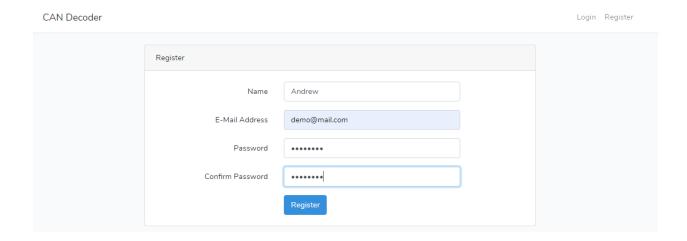
Cloud service <u>can2sky.com</u> can be used for decoding and analysys of CAN logs recorded by CAN-usb devices.

Plz note: service is still in development so you can get an error during operations sometimes, because it is modified on-the-run. Just try to make an operation later. Sorry:)

You have to register to enter service. Email requires confirmation, which will be sent by service.



DASHBOARD



After login you can load your first CAN log

Following formats are supported:

1. CAN-hacker trc-file (29bit SAE J1939) - commercial vehicles, special and agriculture machinery, diesel gensets etc. This file should have an extension *.trc

Example of this format:

Time ID DLC Data Comment 40,425 18FFB5F2 8 3A 82 FF 5C C6 80 11 05 40,431 18F005F6 8 FF FF FB FF FF 20 50 40,431 14FFB4F6 8 00 FF 16 F0 FF FF FF

40,433 18FFB6F2 8 00 00 00 00 F1 12 FF FF

Download example

https://drive.google.com/open?id=17j4t-xyq274q5zrWYUeQr_TNbqUhmXEw

2. Candump log-file (11-bit CAN bus from cars). This file should have an extension *.log

Example of format:

(1579876676.199507) slcan0 2DE#0000000000000050

(1579876676.199539) slcan0 358#000A800000000000

(1579876676.199547) slcan0 1CA#000000005005055

(1579876676.199553) slcan0 1CB#0000000000185

(1579876676.199559) slcan0 35D#8003000000000000

(1579876676.203851) slcan0 60D#2006000000000000

(1579876676.203882) slcan0 245#7FE80218E8007FE0

(1579876676.203891) slcan0 292#7EC8008010000000

(1579876676.203898) slcan0 130#003364

(1579876676.203904) slcan0 002#DD00000752

(1579876676.203910) slcan0 174#000000AA08000000

(1579876676.203916) slcan0 176#00000000000008

(1579876676.206795) slcan0 180#0000000000002800

(1579876676.206825) slcan0 1D5#0000000D6

(1579876676.206833) slcan0 1F9#0000000000000000

(1579876676.206840) slcan0 50D#0000000000000000

Download example

https://drive.google.com/open?id=1rRsrHnBlxYQ_1rf2h83AosSglVAti5uE

3. CAN-hacker trc-file (11-bit CAN from cars). This file should have an extension *.trc

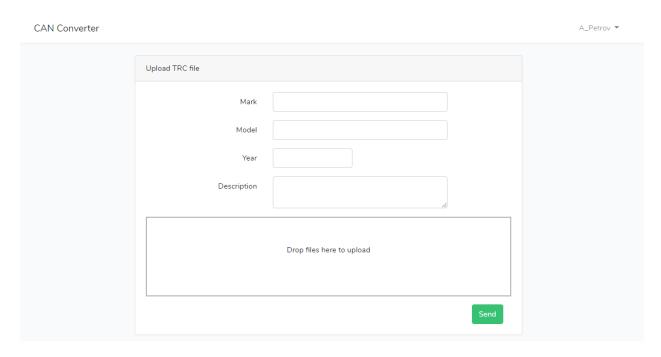
Example of format

36,492	1 0004	40A	8	C0 00 38 8F 94 DA 07 3A 00000000
36,592	1 0004	40A	8	C0 01 00 00 9F AF 00 35 00000000
36,692	1 0004	40A	8	BF 00 3D 04 02 37 A7 00 00000000

