FMM640 LVCAN I/O,FMS IO and Tachograph data elements

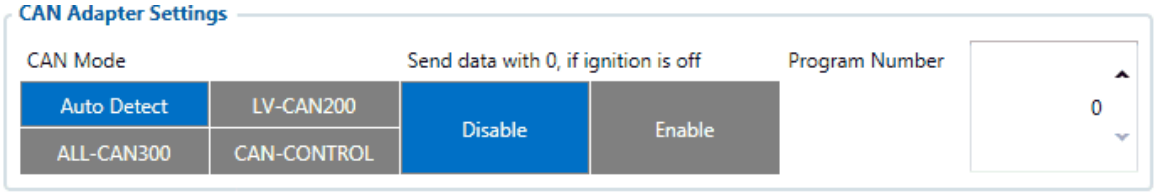
Contents

- 1 LVCAN
- 2 FMS
- 3 Tachograph Data
  - 3.1 Tachograph Counter related elements

LVCAN, *FMS IO* and *Tachograph data* sections shows I/O elements that can be obtained accordingly from external devices connected to FMM640 device. All I/O configuration is as described I/O elements.

LVCAN

LVCAN elements can be configured in the same way as normal I/O elements. LVCAN IO elements can also be configured remotely via SMS command.

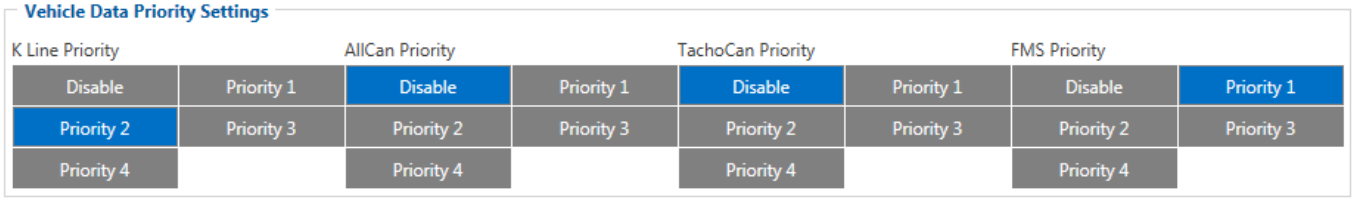


FMS

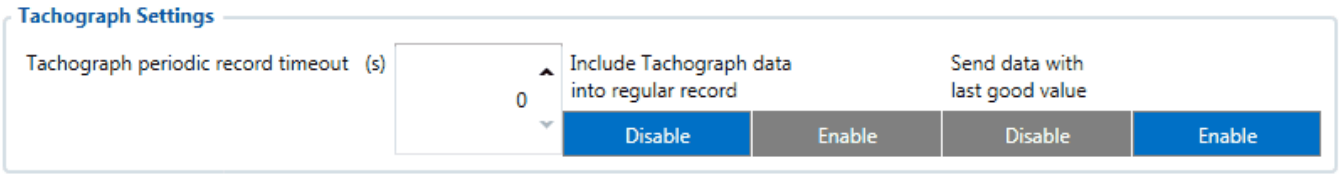
FMS, or Fleet Management Systems Interface, is a sector to configure and manage events based on vehicle data of commercial vehicles. Vehicle data comes through CAN lines. Event configuring isn't different from those in LVCAN and I/O sectors. The only difference is IDs.

Tachograph Data

Tachograph data can be taken from Tachograph via K-Line, ALLCAN, Tacho CAN, or FMS. Data here is constantly refreshed. Like the other elements' windows, this one also has all the options to configure event generation.



By default, FMM640 sends Tachograph data included in the regular record, but the device can be configured to send Tachograph data as a separate AVL packet



If Tachograph data included in the regular record is Disabled, Tachograph periodic record timeout will define how often Tachograph Data will be sent to the server as a separate AVL packet.

Send data with last good value Added a feature that allows choosing to generate a Tachograph data record or not depending on remembered last good value. If the parameter is enabled and if there were good data values received but now no new data is received, when the record will be generated it will be filled with the last good data values.
In the base version as well as in this special firmware there is a 30 seconds timeout during which Kline values are still being stored in RAM.
If the last good value parameter is disabled and good data stopped streaming, data will still be available for 30 seconds.

