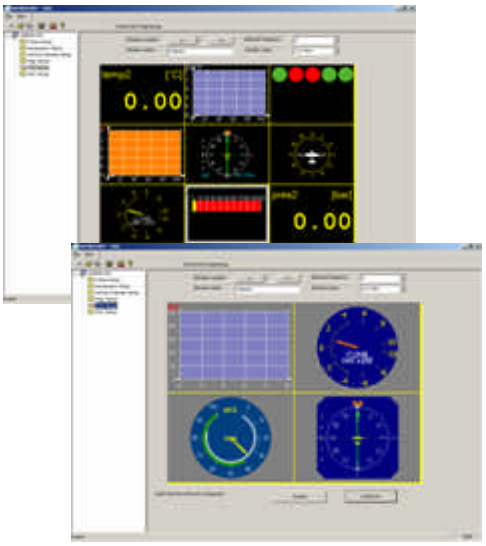
# GLE/QL-PCM Quick Look – Telemetry Software

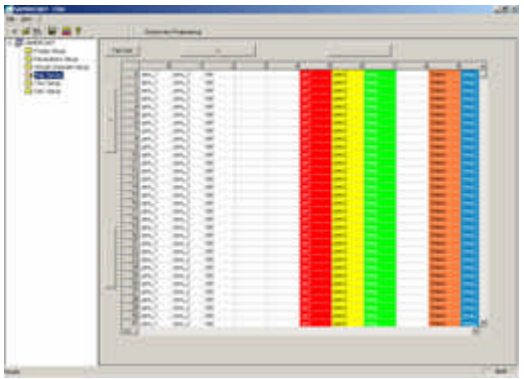


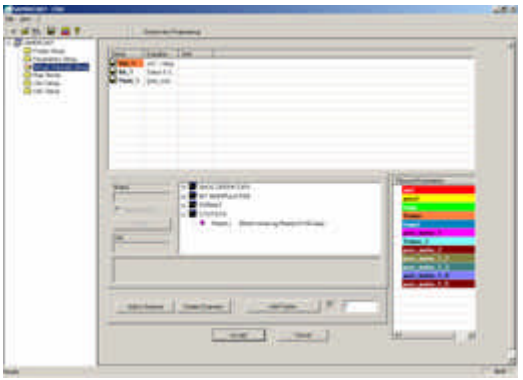
- Real time visualization for PCM data streams on customized graphic displays
- Various standard display types, including numeric, bar graph, angular gages and y-t can be freely configured by user.
- User-defined display pages can be easily defined and the configuration saved for further usages.
- Real-time data storage to file.
- Real-Time engineering units conversion.
- Equation editor to create “virtual” channels.
- CVSD voice format decoder.
- Easy interface for DAC output.
- MSWindows-based with user-friendly GUI

## Overview

GLE/QL-PCM is a powerful software package specifically designed for IRIG-106 PCM stream decommutation, measurement data extraction, real time data processing, virtual channels editor, numerical and graphical visualization and data storage.
Thanks to many available visualization options GLE/QL-PCM is the ideal platform for quick look of the acquired PCM data. Among the others, users can select numeric, bar graph, time history, air and standard gages and associate them to the extracted parameters or any other derived complex parameters created from decoded data through the math engine.
The latter comprises many of the most popular math functions, including algebraic, exp & log, trigonometric, statistical, bit handling and logic (L&R Shift, And..), format conversion (i.e. IntToFloat) built-in functions. Users can hence create nested formulas for specific calculation purposes.
The PCM frame set-up page enables the programming of the decommutator, defining the global map parameter, including the data rate, the major and minor frame dimension, the word length, the sync words and SFID properties.
Decoded parameters can be also save to file in real time in order to be recovered for post-processing purposes.
GLE/QL-PCM can decode also voice input according to the CVSD format and outputs decoded data through PC sound card, while up to output channels can be configured for DAC boards, when needed.

