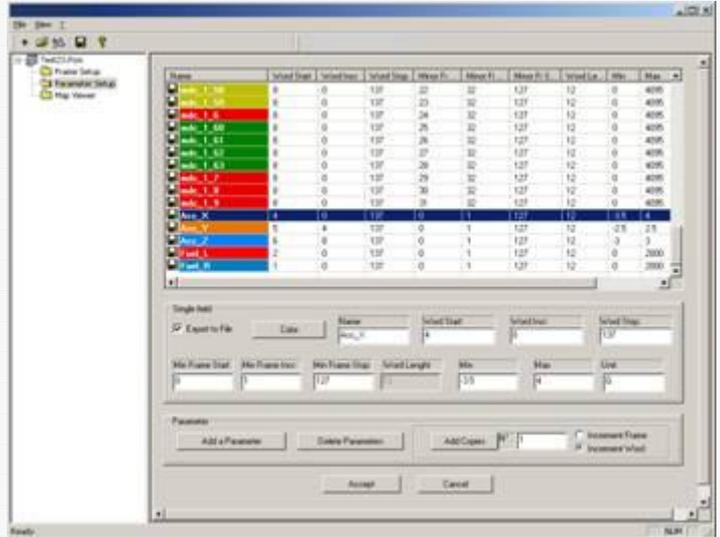


# GLE/PDSw PCM Decoding Software

Extension tool for **Heim-Systems FTrans** software: data decoding and parameters extraction from **DATARec-D<sup>®</sup>** recorders.

- Extension tool for the **Heim-Systems FTrans** package.
- Suitable for data decoding and parameters extraction from data acquired with **DATARec-D<sup>®</sup>** recorders.
- Extraction from PCM streams.
- Data storage in various formats: ASCII, binary and Famos..
- *Map Viewer* tool to easily visualize PCM map configuration.



## Overview

This software tool is an extension for the **Heim-Systems FTrans** package, supporting data decoding and parameters extraction from PCM streams (accomplished to the IRIG-106 standard) and other digital and avionic buses recorded with the Heim-Systems **DATARec<sup>®</sup>-D** family of recording devices.

**GLE/PDSw** allows to process files transferred to PC via FTrans and to extract an user's defined set of parameters from them.

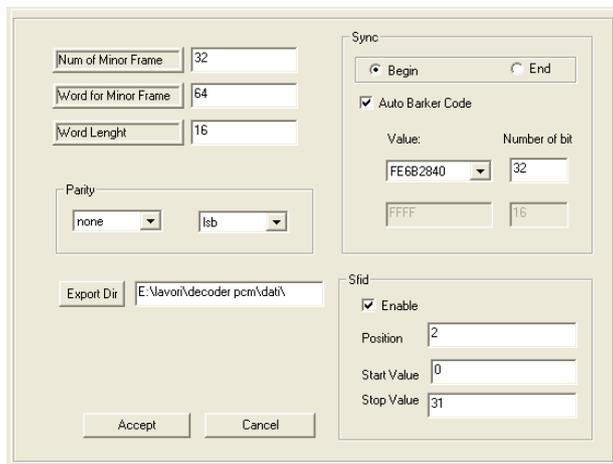
Selected parameters can then be saved in three different formats: ASCII, Binary or Famos. All the created files are in the XY form, time information and parameter information are saved as well.

It's possible to check the parity bit of the data, and if a single word is fault, a single sample is discard.

A complete data check is performed and in case of incoherent data setup are introduced, a report shows the mistake to the user.

The **GLE/PDSw** program (Irig-106 version) foresees three different sections, each of them easily accessible through a "tree structure" on the left side of the main window. The *Frame Setup* permits quickly define the PCM map properties, the *Parameter Setup* to select the parameters to be extracted and the *Map Viewer* is very useful tool able to summarize the whole program configuration.

More details are depicted in the following:



## Frame Setup

In this section the main characteristics of the IRIG-106 stream can be defined like the format frame, the word length, the sync words and SFID properties.

## Parameter Setup

The word selection and the main characteristics of the physical parameters to be extracted from the map can be set here. This section is mainly formed by a spreadsheet where each row corresponds to a selected channel with the properties describing its position inside the map. The addition of channels which differ only for the start word in the minor frame can be quickly done through the "Add Copies" button. Moreover it is possible to define on single-channel basis the raw data linear conversion in engineering unit.

