

DATABASE FOR INFORMATION PROCESSING OF GPS USERS' APPARATUS

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ABSTRACT

The goal of this work is the *on-line* collection of information in the database. This database is supported by a real time task of GPS and mainly composed by activated events, which calls the specific collection subroutines.

Keywords: GPS signal simulator, exchange protocol, incoming frames

GPS DATABASE

Nowadays, the manufacturing of satellite systems users' apparatus, by which it is possible to define a location of objects in any point of Earth, is developed very fast.

It is necessary to have special devices and software in aims to verify devices parameters compliance to the information declared by manufacturer.

The receipt of data takes place in a static mode using Re-reference system, but in the static and in dynamic modes using GPS signal simulator STR4500.

The user apparatus of different firms of producers have been involved in an experiment, such as Garmin eTrex, GPS-101, Holux and others.

User apparatus support exchange protocol between the vehicles of navigations NMEA 0183.

Specialized software for user apparatus testing such a program as Visual GPS is necessary. This program transforms data from a receiver in the text file and provides a visualization of experiment results.

The primary processing of the incoming frames is executed with the program, which is written on C++ language. It's task to do the comfortable further information storage and processing in a database.

The free spread databases' control relation system (DBCS) MySQL was chosen as a database for GPS users' apparatus information processing. This is built on user-server technology. The choice of this system is conditioned by a simplicity of it's application, high performance and compatibility with web-applications. This DBCS satisfies presented incoming data storages and processing requirements.

Internet Information Server (IIS) as server for MySQL was used. It works well in the Windows environment.

The database interface is executed by using of the PHP language.