

# FMS Eco Driving Report Structure

IO Name	Record Structure	Description
		0 - Periodic 1 - Trip Start 2 - Trip End 3 - Driver change 4 - Device startup 5 - Device off / reset 6 - End of Day 7 - VIN Change 8 - Ignition Off 9 - Ignition On
Event Type		Trip Odometer value
Ignition		Total Distance IO element indicates measured vehicle total traveled distance.
Trip		Accumulated amount of fuel used during vehicle operation.
Total Distance		Driver ID number
Engine Fuel used		Vehicle identification number
Active Driver ID		Number of events
VIN Number		1. Fuel rate below X or Engine torque below X 2. Brake switches off (brakes are not currently in use) 3. Vehicle speed above X km/h 4. Cruise control is not detected to be enabled (OFF)
Event Counter		Accumulated amount of fuel used during Coasting event.
Coasting Distance		Time of how long the event lasted
Coasting Fuel used		1. Fuel rate below X or Engine torque below X 2. Brake switches off (brakes are not currently in use) 3. Vehicle speed above X km/h 4. Cruise control is not detected to be enabled (OFF)
Coasting Time		Accumulated amount of fuel used during Coasting event.
EcoRoll Distance		Time of how long the event lasted
EcoRoll Fuel used		1. Fuel rate below X or Engine torque below X 2. Brake switches off (brakes are not currently in use) 3. Vehicle speed above X km/h 4. Cruise control is not detected to be enabled (OFF) 5. Neutral gear detected
EcoRoll Time		Accumulated amount of fuel used during EcoRoll event.
Braking Distance		Time of how long the event lasted
Braking Fuel used		Brake pedal is used
Braking Time		Accumulated amount of fuel used during Braking event.
Braking Count		Time of how long the event lasted
Retarder Distance		Amount of brakes
Retarder Fuel used		Retarder braking detected from FMS parameter
Retarder Time		Accumulated amount of fuel used during Retarder event.
Cruise Distance		Time of how long the event lasted
Cruise Fuel used		Cruise control is detected to be is used
Cruise Time		Accumulated amount of fuel used during Cruise event.
Torque Distance		Time of how long the event lasted
Torque Fuel used		Distance counted from configured X acceleration pedal position level
Torque Time		Accumulated amount of fuel used during Torque event.
PTO Distance		Time of how long the event lasted
PTO Fuel used		Distance counted on PTO event.
PTO Time		Accumulated amount of fuel used during PTO event.
Fuel While Driving		Time of how long the event lasted
Fuel While Idle		1. Speed > 0km/h is detected 2. Fuel consumption parameter is received 3. Ignition ON
Engine Load fuel		1. Speed = 0km/h is detected 2. Fuel consumption parameter is received 3. Ignition ON
Total Distance		1. Engine load percentage will be configurable parameter XX% 2. Speed > 0km/h is detected 3. Fuel consumption parameter is received 4. Ignition ON 5. Engine load parameter > X is detected
Total Fuel used		Total distance count
Total Time		Total Fuel used count
Short Stops Count		Total time of how long the events lasted
Long Stops Count		Total Short stops count
Speed Range 1 Distance		Total Long stops count
Speed Range 2 Distance		
Speed Range 3 Distance		
Speed Range 4 Distance		
Speed Range 5 Distance		
Speed Range 6 Distance		
Speed Range 7 Distance		
Speed Range 8 Distance		
Speed Range 9 Distance		
Speed Range 10 Distance		
Speed Range 1 Fuel used		
Speed Range 2 Fuel used		
Speed Range 3 Fuel used		
Speed Range 4 Fuel used		
Speed Range 5 Fuel used		
Speed Range 6 Fuel used		
Speed Range 7 Fuel used		
Speed Range 8 Fuel used		
Speed Range 9 Fuel used		
Speed Range 10 Fuel used		
Speed Range 1 Time		
Speed Range 2 Time		
Speed Range 3 Time		
Speed Range 4 Time		
Speed Range 5 Time		
Speed Range 6 Time		
Speed Range 7 Time		
Speed Range 8 Time		
Speed Range 9 Time		
Speed Range 10 Time		
RPM Range 1 Distance		
RPM Range 2 Distance		
RPM Range 3 Distance		
RPM Range 4 Distance		
RPM Range 5 Distance		
RPM Range 6 Distance		
RPM Range 7 Distance		
RPM Range 8 Distance		
RPM Range 9 Distance		
RPM Range 10 Distance		
RPM Range 1 Fuel used		
RPM Range 2 Fuel used		
RPM Range 3 Fuel used		
RPM Range 4 Fuel used		
RPM Range 5 Fuel used		
RPM Range 6 Fuel used		
RPM Range 7 Fuel used		
RPM Range 8 Fuel used		
RPM Range 9 Fuel used		
RPM Range 10 Fuel used		
RPM Range 1 Time		
RPM Range 2 Time		
RPM Range 3 Time		
RPM Range 4 Time		
RPM Range 5 Time		
RPM Range 6 Time		
RPM Range 7 Time		
RPM Range 8 Time		
RPM Range 9 Time		
RPM Range 10 Time		
Torque Range 1 Distance		
Torque Range 2 Distance		
Torque Range 3 Distance		
Torque Range 4 Distance		
Torque Range 5 Distance		
Torque Range 6 Distance		
Torque Range 7 Distance		
Torque Range 8 Distance		
Torque Range 9 Distance		
Torque Range 10 Distance		
Torque Range 1 Fuel used		
Torque Range 2 Fuel used		
Torque Range 3 Fuel used		
Torque Range 4 Fuel used		
Torque Range 5 Fuel used		
Torque Range 6 Fuel used		
Torque Range 7 Fuel used		
Torque Range 8 Fuel used		
Torque Range 9 Fuel used		
Torque Range 10 Fuel used		
Torque Range 1 Time		
Torque Range 2 Time		
Torque Range 3 Time		
Torque Range 4 Time		
Torque Range 5 Time		
Torque Range 6 Time		
Torque Range 7 Time		
Torque Range 8 Time		
Torque Range 9 Time		
Torque Range 10 Time		
Braking Range 1 Distance		
Braking Range 2 Distance		
Braking Range 3 Distance		
Braking Range 4 Distance		
Braking Range 5 Distance		
Braking Range 6 Distance		
Braking Range 7 Distance		
Braking Range 8 Distance		
Braking Range 9 Distance		
Braking Range 10 Distance		
Braking Range 1 Fuel used		
Braking Range 2 Fuel used		
Braking Range 3 Fuel used		
Braking Range 4 Fuel used		
Braking Range 5 Fuel used		
Braking Range 6 Fuel used		
Braking Range 7 Fuel used		
Braking Range 8 Fuel used		
Braking Range 9 Fuel used		
Braking Range 10 Fuel used		

