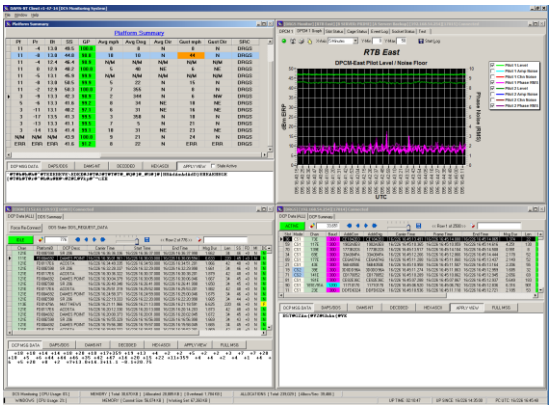
MICROCOM ENVIRONMENTAL

DAMS-NT Client

Data Acquisition and Monitoring Client Software for the GOES Data Collection System



Description:

The Microcom **DAMS-NT Client** is a highly versatile and configurable software tool that centralizes status monitoring, message ingest, and data processing for environmental information routed through NOAA's GOES Data Collection System. In addition to supporting monitoring of Microcom's satellite data reception systems, the **DAMS-NT Client** software enables users to ingest Data Collection Platform (DCP) messages from one or more network interfaces. Whether the source of the DCP messages is a Direct Readout Ground Station (DRGS), an LRIT/HRIT satellite receiver, the Internet, or any combination of the three, the **DAMS-NT Client** is a useful tool to consolidate all the major functions required of a DCS data acquisition and monitoring system.

Originally developed as a companion product to the Microcom DAMS-NT Server (the software program that monitors and configures Microcom's DRGS systems), the **DAMS-NT Client** has been expanded to support the three most common and widely used DCP message dissemination network protocols used by the DCS community. Further, the **DAMS-NT Client**, when coupled with the Microcom Decoder option, can provide a complete data acquisition system by providing message processing, reporting and/or database functionality.

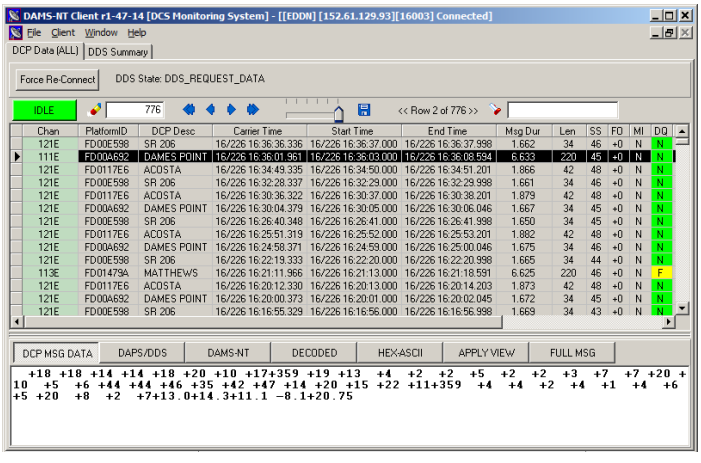
The Microcom Decoder option allows post processing of received messages to parse and decode sensor readings, and produce human-readable output in a variety of formats. The Decoder also supports engineering unit conversion and numeric formatting on received data, message time, and quality statistics.

The database option allows processed message data to be stored in an SQL compatible database. Database functionality provides long-term information storage and the ability to further support DCP management and monitoring of environmental data.

While the standard software package options are sufficient to meet most users' needs, Microcom can provide custom modifications to tailor the functionality to specific user requirements.

DAMS-NT Client Basic Features:

- **Supports multiple DCS network protocols:**
  - **DCS Data Service (DDS)**: Internet based protocol to receive DCS messages from major NOAA and USGS DRGS installations (WCDA, NSOF, EDDN).
  - **DAMS-NT DCP**: Common DCS message dissemination protocol supported by most DRGS systems. Also utilized by Microcom's LRIT/HRIT receiver with extensions to provide receiver status.
  - **DAMS-NT Event**: DRGS system status information protocol supported by most DRGS systems.
  - **DAMS-NT HiQ**: Microcom proprietary DCS message protocol that supports the Hi-Quality message statistics available from a Microcom DAMS-NT DRGS system for better platform performance monitoring.
  - **DAMS-NT Stat/Ctrl**: Microcom proprietary protocol to monitor and control a Microcom DAMS-NT DRGS system.
- **Data ingest from multiple Client connections:**
  - Seamless ingest from several clients for reliability and redundancy.
  - Number of client connections only limited by network and computer performance.
  - Source tagging on received messages.
  - Real time ingest; no post-processing latency.
  - Message ingest can be filtered by channel and/or platforms.
  - Live display of message data and message quality statistics.



