



Distributed Ground Station System Software

TTC GSS Advantages

The Ground Station System (GSS) is a very competitively-priced iNET-ready, data analysis, playback and archival application that can analyze streaming data in real-time over an Ethernet connection and fully supports IEEE-1588 time conversion and synchronization.

In the US, TTC products are installed in more than 85% of all manned aircraft and helicopters. Most of these installations are configured by TTCWare and verified by TTCVision.

GSS software gives TTC customers a tremendous advantage by integrating seamlessly with TTCWare and TTCVision. GSS imports TTCWare project databases and communicates with TTCWare and TTCVision using XML and TMATS. This eliminates duplicate data entry on several levels:

- The TTCWare avionics bus catalog is automatically imported to GSS with TTCWare projects.
- Any engineering unit conversions entered into TTCWare are automatically imported to GSS with TTCWare projects
- When used with a TTC Chapter 10 recorder, GSS can import Chapter 10 and all PCM stream TMATS.

Technical Description

The TTC Ground Station System (GSS) is a multi-platform, distributed data playback and analysis application. GSS software supports a client-server architecture that has a server, a streamer, and one or more clients.

The streamer may be connected to multiple live data sources including the RBDS-120, RMDS-300 and DBS-120 BitSync/Decommutators. Data can also be acquired directly over an Ethernet network from IRIG-106 Chapter 10 units including TTC AIM-200X and MUX-300X and from MnDAU-2000 network-based systems. The streamer can simultaneously record and multicast data to multiple clients.

PCs running the GSS client can display data on user-defined views with multiple display options. The GSS client also supports video data playback.

Any client on the network can play recorded data files from a hard drive, a STANAG4575 (LFS) drive or directly from TTC AIM-200X or MUX-300X products.

The GSS client has a comprehensive view management system for creating display widgets and organizing them on logical pages.

Engineering unit conversions, including polynomials, concatenations, derived calculations and external functions can be defined and applied to any and all measurements in the data stream. As a playback session unfolds, the system gathers statistical information about events within the data. These statistics can then be data-mined.



Chapter 10 Sample Data

Features

- Multi-platform data playback and analysis
- Compatible with the following TTC hardware:
 - ◊ DBS-120
 - ◊ RBDS-120 and RMDS-300 series
 - ◊ MnDAU-2000
- Distributed and scalable system
- Supports playback of IRIG-106
 - ◊ Chapter 4 (PCM)
 - ◊ Chapter 8 (1553)
 - ◊ Chapter 10
 - ◊ Network data
- Displays PCM data in real-time or from archived files
- Comprehensive view management system
- Displays parameters using
 - ◊ Strip charts
 - ◊ Dials
 - ◊ Bar graphs
 - ◊ Data lists
 - ◊ PCM grids
- H.26, MPEG-2, MPEG-4 and MJPEG-2000 video playback
- Automatically records all live data
- Performs EU conversions using polynomials, derived calculations and external customized functions