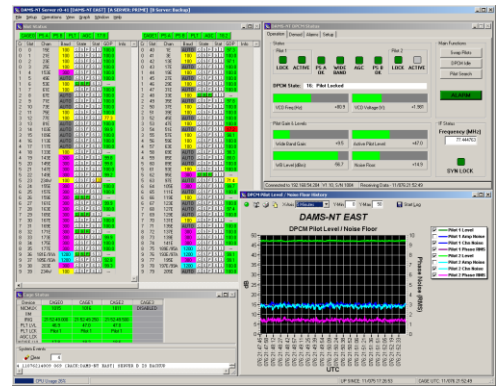


DAMS-NT Server

Data Acquisition and Monitoring Software for GOES, METEOSAT, and MTSAT Data Collection Systems



Description:

Microcom's DRGS systems with integrated **DAMS-NT Server** software enables small, medium, and large users to receive Data Collection System (DCS) messages directly from GOES, METEOSAT and MTSAT satellites. The **DAMS-NT Server** provides complete management of received satellite data from either a desktop *DigiTrakIV* or a rack-mount DAMS-NT *DigiTrak* Direct Readout Ground Station (DRGS).

Microcom has deployed this same technology at the US Government's three major DCS reception sites:

- NOAA's primary GOES receive site at the Wallops Command & Data Acquisition (WCDA) station at Wallops Island, Virginia.
- NOAA's backup GOES receive site at NOAA's Satellite Operations Facility (NSOF) in Suitland, Maryland.
- The USGS's Emergency Data Distribution Network (EDDN) located at the Earth Resources Observation Systems (EROS) Data Center in Sioux Falls, South Dakota.

Both the desktop and rack-mount DRGS systems offer complete solutions including: receive antenna, dual pilot control module, GPS time source, and *DigiTrak* demodulators. The **DAMS-NT Server** software completes the end-to-end system. A desktop *DigiTrakIV* DRGS can support up to 16 channels, while a rack-mount DAMS-NT system can have up to 160 channels.

Basic functionality includes system setup, status monitoring, data ingest, message monitoring, message distribution and Data Collection Platform (DCP) management. Optional components can be ordered to add message processing and/or database functionality, decoding and reporting.

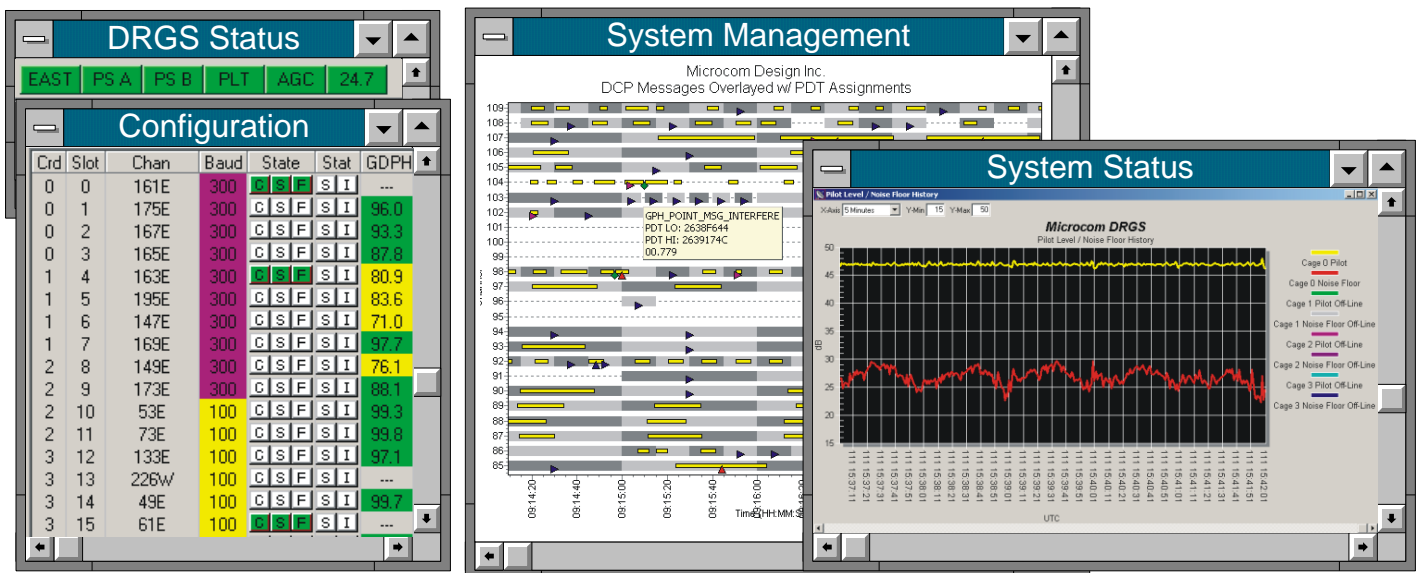
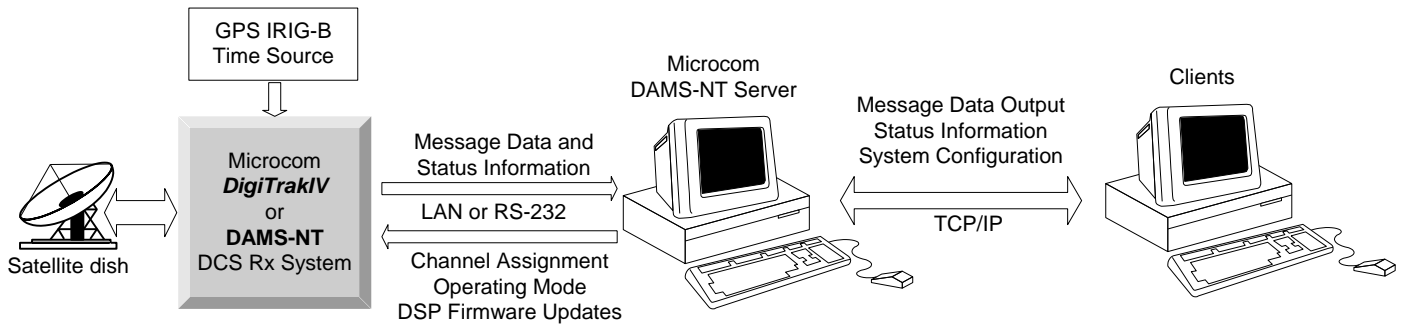
The Microcom Decoder option allows post processing of received messages to parse and decode sensor readings, and produce human-readable output in a variety of formats. The Decoder also supports engineering unit conversion and numeric formatting on both received data and message time and quality statistics.

