

## Teltonika AVL packet parser user guide

This document is based on the description how to use the Teltonika AVL data parser pack. The archived pack is divided in to the four main parts:

- Teltonika.Data.Parser v1.2.0.0
- TcpListener v1.2.0.0
- UdpListener v1.2.0.0
- Teltonika.Parser (source code)

### Teltonika data parser

Teltonika data parser is responsible for raw AVL data packet readout. To run the parsing software, please select the file: *Teltonika.DataParser.Client.exe* - **figure 1**.

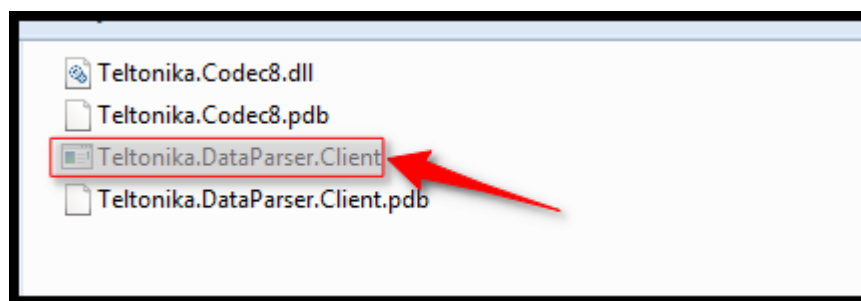
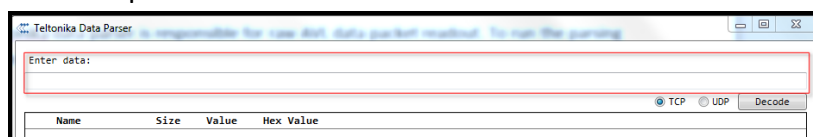


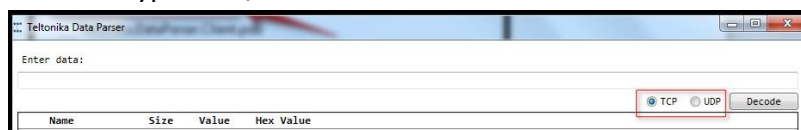
Figure 1 Parser application

After the software is opened, four information parts will be shown:

