

GPSTIME

GPSTIME communication utility

[Description](#)
[Parameters](#)
[Program logs](#)
[NMEA receiver settings](#)
[Changes and modifications](#)
[Document revisions](#)

Description

The **gpstime.exe** program is used for setting the PC system time according to the time received from the GPS satellite system. The program supports STU-GPS devices (IncOs Žilina) and GPS receivers supporting the NMEA 0183 communication protocol (tested on Garmin GPS 35). The request for synchronization of time difference that is greater than 3600 seconds will be ignored.

Parameters

Command-line parameters:

```
gpstime PortNr [W] [E] [L] [U] [NMEA]
```

Parameter	Meaning
[PortNr]	The serial port number, where the GPS receiver is connected to.
[W]	If the detected time difference is greater than 1 second, there will be performed correction of the system time according to the GPS receiver time.
[E]	Having corrected the system time, the program is to be terminated immediately. If correction is not necessary, the program will be terminated in 30 seconds.
[L]	Daylight saving time correction - adding +1 hour to a time received from the GPS receiver.
[U]	Correction - UTC (Coordinated Universal Time) --> UTC+1 (Central European Time).
[NMEA]	The receiver communicates by means of the NMEA 0183 communication protocol. If the parameter is not defined, there is assumed the communication with a IncOs STU-GPS device.
[Sxxxx]	Allows to change the predefined serial port baud rate. For STU-GPS - the predefined baud rate is 9600 Bauds, for NMEA 0183 protocol based device - the predefined baud rate is 19200 Bauds. Possible values: <ul style="list-style-type: none">• S110• S300• S600• S1200• S2400• S4800• S9600• S14400• S38400• S56000• S57600• S115200• S128000• S256000
LOG_INPUT_DATA	Full listing of communication between <i>gpstime</i> and GPS receiver in case of NMEA protocol.
DO_NOT_CHANG E_SYSTIME	Program executes all activities except for the time correction (unlike the parameter W, when it does not communicate with GPS receiver).

Program logs

In the working directory of the *gpstime* program directory, the file **gpstime.log** is automatically generated. It contains program activity logs:

- program start/stop
- time correction

Each log contains the date and time when occurred.

NMEA receiver settings

When you use receivers supporting the NMEA 0183 communication protocol, the following parameters are required by the gpstime program:

- Baud rate of 19200 (unless there is defined other baud rate using the parameter **Sxxxx**).
- enabled NMEA sequences GGA (Global Positioning System Fix Data) and RMC (Recommended Minimum Specific GPS/TRANSIT Data)

Changes and modifications

- Program version 1.2 - July 24th, 2001 - NMEA 0183 support.

Document revisions

- Ver. 1.0 – July 24th 2001 – document creation.



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