36,792	1 0004	40A	8	BF 02 22 00 00 00 02 2B 00000000
36,892	1 0004	40A	8	BF 03 30 00 02 00 00 00 000000000
36,992	1 0004	40A	8	BF 04 31 80 00 24 00 06 00000000
37,092	1 0004	40A	8	BF 05 10 00 00 00 00 00 000000000
37,192	1 0004	40A	8	BF 06 10 00 00 10 00 00 000000000
37,292	1 0004	40A	8	BF 07 10 00 00 10 00 00 00000000

Download example

https://drive.google.com/open?id=1af5rt9dg6vW5xMFiml66exj-UyZS7MID



4. Import from CSV format. This file should have an extension *.csv

First string - header with names of rows. SA row is not necessary.

time;PGN;SA;b0;b1;b2;b3;b4;b5;b6;b7;;

0,01;41;1;7A;3;0;0;0;0;0;0;;

0,02;50;1;0;20;90;B0;FF;FF;FF;FF;;

0,03;0D0;1;B5;20;0;8;0D;90;FF;FF;;

0,04;1A0;1;0;40;0;0;FE;FE;0;0E;;

0,05;280;1;1;22;CC;0C;22;0;17;19;;

0,06;288;1;8A;7B;10;0;0;53;93;0F;;

Download example

https://drive.google.com/open?id=1Iq7u--1ntL8CxGbY5Sy4GXGEVE5qYkls

For 29-bit CAN bus, just use 2 bytes of PGN in PGN column (for example - FEF2, FECA, etc).

5. Don't remember which software produce this log format but it is supported too.

Time: 0.026104 ID: 0x2E5 Std Bus: 1 Len: 8

Data Bytes: 0x00 0x00 0x01 0x0B 0x00 0x00 0xDD 0x00

Time: 0.032764 ID: 0x266 Std Bus: 1 Len: 8

Data Bytes: 0x00 0x00 0x01 0x2F 0x00 0x00 0x94 0x01

Time: 0.036190 ID: 0x2E5 Std Bus: 1 Len: 8

Data Bytes: 0x00 0x00 0x01 0x0B 0x00 0x00 0xDD 0x00

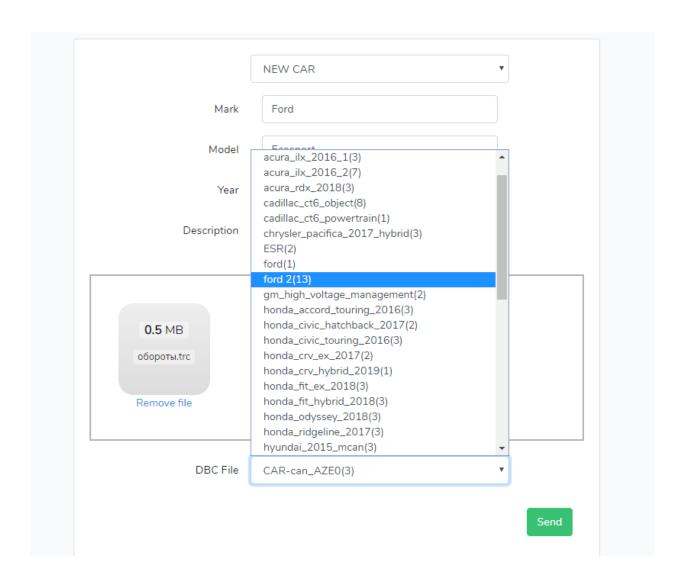
Time: 0.042627 ID: 0x266 Std Bus: 1 Len: 8