1. Raw AVL packet text area



2. Protocol type: TCP/UDP



3. Parsing process activation – „Decode“

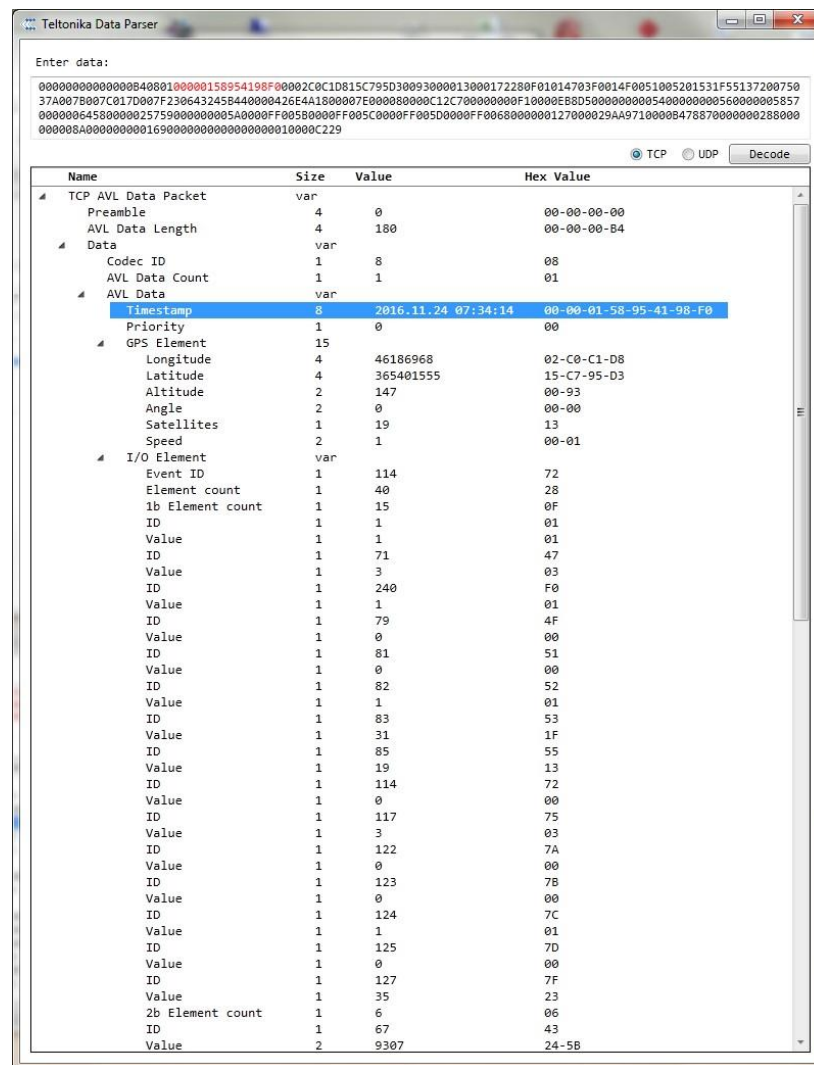


#### 4. Information field: Name, size, value, max value



Paste Your AVL record in to the field „Enter data“, select which protocol was used to send record, and press „Decode“.

After parsing is done the table with description of each byte will appear. The selected data in the table will be marked in the AVL packet as red color, **figure 2**.



Name	Size	Value	Hex Value
TCP AVL Data Packet	var		
Preamble	4	0	00-00-00-00
AVL Data Length	4	180	00-00-00-B4
Data	var		
Codec ID	1	8	08
AVL Data Count	1	1	01
AVL Data	var		
Timestamp	8	2016.11.24 07:34:14	00-00-01-58-95-41-98-F0
Priority	1	0	00
GPS Element	15		
Longitude	4	46186968	02-C0-C1-D8
Latitude	4	365401555	15-C7-95-D3
Altitude	2	147	00-93
Angle	2	0	00-00
Satellites	1	19	13
Speed	2	1	00-01
I/O Element	var		
Event ID	1	114	72
Element count	1	40	28
1b Element count	1	15	0F
ID	1	1	01
Value	1	1	01
ID	1	71	47
Value	1	3	03
ID	1	240	F0
Value	1	1	01
ID	1	79	4F
Value	1	0	00
ID	1	81	51
Value	1	0	00
ID	1	82	52
Value	1	1	01
ID	1	83	53
Value	1	31	1F
ID	1	85	55
Value	1	19	13
ID	1	114	72
Value	1	0	00
ID	1	117	75
Value	1	3	03
ID	1	122	7A
Value	1	0	00
ID	1	123	7B
Value	1	0	00
ID	1	124	7C
Value	1	1	01
ID	1	125	7D
Value	1	0	00
ID	1	127	7F
Value	1	35	23
2b Element count	1	6	06
ID	1	67	43
Value	2	9307	24-5B

Figure 2 Teltonika data Parser application

## Teltonika TCP and UDP listeners

Teltonika TCP and UDP listeners are responsible for incoming raw AVL data packets readout. To run TCP and UDP listeners, please select the file depending on the protocol:

***TcpListenerApp.exe*** - **figure 3** and ***UdpListener.exe*** **figure 4**

log	2016.12.02 09:40	TXT File	10 KB
log4net.dll	2016.11.16 13:07	Application extens...	298 KB
log4net	2016.11.16 13:07	XML Document	1,498 KB
TcpListenerApp	2016.11.18 13:38	Application	12 KB
TcpListenerApp.exe	2016.12.02 09:25	XML Configuratio...	2 KB
TcpListenerApp.pdb	2016.11.18 13:38	PDB File	20 KB
Teltonika.Codec8.dll	2016.11.18 13:38	Application extens...	14 KB
Teltonika.Codec8.pdb	2016.11.18 13:38	PDB File	36 KB