# FMS Eco Driving parsed example

## Unparsed data

```

00000000 000001F3 8E 01 00000186B6204915 00 0F0E8788 209ADC40 007B 0027 11 0000 2EE0
0023 0000 0000 0023 2F65 00000000 2F66 00000000 2F67 00000000 2F68 00000000 2F69
00000000 2F6A 00000000 2F6B 00000000 2F6C 00000000 2F6D 00000000 2F6E 00000000 2F6F
00000000 2F70 00000000 2F71 00000000 2F72 00000000 2F73 00000000 2F74 00000000 2F75
00000000 2F76 00000000 2F77 00000000 2F78 00000000 2F79 00000000 2F7A 00000000 2F7B
00000000 2F7C 00000000 2F7D 00000000 2F7E 00000000 2F7F 00000000 2F80 00000000 2F81
00000000 2F82 00000000 2F83 00000000 2F84 00000000 2F85 00000000 2F86 00000000 2F87
00000000 0000 0000 01 0000CE87
    
```

## Parsed data

### Parsed Beacon data part

```

Zero Bytes
Data Field Length
Codec ID
Number of Data 1 (Records)
Timestamp
Priority
Longitude
Latitude
Altitude
Angle
Satellites
Speed
Event Type
Number of total ID's
Number of One Byte IO ID's
Number of Two Bytes IO ID's
Number of Four Bytes IO ID's
RPM Range 4 Distance
RPM Range 4 Distance Value
RPM Range 5 Distance
RPM Range 5 Distance Value
RPM Range 6 Distance
RPM Range 6 Distance Value
RPM Range 7 Distance
RPM Range 7 Distance Value
RPM Range 8 Distance
RPM Range 8 Distance Value
RPM Range 9 Distance
RPM Range 9 Distance Value
RPM Range 10 Distance
RPM Range 10 Distance Value
RPM Range 1 Fuel used
RPM Range 1 Fuel used Value
RPM Range 2 Fuel used
RPM Range 2 Fuel used Value
RPM Range 3 Fuel used
RPM Range 3 Fuel used Value
RPM Range 4 Fuel used
RPM Range 4 Fuel used Value
RPM Range 5 Fuel used
RPM Range 5 Fuel used Value
RPM Range 6 Fuel used
RPM Range 6 Fuel used Value
RPM Range 7 Fuel used
RPM Range 7 Fuel used Value
RPM Range 8 Fuel used
RPM Range 8 Fuel used Value
RPM Range 9 Fuel used
RPM Range 9 Fuel used Value
RPM Range 10 Fuel used
RPM Range 10 Fuel used Value
RPM Range 1 Time
RPM Range 1 Time Value
RPM Range 2 Time
RPM Range 2 Time Value
RPM Range 3 Time
RPM Range 3 Time Value
RPM Range 4 Time
RPM Range 4 Time Value
RPM Range 5 Time
    
```

### HEX Code Part

```

00 00 00 00
00 00 01 F3
8E
01
00 00 01 86 B6 20 49 15
00
0F 0E 87 88
20 9A DC 40
00 7B
00 27
11
00 00
2E E0 (AVL ID: 12000)
00 23
00 00
00 00
00 23
2F 65 (AVL ID: 12133)
00 00 00 00
2F 66 (AVL ID: 12134)
00 00 00 00
2F 67 (AVL ID: 12135)
00 00 00 00
2F 68 (AVL ID: 12136)
00 00 00 00
2F 69 (AVL ID: 12137)
00 00 00 00
2F 6A (AVL ID: 12138)
00 00 00 00
2F 6B (AVL ID: 12139)
00 00 00 00
2F 6C (AVL ID: 12140)
00 00 00 00
2F 6D (AVL ID: 12141)
00 00 00 00
2F 6E (AVL ID: 12142)
00 00 00 00
2F 6F (AVL ID: 12143)
00 00 00 00
2F 70 (AVL ID: 12144)
00 00 00 00
2F 71 (AVL ID: 12145)
00 00 00 00
2F 72 (AVL ID: 12146)
00 00 00 00
2F 73 (AVL ID: 12147)
00 00 00 00
2F 74 (AVL ID: 12148)
00 00 00 00
2F 75 (AVL ID: 12149)
00 00 00 00
2F 76 (AVL ID: 12150)
00 00 00 00
2F 77 (AVL ID: 12151)
00 00 00 00
2F 78 (AVL ID: 12152)
00 00 00 00
2F 79 (AVL ID: 12153)
00 00 00 00
2F 7A (AVL ID: 12154)
    
```

