Using CAN scanner in terminals UMKa302

Technical support GLONASSSoft:

Request on the website: http://help.glonasssoft.ru,
E-Mail: support@glonasssoft.ru
Call: 8-800-700-82-21

Parameters for registration in Wialon:

1 Identifier: – IMEI 0000000000000000 (SAMPLE)
2 IP address of the server: 176.9.36.169
3 Port: 15050 UMKa302

Parameters for registration in Wialon:

1 Identifier: IMEI 0000000000000000 (SAMPLE)
2 IP address of the server: 193.193.165.165
3 Port: 21946 UMKa302

Main information

For transmitting the standard set of parameters (rotational rate, fuel level, etc.) of a vehicle onto the server, it is enough for a user to receive files from the settings of CAN filters from the manufacturers of terminals and apply them. However, sometimes a user needs more than the given list of parameters. Also it does not always work out to determine neccessary parameter from the operation of loggs on CANBUS. In these cases the user is able to search parameters himself. Everything that is needed for it is connecting CANBUS to the terminal and performing some actions to change the sought parameter by starting CAN scanner (e.g. to fill and defuel 10 litres of fuel from the tank for searching the level of fuel).

Connection to CANBUS

Find CANBUS of a vehicle according to the PDF files sent by technical support. Perform the connection to CANBUS either via wireless reader or directly as in illustration 1.

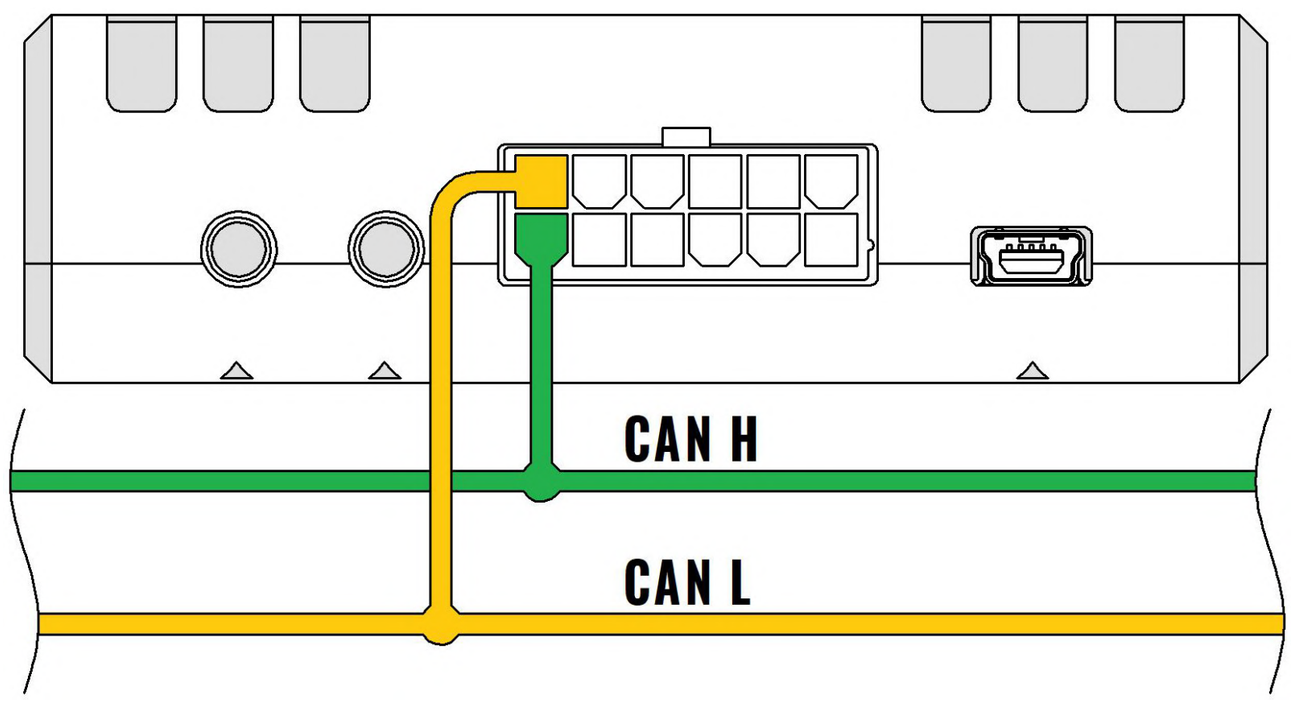

Illustration 1 The connection of terminal to CANBUS

Notice! While working with wireless reader make sure that the reader of the terminal has a common point of connection to power supply. In addition get familiar with the instruction for connection of the reader.

Settings

After physical connection of the terminal to CANBUS it is necessary to make the settings of terminal's interface. In order to do it connect terminal to PC, start configurator and in the «Interface» tab determine the operation speed of CANBUS. By pressing the «Define» button choose any operation mode with CAN filter. Active mode is not needed. After that inscribe all settings into the terminal.