The database option is available with either a Microsoft Access or Microsoft SQL database. Database functionality

adds DCP management and a host of platform related graphical functions.

DAMS-NT Server Basic Features:

- **System Setup:**
 - Graphical configuration of *DigiTrak* demods.
 - Selectable message rate 100, 300, 1200 or Auto 100/300 bps.
 - Complete channel coverage.
 - Dual Pilot Control Module configuration.
 - Single or Dual (redundant) Server operation.
- **Status:**
 - Real time reception status of each *DigiTrak*.
 - Carrier, symbol synch, and frame synch indicators.
 - Message quality after end of message.
 - Pilot, power supply, and time source health.
 - Graphical presentation of DCS system status.
 - Live channel activity map with transmitted DCP EIRP level over noise floor.
 - Live Pilot level over noise floor.
- **Data Ingest:**
 - Seamless ingest from all *DigiTrak* demods.
 - Real time reception, no post-processing latency.
 - Messages can be received with only 0.25 second separation.
 - Message time stamping to the millisecond.
- **Message Monitoring:**
 - Live display of message data.
 - View messages by channel or view all messages received
 - User definable FIFO queue depths allow a quick view of data back in time.
 - View just message information and message quality statistics summary, or ...
 - View all message data and performance parameters; including parity errors and prohibited characters in ASCII and/or HEX.
 - Automatic DCP address error detection and correction.
- **Data Output:**
 - Distribute data via multiple methods.
 - Dump data and quality statistics to files.
 - Real time message distribution via TCP/IP socket connection per the NOAA DAMS-NT Interface.
 - Real time message and complete quality statistic distribution via Microcom's proprietary high quality (HIQ) TCP/IP socket connection.



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.
 - Decoded data included in Microcom HIQ TCP/IP distribution.
 - 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.

Access or SQL Database Option Features:

- **Tools to Manage DCP's:**
 - Adds GUI interface to view and edit user and platform information.
 - Graphical view of platform channel time windows overlaid with real-time or recalled DCP time data.
 - ◊ Messages outside defined windows.
 - ◊ Wrong window and/or channel.
 - ◊ Incomplete platform definition or missing message.
 - ◊ DCP address or message data errors.
 - ◊ Message spacing (close to interferer)
 - Graphical map of DCP's location using Lat/Long.
 - Ability to forward platform updates to NOAA/NESDIS.
- **Additional Message Processing Functions:**
 - Extends message filtering to view selected DCP's.
 - Message parameters, signal quality statistics, and message data (raw and decoded) stored in database.
 - Database referenced decoding scripts.

Additional Options:

- Custom programming solutions.
- DAMS-NT Clients for remote monitoring.
- Installation, Setup and Training services.