Data Bytes: 0x00 0x00 0x01 0x2F 0x00 0x00 0x94 0x01

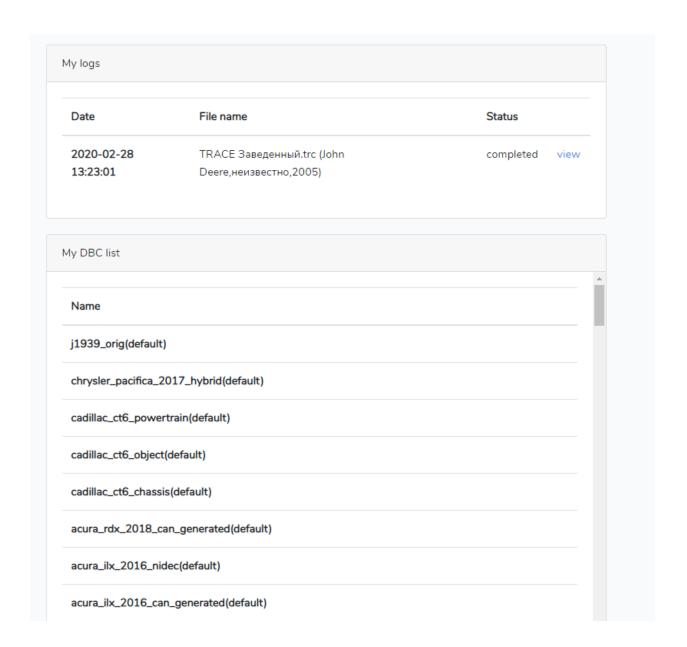
Drag your CAN-log file (one of supported formats listed above) and fill information about vehicle (all fields are required)

	NEW CAR	*
Mark	Subaru	
Model	Forester	
Year	2013	
Description	lock, unlock	
0.2 MB Subaru Fores Remove file		

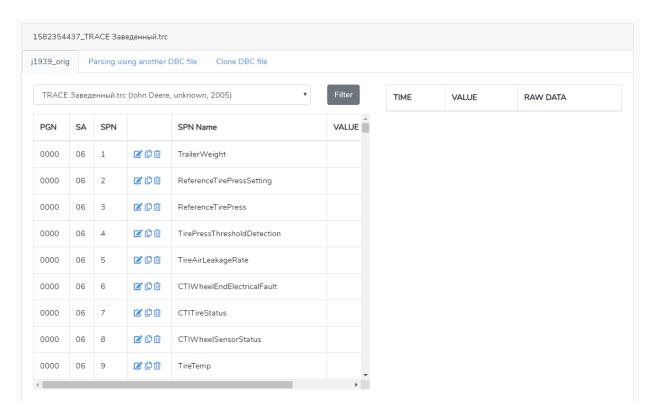
Then we can choose a parser to decode the data. Service check all possible parsers and show a number of known parameters. Choose most suitable parser to decode your log. Take into account that same manufacturer parser most likely will provide you better results. Click Send.



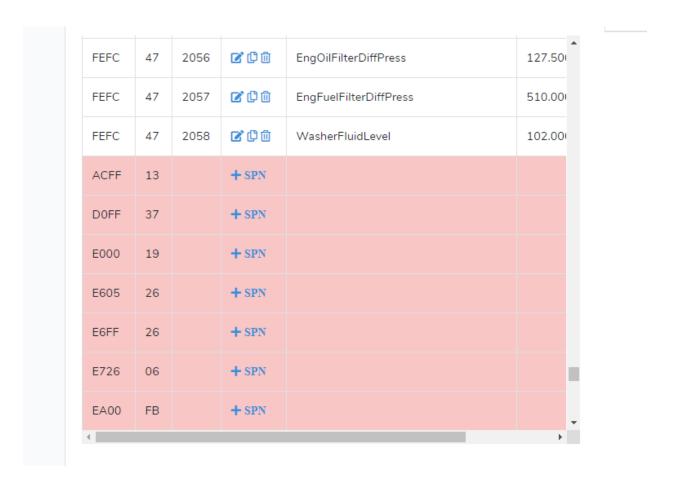
Then main dashboard window appears where you can see all your logs and parsers (both default and your private parsers).