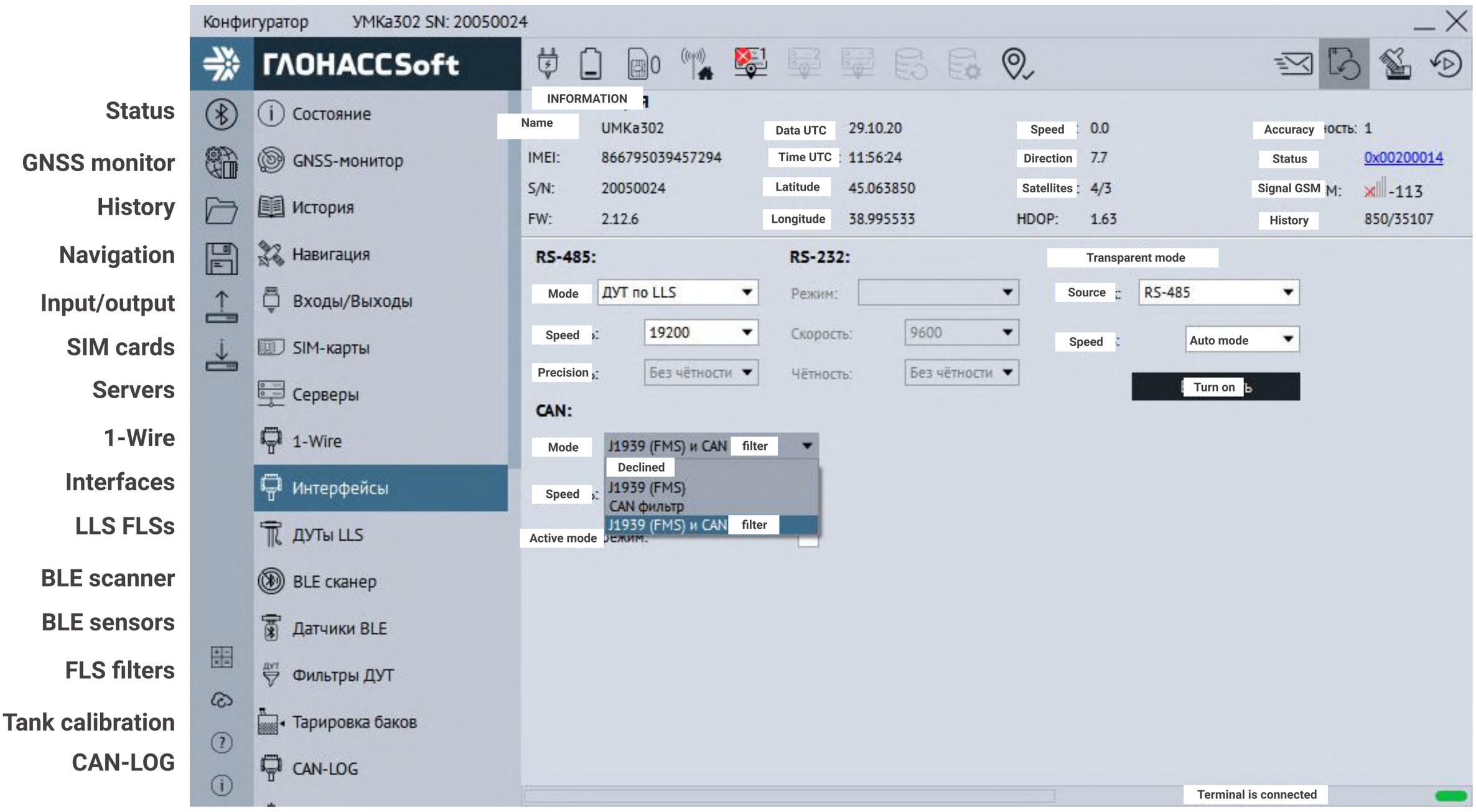

Illustration 2 - Tab «Interface»

Description of scanner

For searching neccessary parameters go to «CAN scanner» tab and press «Launch the poll» button. The chart of unique messages will start to fill in (Illustration 3)

Notice! All operations regarding the search of parameters must be undertaken with the working engine only!

