

Features:

- A range of configurable PC based Turnkey Groundstation Systems including Telemetry and Avionics signal recovery and data processing modules controlled by the generic Apollotek GDSmate Telemetry Environment software package
- Portable Configurations
- Ruggedised Configurations
- Systems can be provided in many configurations including Portable, Desktop, Rack Mounting and multiple Server and Workstations
- Compatible with Windows operating systems
- PCM Stream Processing
- PAM Stream Processing
- Mil-Std 1553 Bus Processing
- ARINC 429 Bus Processing
- Time Correlation between multiple data streams
- Real Time Graphical and tabular data displays are easily linked to raw and processed parameters without compiling
- Real Time Archiving to Disk
- High Speed Networking including Gigabit Ethernet
- Networked operation and TCP/IP remote control options
- BGAN Satellite interface option

Apollotek high performance Telemetry and Avionics Testing Groundstations are designed to be scalable across all Windows PC platforms.

Apollotek 8000 Series Systems can be configured to provide single or multiple PCM Stream processing with real time graphical and tabular parameter displays and with high speed recording and Replay capability. Standard system configurations are available to host a selection of Telemetry Receivers, Diversity Combiners, Bit Synchronisers, Decommutators and many types of I/O interfaces.

Networked Telemetry Groundstation with Data Recording to Solid State Disks and with Remote Control capability



Ruggedised Portable Laptop configurations



Ruggedised Portable Multiple Stream Groundstations

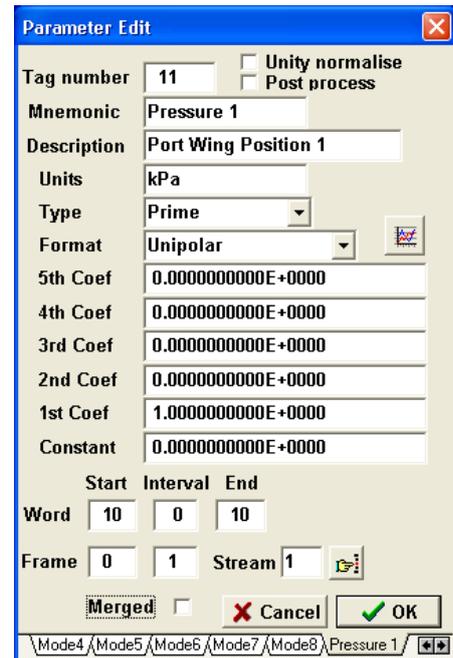


Apollotek USB range of Receivers, Bit Synchronisers and Decommutators

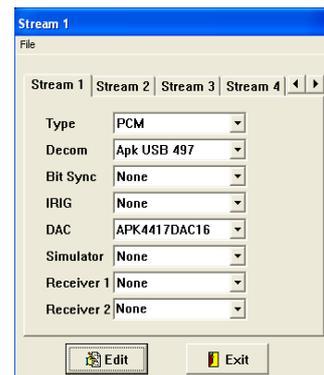


GDSmate Software

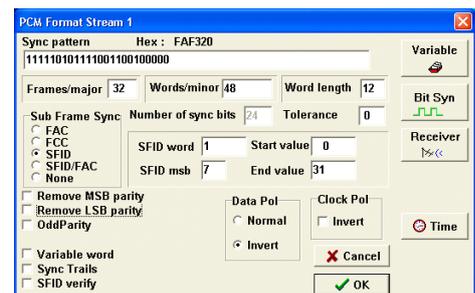
- The GDSmate Parameter Database is developed interactively with the user through a Parameter Edit form. Each Parameter can be allocated a unique Mnemonic and Description.
- The User can apply linearising and calibration coefficients to the Parameter. A Maths Processor editor form is displayed if the Parameter type is declared as a Processed Type. The Maths processor can also 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.
- GDSmate also supports direct ARINC and Mil-Std 1553 bus monitoring
- 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 or Computer derived. Secondary Forms are presented for definition of variable word length formats. The PCM Format Form can also set up an associated PCM Simulator.
- 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.
- Data can be exported in many common post processing file formats to facilitate further analysis including multiple stream time correlated and re-sampled formats



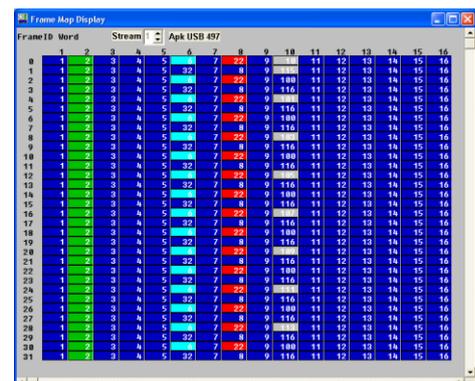
Parameter Edit dialog box showing fields for Tag number (11), Mnemonic (Pressure 1), Description (Port Wing Position 1), Units (kPa), Type (Prime), Format (Unipolar), and various coefficients (5th to 1st Coef, Constant). It also includes Start, Interval, End, Word, and Frame settings, along with Merged, Cancel, and OK buttons.



Stream 1 dialog box showing configuration options for Type (PCM), Decom (Apk USB 497), Bit Sync (None), IRIG (None), DAC (APK4417DAC16), Simulator (None), Receiver 1 (None), and Receiver 2 (None). It includes Edit and Exit buttons.



PCM Format Stream 1 dialog box showing Sync pattern (Hex: FAF320), Frames/major (32), Words/minor (48), Word length (12), Sub Frame Sync (SFID), Number of sync bits (24), Tolerance (0), SFID word (1), Start value (0), SFID msb (7), End value (31), and options for parity and clock source.



Frame Map Display dialog box showing a grid of data for Stream 1 (Apk USB 497). The grid displays FrameID, Word, and Stream values for 31 frames, with columns for words 1 through 16.

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