After some time you will see VIEW status nearby your log. That means parsing is finished and we can analyze data now. Click View. **Analysis link will appear after some time, please, wait for it.**



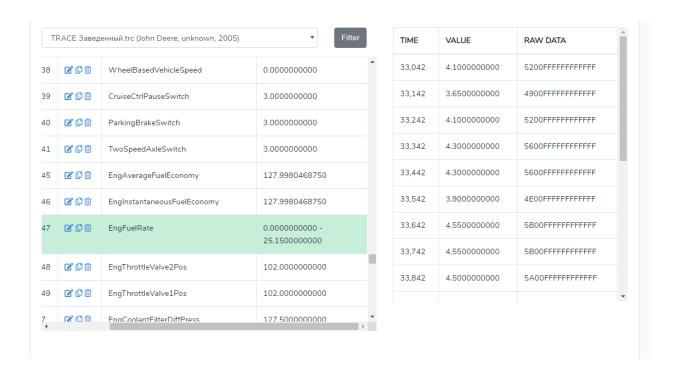
Left part of screen – a list of CAN identifiers which are active in this log. Some of them are reckognized by DBC-parser, some – not (marked with red background).

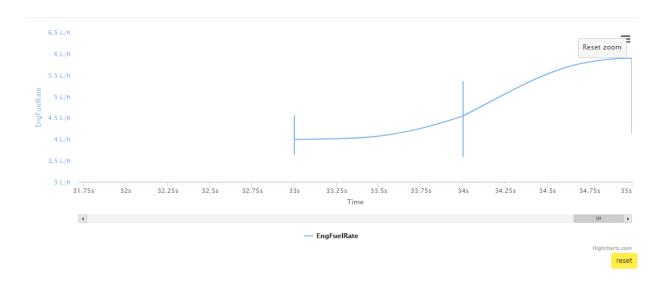


Value column shows minimum and maximum parameter value during log.

You can change a period for analysis using Time Filter range settings.

If you click on parameter in the parameter's list – it becomes green. Table of values will appear and parameter plot.



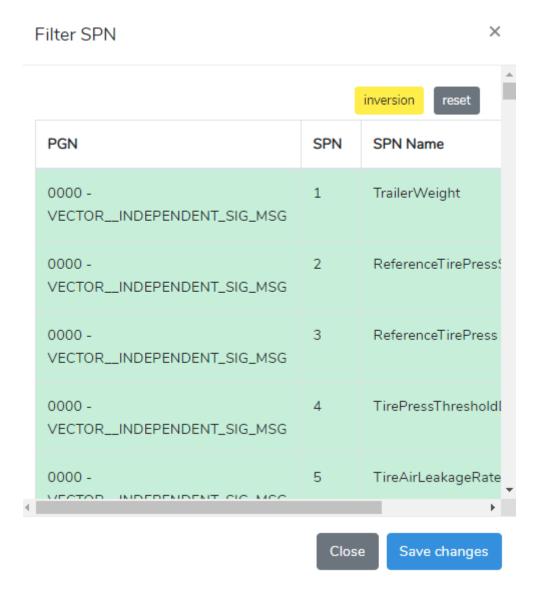


You may zoom plot with left mouse button and selecting a part of plot.

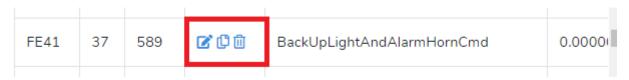
You can built several plots at once, also you can combine plots from different log-files. To choose another source of parameters you can click on listbox of loaded logs.



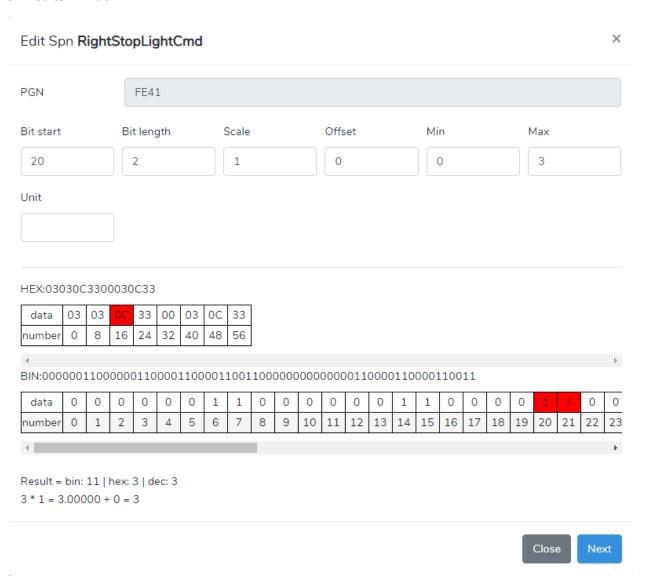
Filter section allows to filter out not using PGN from list. Parameters marked green will appears in the list. Inversion will reverse selection.