## Map Viewer

This is a very useful tool that summarize the entire map structure and the inner parameters' position as defined in the previous sections. It looks like a common worksheet where the selected channels have different colors and can easily be identified through the zoom buttons.

	0	1	2	3	4	5	6	7	8	9	10	11	12
0 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_30	mdc_1_38	Acc_Y				Acc_Y
1 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_31	mdc_1_39	Acc_Y				Acc_Y
2 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_32	mdc_1_4	Acc_Y				Acc_Y
3 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_33	mdc_1_40	Acc_Y				Acc_Y
4 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_34	mdc_1_41	Acc_Y				Acc_Y
5 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_35	mdc_1_42	Acc_Y				Acc_Y
6 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_36	mdc_1_43	Acc_Y				Acc_Y
7 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_37	mdc_1_44	Acc_Y				Acc_Y
8 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_0	mdc_1_45	Acc_Y				Acc_Y
9 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_10	mdc_1_46	Acc_Y				Acc_Y
10 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_10	mdc_1_47	Acc_Y				Acc_Y
11 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_11	mdc_1_48	Acc_Y				Acc_Y
12 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_12	mdc_1_49	Acc_Y				Acc_Y
13 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_13	mdc_1_5	Acc_Y				Acc_Y
14 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_14	mdc_1_50	Acc_Y				Acc_Y
15 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_15	mdc_1_51	Acc_Y				Acc_Y
16 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_16	mdc_1_52	Acc_Y				Acc_Y
17 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_17	mdc_1_53	Acc_Y				Acc_Y
18 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_18	mdc_1_54	Acc_Y				Acc_Y
19 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_19	mdc_1_55	Acc_Y				Acc_Y
20 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_20	mdc_1_56	Acc_Y				Acc_Y
21 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_20	mdc_1_57	Acc_Y				Acc_Y
22 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_21	mdc_1_58	Acc_Y				Acc_Y
23 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_22	mdc_1_59	Acc_Y				Acc_Y
24 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_23	mdc_1_6	Acc_Y				Acc_Y
25 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_24	mdc_1_60	Acc_Y				Acc_Y
26 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_25	mdc_1_61	Acc_Y				Acc_Y
27 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_26	mdc_1_62	Acc_Y				Acc_Y
28 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_27	mdc_1_63	Acc_Y				Acc_Y
29 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_28	mdc_1_7	Acc_Y				Acc_Y
30 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_29	mdc_1_8	Acc_Y				Acc_Y
31 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_3	mdc_1_9	Acc_Y				Acc_Y
32 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_30	mdc_1_38	Acc_Y				Acc_Y
33 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_31	mdc_1_39	Acc_Y				Acc_Y
34 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_32	mdc_1_4	Acc_Y				Acc_Y
35 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_33	mdc_1_40	Acc_Y				Acc_Y
36 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_34	mdc_1_41	Acc_Y				Acc_Y
37 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_35	mdc_1_42	Acc_Y				Acc_Y
38 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_36	mdc_1_43	Acc_Y				Acc_Y
39 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_37	mdc_1_44	Acc_Y				Acc_Y
40 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_0	mdc_1_45	Acc_Y				Acc_Y
41 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_10	mdc_1_46	Acc_Y				Acc_Y
42 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_10	mdc_1_47	Acc_Y				Acc_Y
43 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_11	mdc_1_48	Acc_Y				Acc_Y
44 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_12	mdc_1_49	Acc_Y				Acc_Y
45 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_13	mdc_1_5	Acc_Y				Acc_Y
46 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_14	mdc_1_50	Acc_Y				Acc_Y
47 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_15	mdc_1_51	Acc_Y				Acc_Y
48 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_16	mdc_1_52	Acc_Y				Acc_Y
49 SFID	Fuel_R	Fuel_L		Acc_X	Acc_Y	Acc_Z	mdc_1_17	mdc_1_53	Acc_Y				Acc_Y

The extracted parameters on the base of any single channel, can be saved as ASCII, Binary or FAMOS files format with related Engineer Units, different file formats can be implemented on request and as well a lot of other eventual specific and useful features.

**Other extensions of this package are available for different digital and avionics buses recorded with the units of the DATaRec®-D family.**

**A demonstration version is available on request. Please send an email to [info@greenlake-eng.com](mailto:info@greenlake-eng.com) to receive more information.**

*Due to continuous developments specifications subject to change without prior notice*