Figure 4 Tcp listener

log4net.dll	2016.11.16 13:07	Application extens...	298 KB
log4net	2016.11.16 13:07	XML Document	1,498 KB
Teltonika.Codec8.dll	2016.11.18 13:43	Application extens...	14 KB
Teltonika.Codec8.pdb	2016.11.18 13:43	PDB File	36 KB
UdpListener	2016.11.18 11:58	XML Configuratio...	2 KB
UdpListener.exe	2016.11.18 13:43	Application	10 KB
UdpListener.pdb	2016.11.18 13:43	PDB File	16 KB

Figure 5 UDP listener

Before running TCP or UDP list **network configuration** has to be done. Please open „TcpListenerApp.exe.config“ and corresponding „UdpListener.config“ with „Notepad“ software, **Figure 6**.

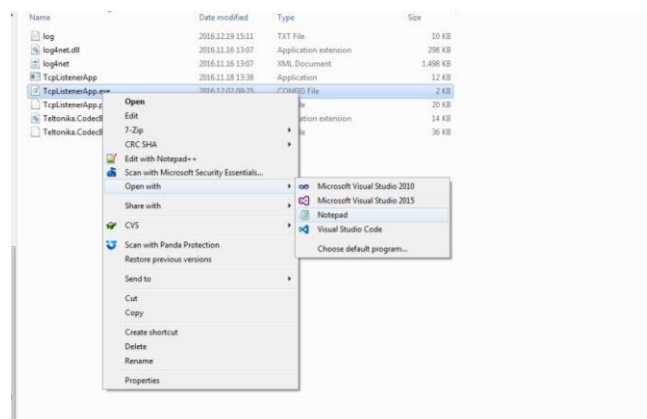
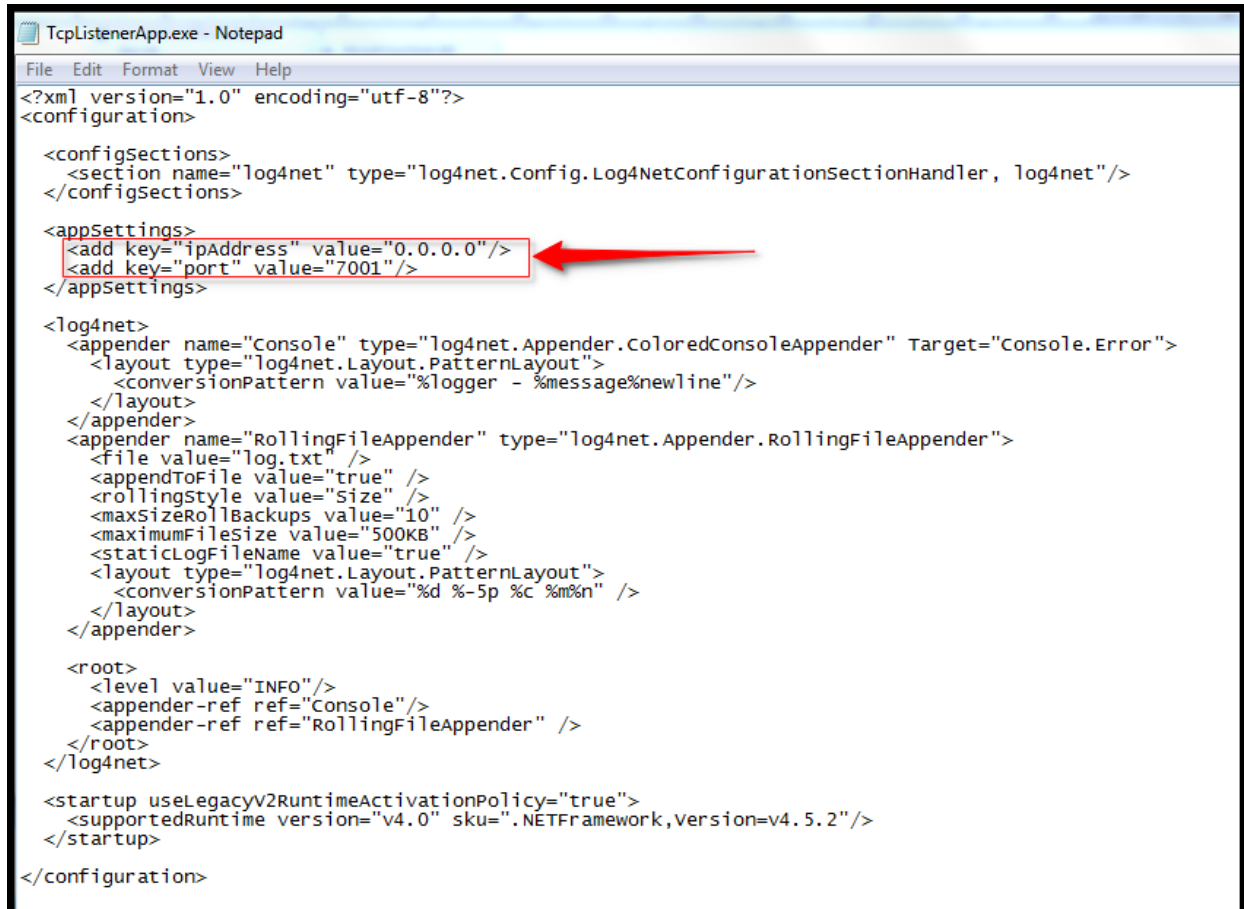