The rules of CAN-bus messages decoding are described by DBC-files. Each parameter (SPN) has its own decoding rule which you can edit, clone or delete in SPN editor



SPN editor window:



Bit start – start position of parameter in CAN bus message (in bits, because there are a lot of bit-coded parameters). Each byte=8 bits (fyi).

Bit length – length of CAN parameter in bits

Scale – scale how to convert can value to real parameter

Offset – offset of real value, so real data calculated as CAN parameter * scale + offset

Min and Max – minimum and maximum value (optional)

You can see also result of your decoding operation in DEC, HEX and binary format.

After SPN edition you will be prompted to save a DBC-parser under new name (you can't modify default DBC-file), you can only create new version of it. Creation of new DBC-parser can take a lot of time (several minutes, please, be patient).

Create new DBC	×
Current file j1939_orig cannot be changed. Please crea	te new DBC file:
Name DBC file	
j1939_orig(and)	
wait	

In SPN-editor you can add decoding rules for unrecognized messages.

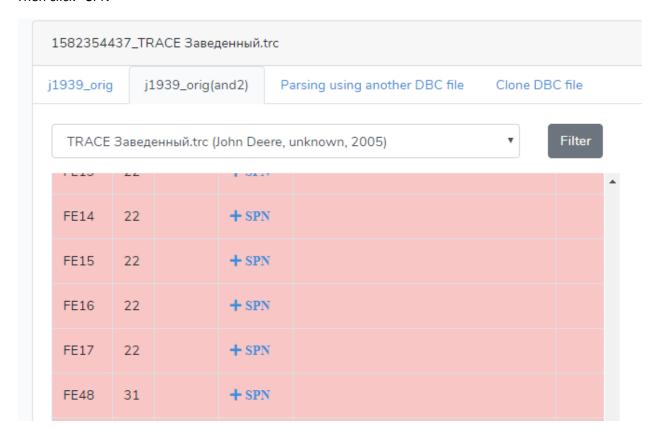
FEFC	47	2056		EngOilFilterDiffPress	127.50	
FEFC	47	2057	6 0 0	EngFuelFilterDiffPress	510.000	
FEFC	47	2058	C P ii	WasherFluidLevel	102.00	
ACFF	13		+ SPN			
DOFF	37		+ SPN			
E000	19		+ SPN			
E605	26		+ SPN			
E6FF	26		+ SPN			
E726	06		+ SPN			
						₩.

Click +SPN for to make it.

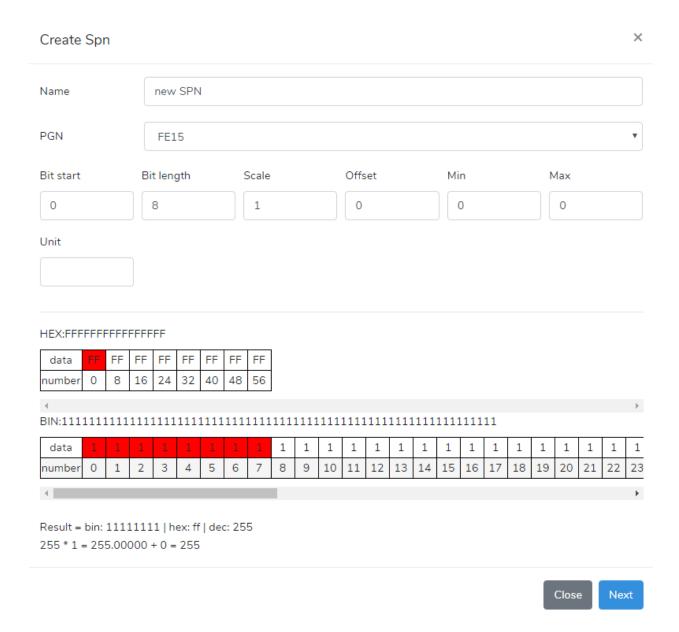
Again, you cannot create new SPN rule in default DBC, so you will be prompted to make a new one