Tachograph Counter related elements

Newly added IO elements (AVL ID 10504-10517 and 10522-10531 from 01.02.12 firmware version) include data reading from the Tachograph Counter functionality – displaying daily/weekly remaining driving and rest times on the tachograph menu.
Note that these parameters can be optional on your tachograph - meaning that by default not all the tachographs have this feature enabled/supported from the factory.
For example – VDO DTCO tachographs support the Counter functionality from version 2.0, however in OEM tachograph versions – non-universal tachographs – meant specifically for truck manufacturers i.e. Mercedes/DAF – Counter functionality can be disabled from the factory.
In order to properly read these IO elements with FMX640 – Counter functionality has to be enabled.
VDO DTCO 2.1 tachograph can be updated via “DTCO VDO Counter Update Card” – **P/N A2C5951660366**
Newer DTCO versions can have the Counter functionality enabled by entering the license key provided by the manufacturer.
To see if new IO elements will be read from your tachograph, we recommend contacting your local workshop, specifying the tachograph part number, and following the workshop instructions if any are required.

Tachograph data parameters that support different communications:

Parameter	K-Line	K-Line (Front Panel)	ALLCAN	TachoCAN	FMS
Timestamp	+	+	-	+	-
Driver recognize	+	+	-	+	+
Overspeeding	+	+	-	+	+
Vehicle speed	+	+	+	+	+
Odometer	+	+	+	+	+
Distance	+	+	+	+	+

VIN	+	+	-	+	+
VRN	+	+	-	+	-
Driver 1 working state	+	+	+	+	+
Driver 2 working state	+	+	+	+	+
Driver 1 card	+	+	+	+	+
Driver 2 card	+	+	+	+	+
Driver 1 time related state	+	+	-	+	+
Driver 2 time related state	+	+	-	+	+
Driver 1 ID number	+	+	+	+	+
Driver 2 ID number	+	+	+	+	+
Card 1 issuing state	+	+	-	+	-
Card 2 issuing state	+	+	-	+	-
Driver 1 Continuous drive time	-	+	+	+	-
Driver 2 Continuous drive time	-	+	+	+	-
Driver 1 cumulative break time	-	+	+	+	-
Driver 2 cumulative break time	-	+	+	+	-
Driver 1 selected activity duration	-	+	+	+	-
Driver 2 selected activity duration	-	+	+	+	-
Driver 1 cumulative driving time	-	+	+	+	-
Driver 2 cumulative driving time	-	+	+	+	-
Data Source	+	+	+	+	+
From Firmware 01.02.12:					
Drivers hours rules pre warning time delay	-	+	-	+	-
Out of scope condition	-	+	-	+	-
Next calibration date	-	+	-	+	-
Driver1 end of last daily rest period	-	+	-	+	-
Driver2 end of last daily rest period	-	+	-	+	-
Driver1 end of last weekly rest period	-	+	-	+	-
Driver2 end of last weekly rest period	-	+	-	+	-
Driver1 end of second last weekly rest period	-	+	-	+	-
Driver2 end of second last weekly rest period	-	+	-	+	-
Driver1 current daily driving time	-	+	-	+	-
Driver2 current daily driving time	-	+	-	+	-
Driver1 current weekly driving time	-	+	-	+	-
Driver2 current weekly driving time	-	+	-	+	-
Driver1 time left until new daily rest period	-	+	-	+	-
Driver2 time left until new daily rest period	-	+	-	+	-
Driver1 number of times 9h daily driving times exceeded	-	+	-	+	-
Driver2 number of times 9h daily driving times exceeded	-	+	-	+	-
Driver1 Name	-	+	-	+	-
Driver1 SurName	-	+	-	+	-
Driver2 Name	-	+	-	+	-
Driver2 SurName	-	+	-	+	-
Driver 1 Time Left Until New Weekly Rest Period	-	+	-	+	-
Driver 2 Time Left Until New Weekly Rest Period	-	+	-	+	-
Driver 1 Minimum Daily Rest	-	+	-	+	-
Driver 2 Minimum Daily Rest	-	+	-	+	-
Driver 1 Minimum Weekly Rest	-	+	-	+	-

Driver 2 Minimum Weekly Rest	-	+	-	+	-
Driver 1 Duration Of Next Break Rest	-	+	-	+	-
Driver 2 Duration Of Next Break Rest	-	+	-	+	-
Driver 1 Remaining Time Until Next Break Or Rest	-	+	-	+	-
Driver 2 Remaining Time Until Next Break Or Rest	-	+	-	+	-
From Firmware 01.02.24.Rev.60					
Driver 1 Remaining Current Driving Time	-	+	-	+	-
Driver 1 Remaining Driving Time On Current Shift	-	+	-	+	-
Driver 1 Remaining Driving Time Of Current Week	-	+	-	+	-
Driver 1 Open Compensation In The Last Week	-	+	-	+	-
Driver 1 Open Compensation In Week Before Last	-	+	-	+	-
Driver 1 Open Compensation In 2nd Week Before Last	-	+	-	+	-
Driver 1 Additional Information	-	+	-	+	-
Driver 1 Remaining Time Of Current Break Rest	-	+	-	+	-
Driver 1 Time Left Until Next Driving Period	-	+	-	+	-
Driver 1 Duration Of Next Driving Period	-	+	-	+	-