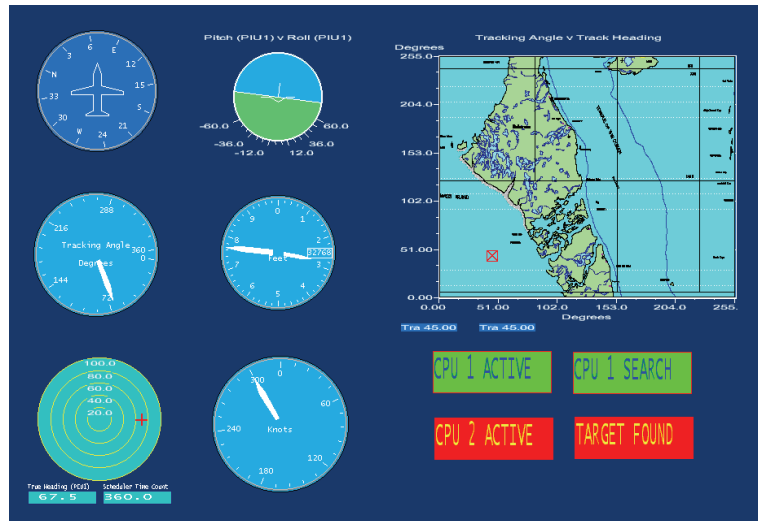


GDSmate Features:

- GDSmate is a real time Telemetry and Avionics data processing and visualisation software package which supports single stream portable applications through to Multiple Stream, Multiple CPU Server / Client networked Groundstation systems
- GDSmate provides complete control of Telemetry Hardware, parameter definition, PCM Decommutation, data processing, display archiving and file export functions
- GDSmate interfaces to the ApolloDas 8600 Modular PCM Encoder and Solid State Recorder units through a USB Port
- GDSmate can directly Control data replay from other Data Recorders via a SCSI Interface
- GDSmate can provide multiple PCM Stream Processing including Embedded Asynchronous data and non-IRIG formats
- GPS processing and Multiple Object Position presentation on digitised map displays
- GDSmate provides Mil-Std 1553 and ARINC 429 Bus Processing
- GDSmate provides Real Time Graphical and tabular displays with Pick, Place and Re-sizing of displays without requiring recompiling
- Archived data can be exported in several common file formats with time correlation across multiple datastreams



The screen display shown above presents some of the standard Apollotek GDSmate Icons.

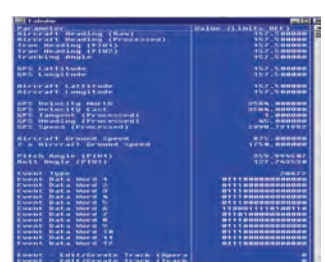
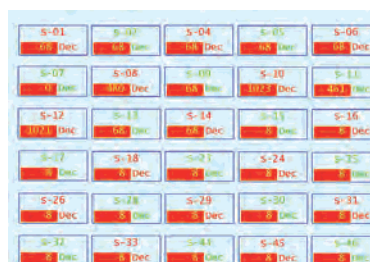
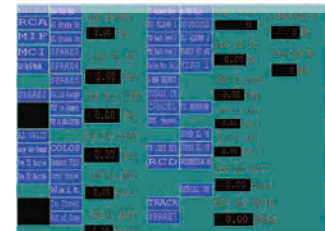
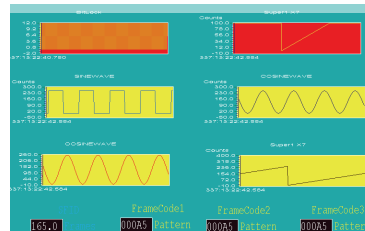
The Map Display provides an interactive latitude and longitude overlay of the position and classification of multiple objects.

Aircraft Cockpit type displays can be selected.

Many types of Digital, Analogue and Graphical display Icons can be selected.

Tabular display of parameters with colour change limit settings can be selected.

The displays shown below present a selection of typical graphical, tabular and digital Icons which can be user selected and manipulated to provide application specific information data displays



GDSmate Features

The GDSmate Parameter Database is developed interactively with the user through a Parameter Edit form. Each Parameter can be allocated a unique Mnemonic and Description.

GDSmate can process parameters from multiple data streams simultaneously

The Parameter editor can apply linearising and calibration coefficients to the Parameter. A secondary Maths Processor editor form is displayed if the Parameter type is declared as a Processed Type. The Maths processor provides the capability to incorporate other parameters into the processing algorithm.

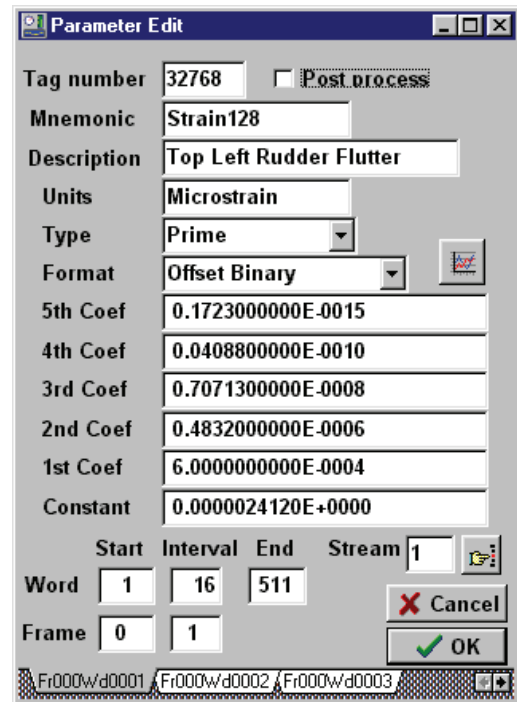
Mil-Std 1553 and ARINC 429 Avionics Bus data have similar parameter edit forms with the message identification replacing the PCM frame location definition.