Then click +SPN

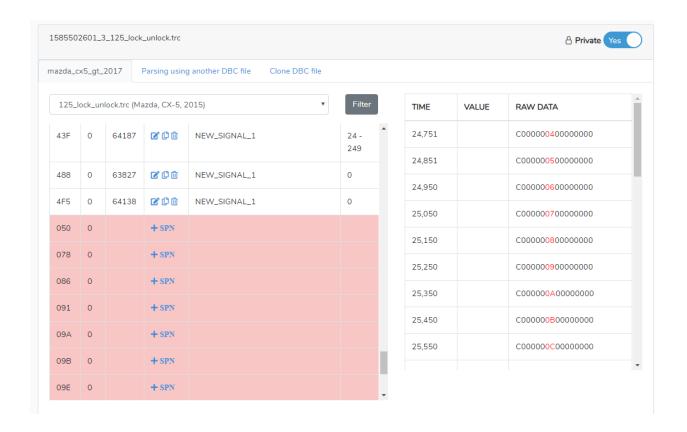


SPN-editor will appear where you can put a name of SPN and set meaningful bits and scale.



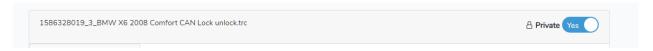
Since new SPN have been created you may use its result for plots and analyze together with other parameters.

Active (changing) bytes during period of analysis will be colored.

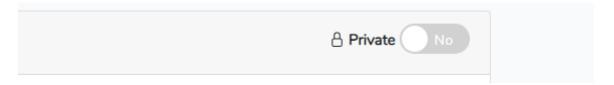


Part 2. Public logs.

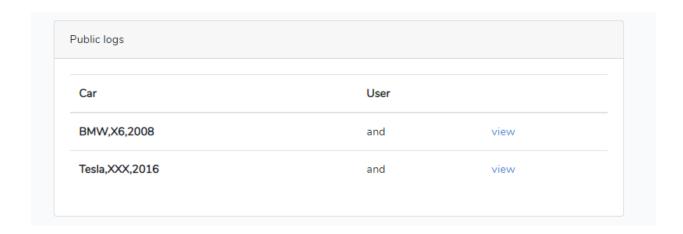
By default, every log is private and can be reviewed only by its owner.



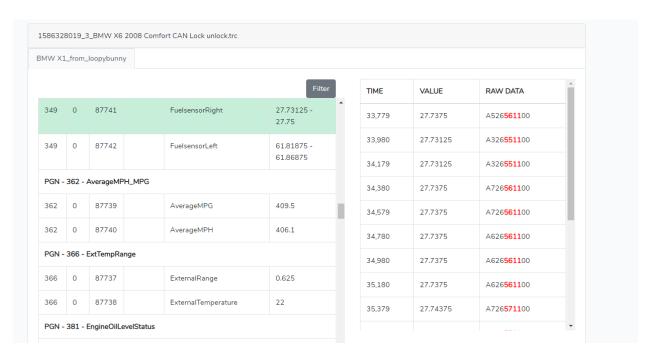
But you can turn off this switch and make log "Public".



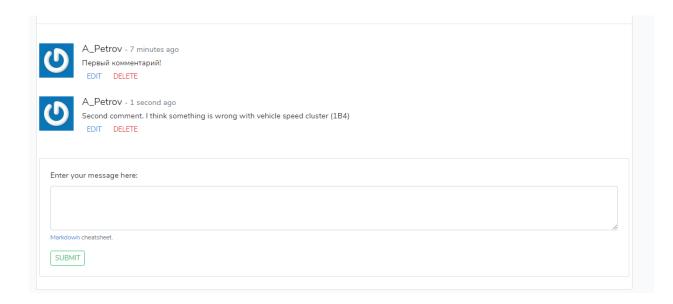
After login under new username we will see this log in public section, accessible for any user of platform.



Everybody can review it and built plots.



And post comments under log.



Collaboration features of DBC-edition will be added later