Figure 6 Network configuration file

In the opened window two parameters: „ipAddress“ and „port“ have to be changed. Port value need to be replaced with your opened port and IP value has to be left as 0.0.0.0 if You are not using multiple networks. Otherwise there You need to write Your IP address, **figure 7.**



```

<?xml version="1.0" encoding="utf-8"?>
<configuration>

  <configSections>
    <section name="log4net" type="log4net.Config.Log4NetConfigurationSectionHandler, log4net"/>
  </configSections>

  <appSettings>
    <add key="ipAddress" value="0.0.0.0"/>
    <add key="port" value="7001"/>
  </appSettings>

  <log4net>
    <appender name="Console" type="log4net.Appender.ColoredConsoleAppender" Target="Console.Error">
      <layout type="log4net.Layout.PatternLayout">
        <conversionPattern value="%logger - %message%newline"/>
      </layout>
    </appender>
    <appender name="RollingFileAppender" type="log4net.Appender.RollingFileAppender">
      <file value="log.txt" />
      <appendToFile value="true" />
      <rollingStyle value="Size" />
      <maxSizeRollBackups value="10" />
      <maximumFileSize value="500KB" />
      <staticLogFileName value="true" />
      <layout type="log4net.Layout.PatternLayout">
        <conversionPattern value="%d %-5p %c %m%n" />
      </layout>
    </appender>

    <root>
      <level value="INFO"/>
      <appender-ref ref="Console"/>
      <appender-ref ref="RollingFileAppender" />
    </root>
  </log4net>

  <startup useLegacyV2RuntimeActivationPolicy="true">
    <supportedRuntime version="v4.0" sku=".NETFramework,Version=v4.5.2"/>
  </startup>

</configuration>
  
```

Figure 7 Network configuration

After configuration is done run TCP or UDP listener to monitor the incoming data. The final result should look like in the **figure 8.**

Everything in the opened window will be also saved in to text file „log.txt“. You can easily copy packets data from txt.log and use it to parse in „Teltonika data parser“.