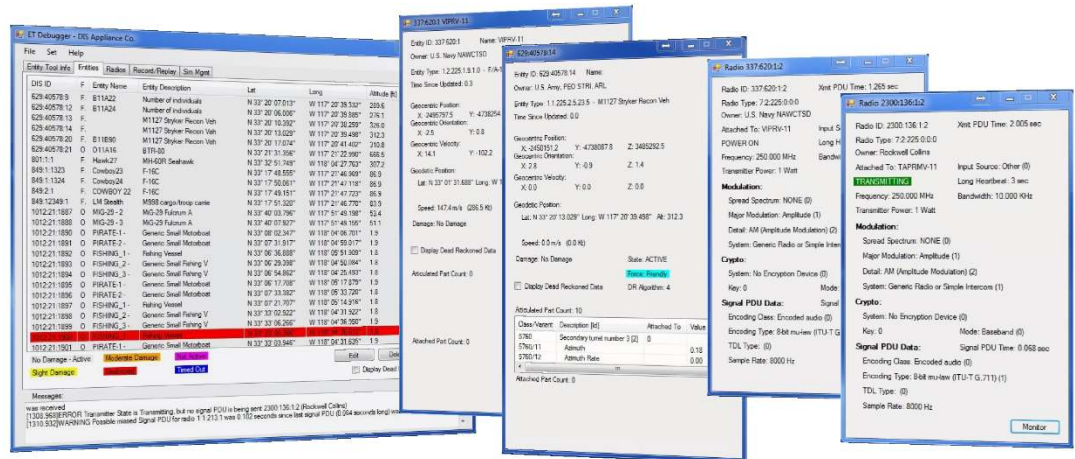


# DIS Protocol Analyzer™



## DIS 8 READY!

DIS Protocol Analyzer can both generate and analyze DIS 8 Packets. A valuable tool for the implementation and testing of the new standard and second-generation legacy DIS 5 - 7 versions. Automatically adjusts depending on the version of PDU received.

## PDU DESIGNER

Create any version of PDU's with the PDU Designer. Allows the user to fill in all the values contained within a PDU and show the byte representation of the packet to be sent. User can override the packet data providing an excellent method for injecting errors into the packet for verification of error handling by the simulation.

## SYSTEM PERFORMANCE

In addition to acting as a diagnostic tool for engineers, DIS Protocol Analyzer can be used to assess the performance of embedded systems that require hard or soft real-time execution with rigid time constraints. It extracts run-time information from the embedded systems and ensures that time-sensitive processes and procedures are functioning correctly.

With different DIS Protocol Versions being used by multiple participants on the network across multiple training sites, an analysis tool is critical to allow operators to monitor what is happening on the network and to quickly identify any areas where the protocol standards and the parameters defined in the exercise agreement are not being adhered to. The **DIS Protocol Analyzer** does this and much more. It provides an effective and efficient solution to assess and analyze DIS operations, from initially integrating a simulator to continuously monitoring an entire DIS network in real-time.

## Validation Tool for all Phases of an Exercise

The DIS Protocol Analyzer is a tool that can be used in all phases of an exercise. It can be used during exercise planning to define the allowable parameters for the mission, prior to the mission to provide verification that a simulator is ready to participate in the exercise, when starting the exercise to troubleshoot network connectivity issues, during the exercise to notify the user when the parameters defined in the exercise definition is not being followed, and in post-exercise analysis.

## DIS PROTOCOL ANALYZER

### Key Features:

#### Non-Intrusive Monitoring of the Network

When monitoring the network, our **DIS Protocol Analyzer** is designed to be a non-intrusive monitor of the network. It monitors the network and provides the user with a method to ensure data is flowing through the network without interfering with network operations. However, it does have the capability to publish entities for purpose of testing and troubleshooting.

#### Simulator Network Management

DIS Appliance Co's **DIS Protocol Analyzer** contains DIS Network Management tools that allow the user to define the Sites and the Applications that are associated with those sites on the network. This definition is included in any logged data so that when an error is logged, the user can quickly identify which participant on the network is publishing the entity or erroneous data.

## ENTITY TYPE LOOKUP

Find a given entity type in seconds. There are over 16,000 SISO Enumerations entity type descriptions. When viewing entity data, the entity type description is automatically displayed. If a received entity is not defined, a roll-up is performed to provide the closest approximation of the model.

## METRIC REPORTING

Report on all Entity types and identification of DIS PDUs being used within the mission. Network Usage/Availability can be generated keeping operational users abreast of what is happening on the network. Additionally, reports detailing those that participated in the exercise are available.

## Entity Mapping

When internet connection is available, any entity can be displayed using public mapping software such as Google Maps or ESRI ArcGIS, allowing the user to easily check position and orientation data without using a visual system.

## DEMO READY

Contact DIS Appliance Co. to setup a demonstration of our **DIS Protocol Analyzer**.

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505-890-8356  
www.disapplco.com

## Error Checking

Every DIS PDU received is checked against the applicable DIS Standard (SISO-REF-010), including every enumeration contained within the packet. Additionally, as the SISO Enumerations standard changes, the software automatically adjusts to the new standard. If a particular enumeration does not match what is in the SISO Enumerations document, it is logged as a potential error for the user to review. Additionally, numeric values are checked for validity. Invalid numbers, such as NaN's are identified.

In many cases, the Error Checking identifies issues before a problem is identified. Problems that in the past could take hours, days, or even weeks to identify are reported to the user in real-time. This includes identifying entities that are being published by users that should not be publishing them, or users publishing duplicate entities and identifies the specific user generating the error.

## Easy to Read and Understand Format

All data is displayed in an easy-to-read format that allows the user to quickly view their status. Double-click on the data in question and a window is displayed with detailed data. These windows not only display the data as it's coming through in the packet, but also explain any enumerations in plain English by providing the description contained in the SISO-REF-010. Additionally, our tool provides timing information for the packets and displays data in more user relatable terms such as the latitude, longitude, and altitude of the entity, instead of just the Earth Centered Earth Fixed (ECEF) Coordinates.

## Deep Dive into Data

From the initial screen, which shows all entities and radios, users can show detailed information for the entity or radio. Beyond the detailed data, packets can be examined at the packet level for every byte of the PDU creating that data. All entities being generated on the network can be examined including those generated by various Computer-Generated Forces (CGF) software packages.

## Record/Replay

Ability to Record and playback DIS Traffic providing the user with a method to replicate problems for troubleshooting. This data can also be filtered so that only certain data is played back.

## Entity Generation

Allows the user to create any type of entity anywhere in a simulated environment for visual verification. The user can change the appearance attributes (such as lights, damage states, etc.) on the fly. A simplified Entity Type Lookup utility allows the user to specify over 23,000 entity types described in the SISO Enumerations document.

## Expanding Capabilities

Our Analyzer tool is continuously being updated with new features and error detections. First year updates following purchase are included. After this point, the DIS Protocol Analyzer continues to operate with the last downloaded version. Additional updates /support is available through a maintenance agreement.

## System Requirements

The DIS Protocol Analyzer is designed to operate on Windows 10 operating system. Turnkey Option available that provides laptop pre-installed with software, third-party radio software and carbon fiber Dalcomm headset.

**DISApplianceCo.**