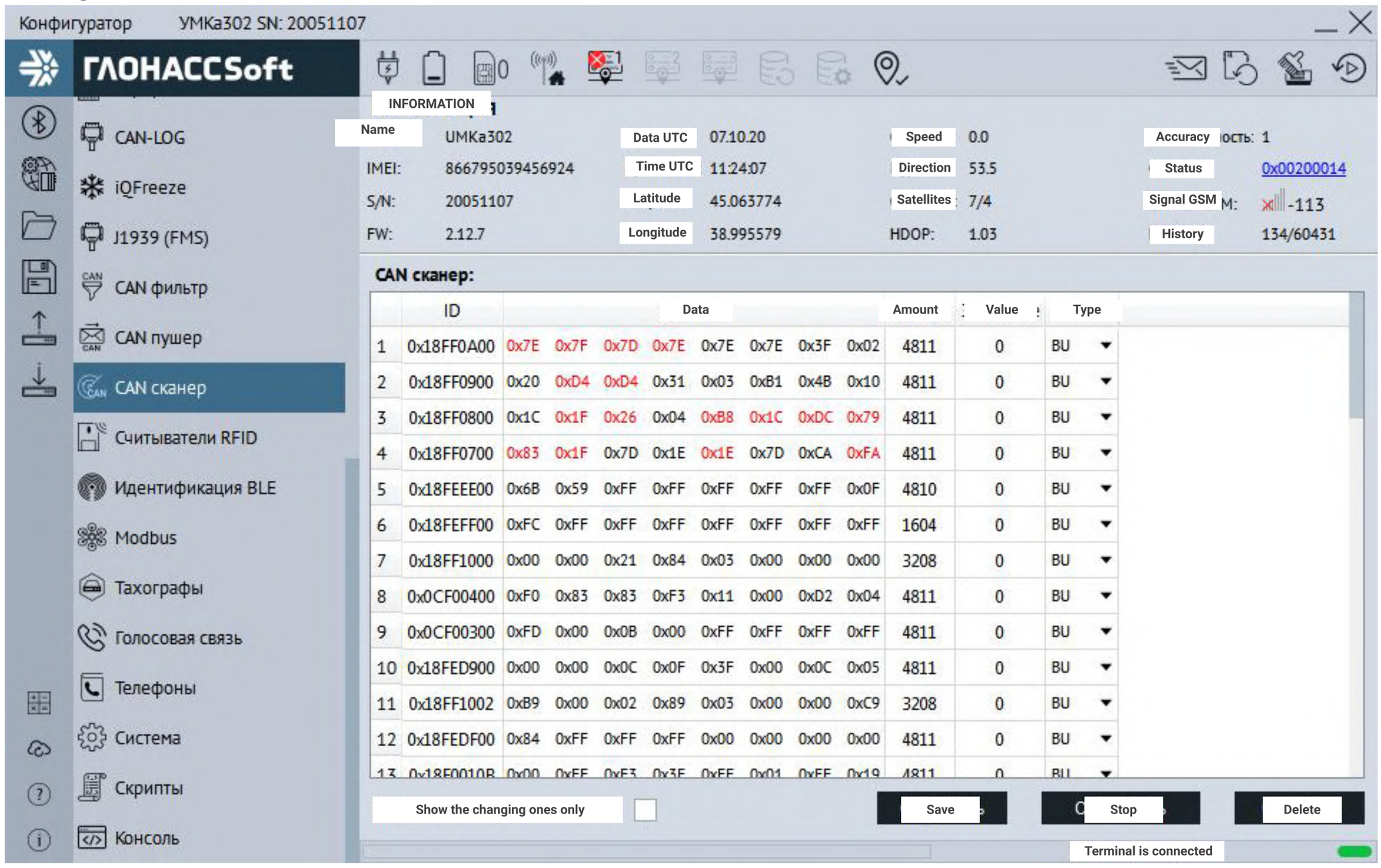

Illustration 3 - Tab «CAN scanner»

The chart has the following collumns

ID - a unique message identifier
Data - message data
Amount - the amount of received packets with current ID since the moment of scanning start
Value - resultant value of the chosen data
Type - type of displayed data, there are 4 types:
BU - Big endian Unsigned - forward with lead byte, unsigned integer;
BS - Big endian Signed - forward with lead byte, signed integer;
LU - Little endian Unsigned -forward with lower byte, unsigned integer;
LS - Little endian Signed - forward with lower byte, signed integer

As it is seen in illustration 3 some data is coloured red. It means the change of data in this message in relation to previous message. With the help of such colouring it is simple to search changing (dynamic) data, e.g. rotational rate of the vehicle.

By choosing data bytes in messages with left press on the mouse it is possible to see their current total value in the «Value» tab. The mode of field display «Value» in the «Type» colomn can be changed conveniently.

The tick «Display the changing ones only» allows to filter all unchanging (less informative) messages. While undertaking physical actions with any parameter of a vehicle (e.g. engine start of combine header) the message data corresponding to this episode will be changed, and the message will automatically appear in the list.