This software can be easily adapted for many of the most diffused telemetry decommutators for real time data display and storing



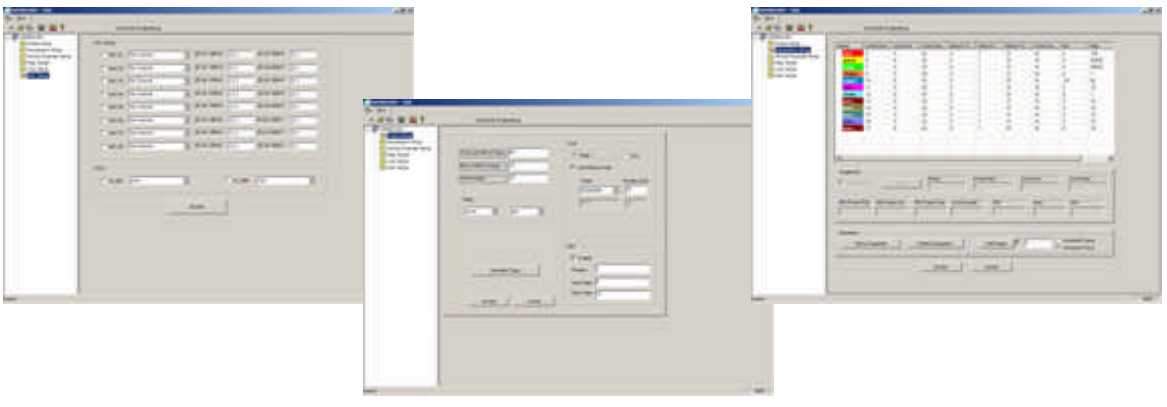


**Technical Specifications**

**GLE / QL-PCM** Quick Look Telemetry Software

| **GLE / QL-PCM** Quick Look Telemetry Software **is** composed by 6 major sections which easily drive the user in defining the full parameters selection setup and all the visualization options. | |
|---|---|
| *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 in this worksheet in a very user friendly environment. It is mainly formed by a spreadsheet where each row corresponds to a selected channel with all the related properties describing its position inside the map. The addition of channels which differ only for start word in the minor frame can be quickly done through the "Add Copies" button. Moreover it is possible to define on one-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 they can easily be identified through the zoom buttons. |
| *Virtual Channels Setup* | Besides physical channels, virtual channels obtained through calculations, can be added here to the list of the parameters to be displayed. The equation editor allows to create a formula just clicking on the needed physical channels from the list and selecting the desired operators. Nested formulas including both physical and virtual channels are also permitted. The available operations include algebraic, exp & log, trigonometric, statistical, bit handling and logic (L&R Shift, And..), format conversion (i.e. IntToFloat) built-in functions. Each parameter 's properties may be complete specifying the corresponding label and units. |
| *Visualization Setup* | Many different panels (parameters in alphanumeric format) can be defined choosing among different display formats (i.e. 5x3, 3x3, 2x2. meshed 3x3+2x2).<br>Available display include numeric, bar graph, standard, time history and air gages. Each of them can be customized in terms of background and foreground colors, scaling and font sizes.<br>For the numeric format the user can associate to each cell one parameter (physical or virtual) with a 6 digits visualization (sign + numbers), e.u. and label or graphics. On single channel basis, the number of decimal places (0, 1 or 2), the eventual average of the last N samples and upper and lower thresholds (to change the cell color background in alarm mode) can be set in this section. Upon the displayed page type the font size is automatically scaled, while the refresh rate can be choose by the user (>=0.2 sec). |
| *DAC Setup* | This section enables users to set up the analog output channels of an eventual DAC board. Each DAC channel can be associate to any of physical or virtual channels defined in the other sections. Output levels are in the ±5V range and it is possible to scale them to desired values in engineering units on a single-channel basis.<br>In this section is also possible to enable voice output selecting the PC sound board channel (L or R). |

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



GreenLake Engineering Srl
Via Acquanera 34/M 22100 COMO – Italy
ph: +39.031.525.391; fax: +39.031.589.269
info@greenlake-eng.com