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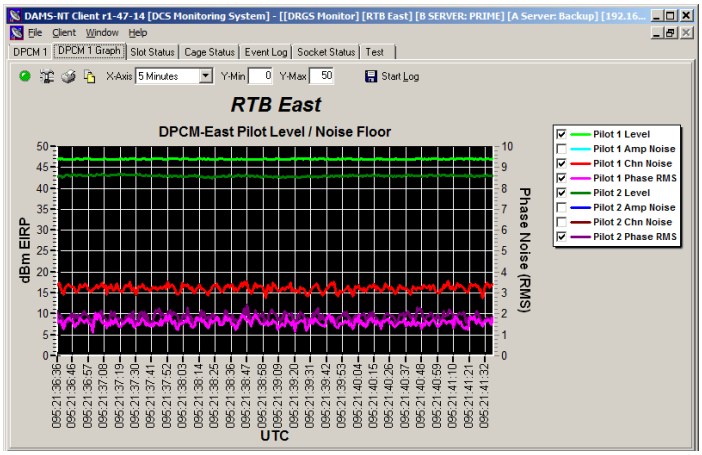
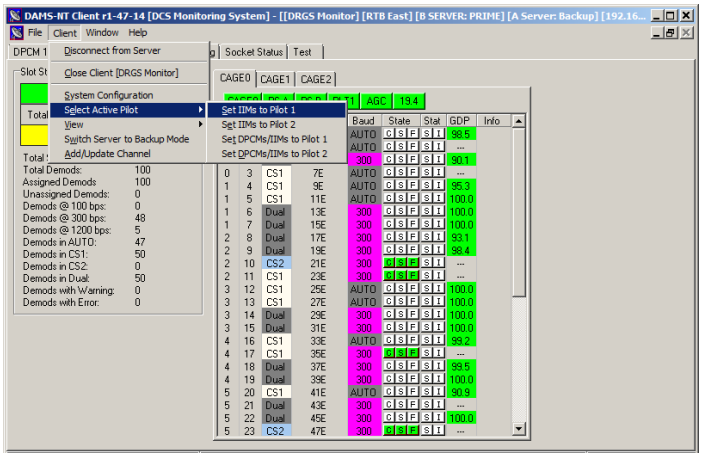
Software for Data Collection Systems

- **Microcom DRGS Status Monitoring:**
  - Equipment status and fault reporting.
  - Real time reception status, including carrier, symbol synch, and frame synch indicators; and quality reporting following message reception.
  - Pilot, power supply, and time source health.
  - Graphical presentation of DCS Pilot level over noise floor.

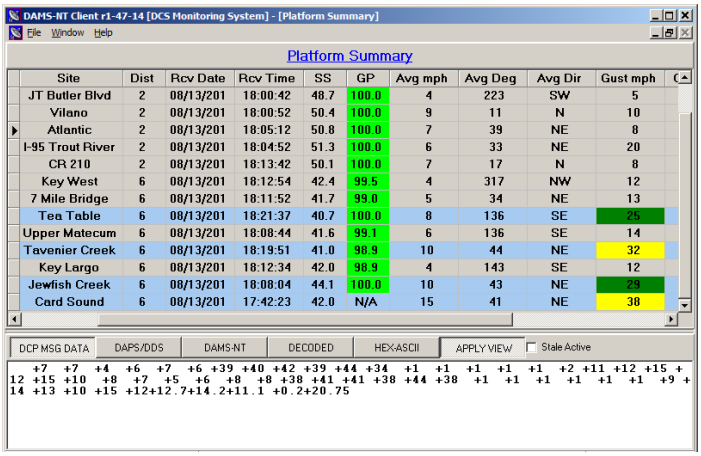


- **Microcom DRGS Control:**
  - Control Microcom DRGS from remote PC.
  - Change demodulator channel and baud configuration.
  - Select Prime/Backup server mode.
  - Set desired Active Pilot.



Optional Microcom Decoder Features:

- **Message Parsing, Decoding, and Processing:**
  - Received ASCII or Pseudo-Binary data parsed into individual sensor readings.
  - Sensor readings converted from raw format to engineering units.
  - Built-in engineering unit calculator allows changing displayed/reported units without altering DCP setup.
  - Message parameters (e.g. GOES ID, time stamps, etc.) and signal quality statistics (e.g. signal strength, frequency deviation, etc.) can also be processed and reported.
  - User editable decoding scripts.
- **Display, Reports, and Formatting:**
  - Decoded data can be formatted and viewed in DAMS-NT Server.
  - Message parameters, quality statistics, and sensor data can be custom formatted.
  - Multiple report files can be generated in a variety of formats.
  - User definable filenames and directory structure.
  - Decoded output can be dumped to optional database.
- **Platform Summary allows easier monitoring of most recent message from user's DCP network.**
  - Configurable grid summary; select the most critical data parameters and messages quality statistics.
  - Calculated values from received data.
  - User definable, color coded threshold levels for environmental parameters.
  - Display message date/time in UTC or by local time zone.
  - Grid exportable to HTML for simple website monitoring.



Additional Options:

- **Custom programming solutions.**
- **Installation, Setup and Training services.**

SQL Database Option:

- **Message parameters, signal quality statistics, and message data (raw and decoded) stored in user provided database.**