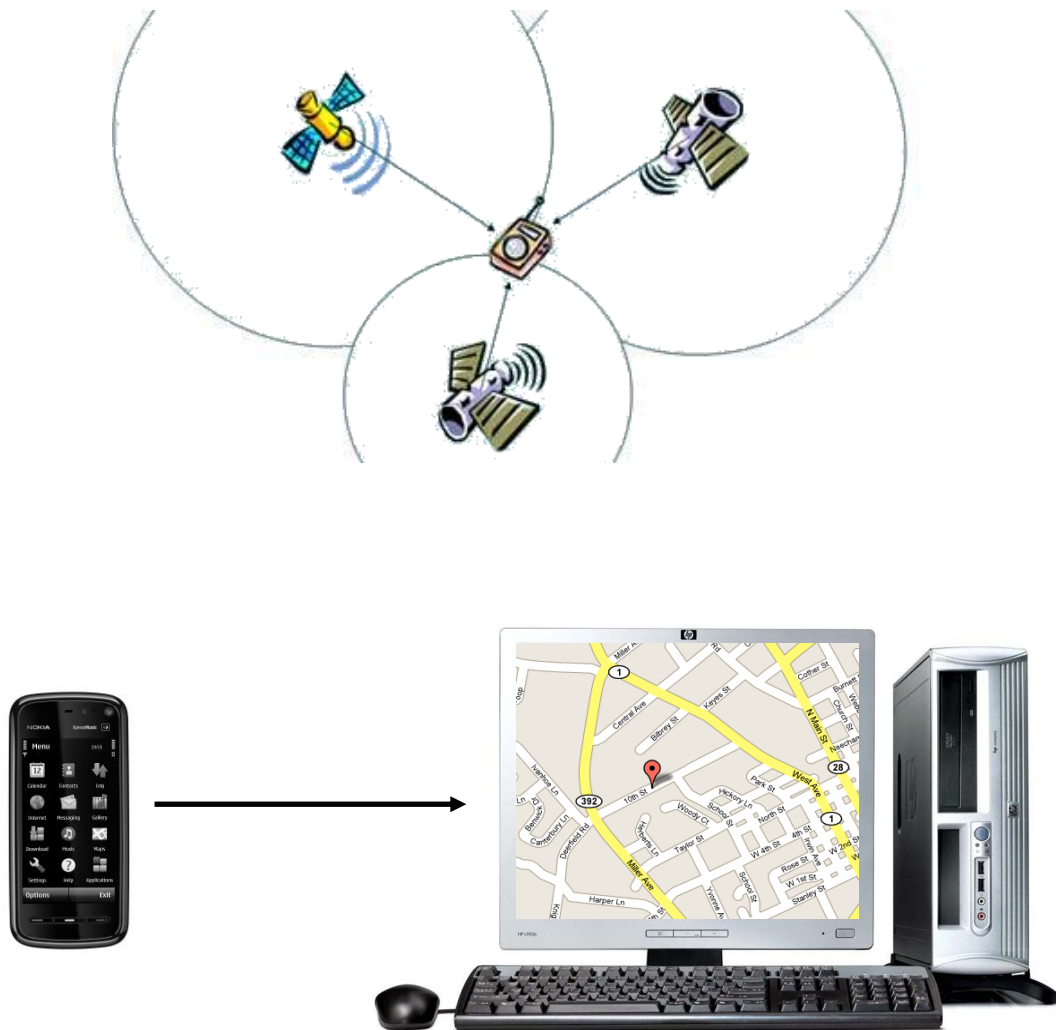
III. THE PROPOSED SYSTEM

A. System Overview

The above proposed system will be divided into the following sub modules or sections...



THE SYSTEM BLOCK DIAGRAM



B. Block Diagram

The Block Diagram of the system is attached behind.

C. Features

The Following are the prominent features of the above discussed system...

- The software can be installed on any java supporting mobile,
- User can be anywhere in the world,
- Google Map integrated in the PC software,
- Interactive user interface on PC,
- Can record & replot the path of user.

D. Technology & Programming Languages

The followings are the various Programming Languages & Technologies that are going to be used in the proposed system...

- VB.net 2008 Based Application Software,
- File Handling,
- GPS Technology for Position Information,
- JavaScript Programming for Integration with Google Map,
- J3ME Based Mobile Programming,
- Use of JSR-179 for Location API.

E. Project Development Methodology or Steps

The following will be development steps so as to achieve the working Prototype Model of the above proposed system...

- Defining the Problem,
- To Learn the J2ME Language for Mobile Programming,
- To Understand the various concept of the GPS,
- To Learn JSR-179 for GPS Programming,
- To Learn VB.net Language for PC side programming,
- To Understand the Google Map integration in real time using internet connection,
- To Understand JavaScript Programming for Web Page Display with the Lat. & Long.
- To Develop The Flowchart for the Mobile side Program
- To Develop The Flowchart for the PC side Program
- To Develop The DFD for the Mobile side Program
- To Develop The DFD for the PC side Program
- To Test the individual Modules of the projects separately,
- To integrate the tested modules with each other for complete project
- Testing and debugging,
- Creation of installation package,
- Installation on PC and Mobile,
- Finally Running the System Testing and Debugging,
- Documentation.

IV. SCOPE & APPLICATIONS

Only the imagination can limit the applications of the above proposed system. By realization of such type of system one can achieve the following goals that had never been achieved till date-

- **For Family Use** - We can use this system to track the real time position for the family members.

Parents can keep eye on the daily routines of their children.

- **For Courier Use** - Courier companies can install this system in the mobile of delivery person that can be traced for his/her travelling path which will lead to minimize the travel expenses.
- **For Pizza Delivery** - The owner can keep track of the delivery boy & also can also assist them to reach their destination in time.
- **For Fleet Management** - there will not be any hardware device installed in the vehicle as the position of the driver can directly be traced by his mobile; reducing the cost of the system.
- In Case of **Theft of mobile** one can locate its current position.
- All other Systems those are applicable for the existing system.

V. CONCLUSION

Thus we are trying to develop a system which will definitely helps to find Human Position. Application will provide high quality and transparent policies that satisfies the application of tracking, the human position. Ultimately it will helps us for monitoring human position by making the guidance for new user, applications for finding exact position, locating the point and controlling activities etc.

By realization of this system we will also learn the software development strategies and various programming techniques for PC & Mobile based applications.

VI. ENHANCEMENTS

A. Limitations

As generally all systems have some limitation, here are some listed for the proposed system...

- The user mobile should not be indoor as GPS signals are weak,
- User position with an accuracy of nearly 50 to 100 meter ,

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