A PCM Frame Format form is used to set up the characteristics of the frame and the synchronisation strategy. The PCM Bit Rate is set from this form as is the selection of the default time source which can be IRIG Time or Computer derived. Secondary Forms are presented for definition of variable word length formats.

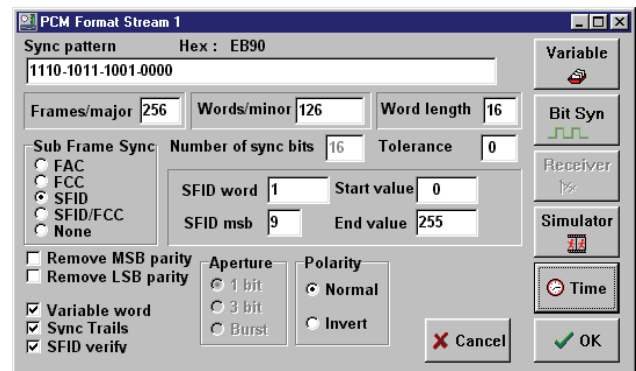
An Interactive colour keyed graphical presentation of the Frame Map for PCM or Message Map for Serial Bus data streams is provided. The user can point and click on a parameter in the frame map and get immediately to the Parameter Editor.

The Apollotek 8000 Series PC based Telemetry and Avionics signal recovery and data processing systems are supplied with the Multiple Stream version of the GDSmate package.

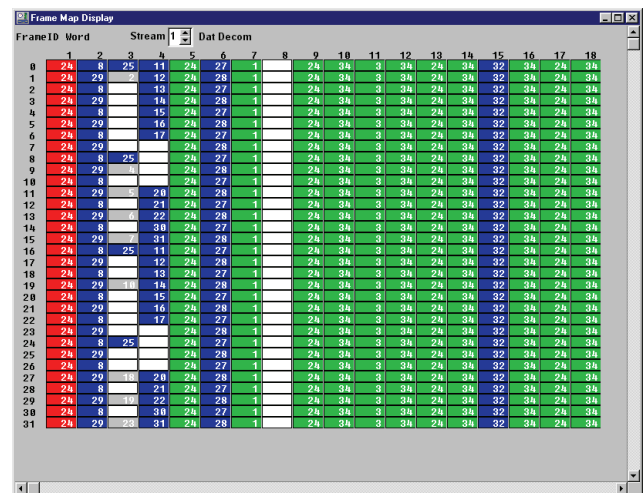
The Apollotek range of USB decommutation Products are supplied with the single stream single user version of GDSmate.



Parameter Edit dialog box showing fields for Tag number (32768), Mnemonic (Strain128), Description (Top Left Rudder Flutter), Units (Microstrain), Type (Prime), Format (Offset Binary), and various coefficients (5th to 1st) and Constant. It also includes Start, Interval, End, Stream, Word, and Frame settings, along with OK and Cancel buttons.



PCM Format Stream 1 dialog box showing Sync pattern (Hex: EB90), Frames/major (256), Words/minor (126), Word length (16), Sub Frame Sync (SFID), SFID word (1), Start value (0), SFID msb (9), End value (255), and options for Variable word, Sync Trails, and SFID verify. It also includes Aperture and Polarity settings, along with OK and Cancel buttons.



Frame Map Display window showing a grid of FrameID (0-31) versus Word (1-18). The grid contains numerical values representing frame data, with some cells highlighted in red and others in green. The window also shows Stream and Dat Decom settings.

FrameID	Word	Stream	Dat Decom															
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
0	24	8	25	11	24	27	1	24	24	3	24	24	32	24	24	24	24	24
1	24	29	12	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24
2	24	8	13	24	27	1	24	24	3	24	24	32	24	24	24	24	24	24
3	24	29	14	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24
4	24	8	15	24	27	1	24	24	3	24	24	32	24	24	24	24	24	24
5	24	29	16	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24
6	24	8	17	24	27	1	24	24	3	24	24	32	24	24	24	24	24	24
7	24	29	18	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24
8	24	8	25	24	27	1	24	24	3	24	24	32	24	24	24	24	24	24
9	24	29	19	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24
10	24	8	20	24	27	1	24	24	3	24	24	32	24	24	24	24	24	24
11	24	29	21	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24
12	24	8	22	24	27	1	24	24	3	24	24	32	24	24	24	24	24	24
13	24	29	23	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24
14	24	8	30	24	27	1	24	24	3	24	24	32	24	24	24	24	24	24
15	24	29	31	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24
16	24	8	25	11	24	27	1	24	24	3	24	24	32	24	24	24	24	24
17	24	29	12	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24
18	24	8	13	24	27	1	24	24	3	24	24	32	24	24	24	24	24	24
19	24	29	14	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24
20	24	8	15	24	27	1	24	24	3	24	24	32	24	24	24	24	24	24
21	24	29	16	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24
22	24	8	17	24	27	1	24	24	3	24	24	32	24	24	24	24	24	24
23	24	29	18	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24
24	24	8	25	24	27	1	24	24	3	24	24	32	24	24	24	24	24	24
25	24	29	26	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24
26	24	8	27	24	27	1	24	24	3	24	24	32	24	24	24	24	24	24
27	24	29	28	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24
28	24	8	21	24	27	1	24	24	3	24	24	32	24	24	24	24	24	24
29	24	29	22	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24
30	24	8	30	24	27	1	24	24	3	24	24	32	24	24	24	24	24	24
31	24	29	31	24	28	1	24	24	3	24	24	32	24	24	24	24	24	24