

Commands for GPS/GLONASS-receiver configuration



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Use this command to handle the GPS/GLONASS-receiver.

Syntax:

`#1> gps [options] [command]`

Options:

```
-t=<level> - turn trace level (1, 2 or 0 - turn trace off)
-a[=(0:1)] - turn the power on the antenna amplifier
-p=<port> - set TCP port for service (2323 by default)
-s=<baudrate|0> - set baud rate for GPS NMEA port (0 - set 115200)
-c=<con_mask> - set current constellation:
    1 - GPS
    2 - GLONASS
    3 - GPS+GLONASS
```

Command:

```
start - start GPS service
stop - stop GPS service
coordinates - show GPS coordinates
console - map GPS NMEA port to stdin/stdout
tcp - map GPS NMEA port to TCP service
stat - show GPS statistics
clear - clear GPS statistics
```

Options

Option	Description
<code>-t=<level></code>	Configure event logging <ul style="list-style-type: none"> "2" - to log all the NMEA-messages from the GPS/GLONASS-receiver "1" - to log only the messages about discovering / loss of the GPS/GLONASS-receiver, about the changing of the quantity of detected satellites or about substantial changes of coordinates, etc. "0" - event logging is off
<code>-a[=(0:1)]</code>	Enables / disables the power supply to the antenna amplifier (if one is available): <ul style="list-style-type: none"> "1" - to enable the power supply (is used by default, if the value is not specified) "0" - to disable the power supply
<code>-p=<port></code>	Sets the TCP port for receiving debugging information. 2323 is set by default.
<code>-s=<baudrate 0></code>	Sets the baud rate of the GPS NMEA port. <ul style="list-style-type: none"> "baudrate" - the rate value. "0" - sets the value to 115200.
<code>-c=<con_mask></code>	Satellite navigation system selection: <ul style="list-style-type: none"> "1" - GPS "2" - GLONASS "3" - GPS+GLONASS

Table - Command "gps" options

Commands

Command	Description
<i>start</i>	Start the GPS service operation
<i>stop</i>	Stop the GPS service operation

coordinates

View information about the GPS/GLONASS-receiver status and its operation statistics

Command output example,

```
#1> gps coordinates
Satellites: 8
LAT/LONG: 56.811911/60.547041
Altitude: 275.89
HDOP: 0.92
FIX: 3D, GLONASS
Total GPS time: 17:43:19
Total nonvalid time: 00:00:01(0%)
Number of losses: 0
Now coordinates are valid last 17:43:18
Satellites histogram:
  ^
  |
2.0 +
  |
3.0 +
  |
4.0 +
  |
5.0 +
  | <1%
6.0 +
  | 1%
7.0 +
      ||| 99%
  v
SATmin= 5 SATmax= 10
```

- "Satellites" - quantity of currently visible satellites
- "LAT/LONG" - geographical coordinates of the receiver in degrees:
 - "LAT" - latitude from -90.0000000° to +90.0000000°
 - "LONG" (longitude) - longitude from -180.0000000° to +180.00000°
- "Altitude" - altitude in meters
- "HDOP" - horizontal dilution of precision

 **CAUTION**

It is recommended to use values of "HDOP" parameter up to 1.5 for reliable global timing synchronization.

- FIX - NO FIX|2D|3D, <unknown>|GPS|GLONASS|GPS+GLONASS – the current position-fix status in the following view: <current fix mode>, <system>. The following values of <current fix mode> are available:
 - "NO FIX" - coordinates are not fixed
 - "2D" – only latitude and longitude are fixed
 - "3D" – latitude, longitude and altitude are fixed.

The following values of <system> (currently used GNSS) are available:

- GPS
- GLONASS
- GPS+GLONASS.

The next block of information is the statistics (to obtain these data without information about status of GPS/GLONASS-receiver you can use "gps stat" command instead).

- "Total GPS time" — total time of GPS utility operation since it was started by "gps start" command
- "Total nonvalid time" – total time during which the information about coordinates was unavailable
- "Number of losses" — quantity of cases when the information about coordinates had become unavailable
- "Now coordinates are valid last ..." - time of GPS utility operation since last coordinates discovering
- "Satellites histogram" - the histogram of visible satellites quantity
- "SATmin" и "SATmax" — minimum and maximum of visible satellites respectively (since the last time you cleared the statistics)

<i>console</i>	Displays an information in GPS NMEA format, is used for debugging. The GPS/GLONASS-receiver should be stopped
<i>tcp</i>	An information in the GPS NMEA format is transmitted to the TCP port assigned earlier by the "-p" parameter. The GPS/GLONASS-receiver should be stopped
<i>stat</i>	View GPS/GLONASS-receiver operation statistics(without the status information)
<i>clear</i>	Reset the statistics data

Table - "gps" command arguments



CAUTION

Please note, that "*tcp*" and "*console*" commands and "-p" and "-s" options are used for diagnostics and debugging on emergency by specialists only.