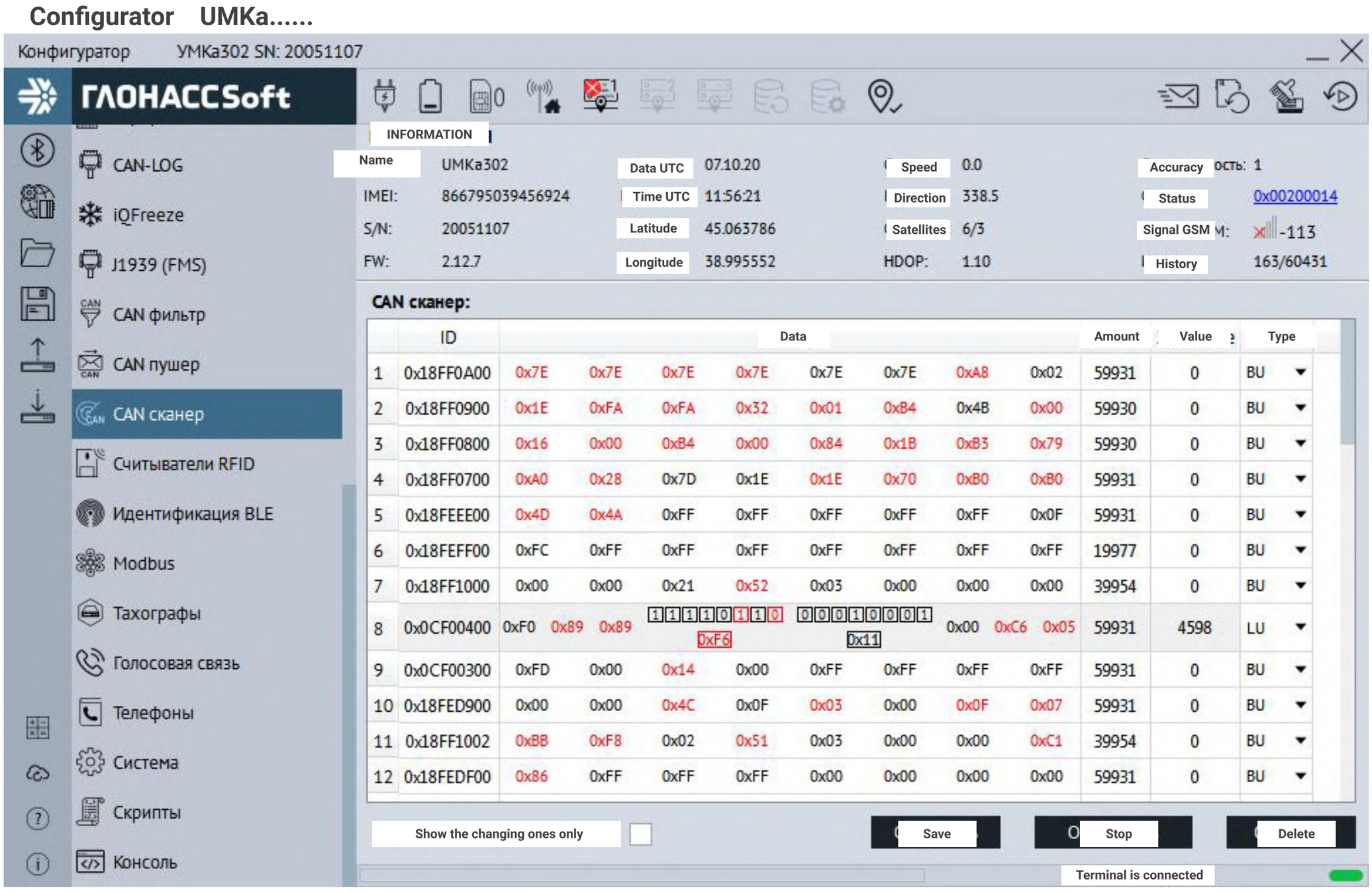

Illustration 4 - Choice of data and display type

For the search of any parameter it is necessary to physically change its value (e.g. to refuel/defuel the petrol for searching the level of fuel or turn on/off the mechanism for searching the start signal) and monitor changes in the chart of CAN scanner.

In case there is too much changing data and it is getting more difficult to find the needed parameter, it is possible to save («Save» button) two dumps before changing the needed parameter and two afterwards. Then make a comparison and search of changed data with the help of specialised programs (e.g. WinMerge, Excel, etc.). The idea of the algorithm is in deleting the changed data in one pair at first and then in the second pair of dumps. Next the search of difference between two deleted files is performed (before and after the physical parameter change).

Pay attention to the fact that there can be no sought parameter in CAN. It is possible when either the parameter value is inscribed into Electronic Control Unit or the dashboard of the vehicle with separate wire (e.g. fuel level with the wire from tank into dashboard) or the parameter is provided on active request. In case of a separate wire the signals of such parameters are inscribed into analog/digital inputs of the terminal. In relation to active request the loggs of exchange rate via CANBUS are removed while working with specialised diagnostic equipment that can read neccessary data.