How to enable OBD I/O elements via configurator

Data is saved as I/O elements. OBD I/O elements must be enabled using configurator. All OBD elements are configured in same logic as other I/O property elements (Figure 2).

SCAN function.

SCAN function allows user to automatically scan for available messages on OBD. FM1000 can scan available OBD messages if ALL of these conditions are met:

- Ignition must be ON.
- Device connected to vehicle through OBD and to PC with USB.
- Check box "Show All" must remain unchecked.

After pressing SCAN only readable parameters will remain in configurator.

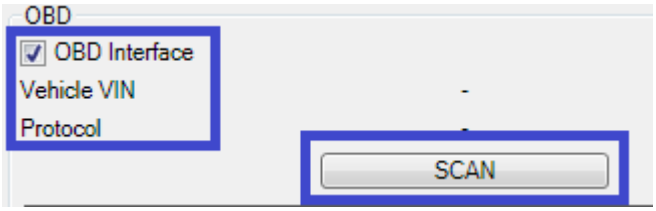

Figure 1 CAN configuration menu

Check box "Show All" – enables OBD configuration when FM1000 is not connected to vehicle;

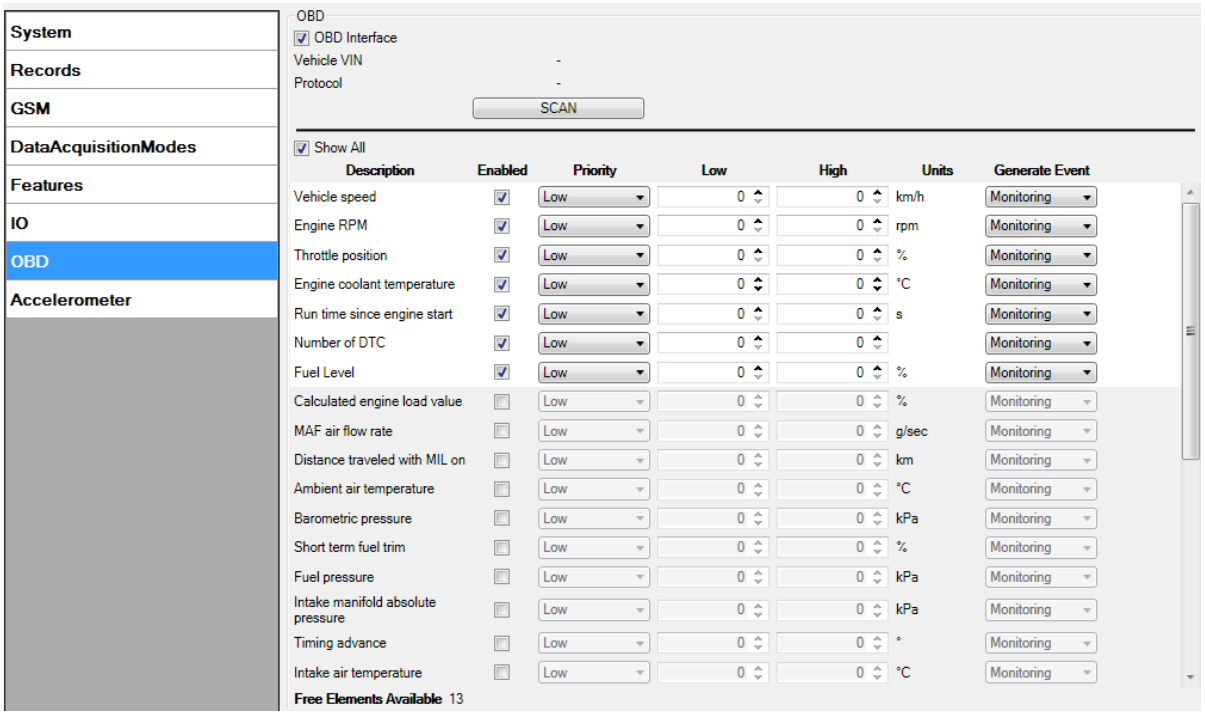

Figure 2 available OBD IO elements on configurator window

OBD IO list:

Name	Min	Max	Unit	Size	Multiplier
"Number of DTC"	0	255		1B	x1
"Calculated engine load value"	0	100	%	1B	x1
"Engine coolant temperature"	-40	215	°C	1B	x1
"Short term fuel trim 1"	-100	99	%	1B	X1
"Fuel pressure"	0	765	kPa	2B	X1

“Intake manifold absolute pressure”	0	255	kPa	1B	X1
“Engine RPM”	0	16383	rpm	2B	X1
“Vehicle speed”	0	255	km/h	1B	X1
“Timing advance”	-64	63	°	1B	X1
“Intake air temperature”	-40	215	°C	1B	X1
“MAF air flow rate”	0	65535	g/s	2B	X0.01
“Throttle position”	0	100	%	1B	X1
“Run time since engine start”	0	65535	s	2B	X1
“Distance traveled MIL on”	0	65535	km	2B	X1
“Relative fuel rail pressure”	0	51772	kPa	2B	X0.1
“Direct fuel rail pressure”	0	65535	kPa	2B	X0.1
“Commanded EGR”	0	100	%	1B	X1
“EGR error”	-100	99	%	1B	X1
“Fuel level”	0	100	%	1B	X1
“Distance traveled since codes cleared”	0	65535	km	2B	X1
“Barometric pressure”	0	255	kPa	1B	X1
“Control module voltage”	0	65535	mV	2B	X1
“Absolute load value”	0	25700	%	2B	X1
“Ambient air temperature”	-40	215	°C	1B	X1
Time run with MIL on	0	65535	min	2B	X1
“Time since trouble codes cleared”	0	65535	min	2b	X1
“Absolute fuel rail pressure”	0	65535	kPa	2B	X10
“Hybrid battery pack remaining life”	0	100	%	1B	X1
“Engine oil temperature”	-40	210	°C	1B	X1
“Fuel injection timing”	-21000	30199	°	2B	X0.01

Table 1 OBD IO list

Note: Available OBD elements depend on vehicle’s brand, model and year of manufacturing.
More information on OBD PIDs: http://en.wikipedia.org/wiki/OBD-II_PIDs