

Windows Improved Data Modem (WinIDM™)

VMF/MIL-STD-188-220 B/C/D Change 1, AFAPD, TACFIRE

WinIDM™ Summary

Aeronix has developed the official F-35 Joint Strike Fighter (JSF) MIL-STD-188-220 D Change Notice 1 Protocol Stack. The same code that flies in the JSF is now available on Microsoft Windows platforms under the moniker **WinIDM™**. The WinIDM™ application provides a software-only implementation of the JSF VMF TDL, as well as providing legacy support for MIL-STD-188-220 B/C, AFAPD, and TACFIRE data links. The Protocol Stack was tested against over 1200 requirements directly from the MIL-STD. Also included in WinIDM™ is the first fielded implementation of MIL-STD-2045-47001 D Change Notice 1 Segmentation / Reassembly Basic Protocol. This protocol works seamlessly with K04.17 as well as providing independent image transfer capability.

Combined with the U-ROC™ (which connects WinIDM to a radio), a **complete TDL solution is available for your laptop or hand-held computer**. In addition, the same WinIDM can be connected to NetSim™, a software emulation of a TDL environment, where all message traffic can be observed, tested and analyzed before deployment.

WinIDM: Tactical, Official, Standards-Compliant, Interoperable, and runs on a PC.

WinIDM Technical Notes

Protocols Supported:

- ◆ MIL-STD-188-220B/C
- ◆ MIL-STD-188-220D Ch1 (JSF)
- ◆ MIL-STD-2045-47001D Ch1
- ◆ MIL-STD-6017 (VMF) with VIP™
- ◆ AFAPD
- ◆ TACFIRE

Windows Application:

- ◆ Can be run as a separate Windows application, or embedded into an existing application via 'C'-style library
- ◆ Portable to any POSIX-compliant Operating system

Uses:

- ◆ Digitally-Aided Close Air Support
- ◆ Standards-Compliant Digital Transmission Interoperability
- ◆ Situational Awareness, Tactical Internet
- ◆ TACP, JTAC
- ◆ Man-Pack communications
- ◆ Testing and Analysis

Interoperability:

- ◆ F-35 JSF
- ◆ F/A-18
- ◆ F-16 (including 'Skunk Works' VMF)
- ◆ TACP-CASS Dashboard



Shown at left:

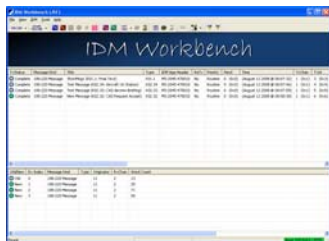
- TACP Dashboard
- WinIDM
- U-ROC
- PRC-117 Radio

Interoperable!

IDM Overview

In 2001, Aeronix partnered with   Symetrics Industries to develop the Improved Data Modem (IDM) 501/IDM Junior™, VPIDM, and Mini IDM suite of Tactical Data Link (TDL) products. This IDM family has grown to include the Weapons Data Link IDM (WDL IDM), and now, the U-ROC and WinIDM, providing a USB and Software solution to the TDL community.

Our IDMs are integrated and deployed in a variety of military platforms worldwide. Through this partnership, Aeronix has taken an active leadership role in the Combat Net Radio Working Group (CNRWG) to ensure interoperability of your MIL-STD-188-220/MIL-STD-2045-47001-based Tactical Data Link (TDL).

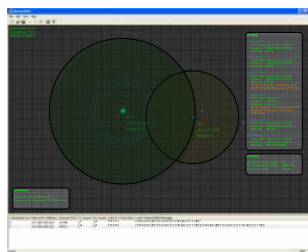


IDM Workbench™

Easily configure all IDMs including U-ROC and WinIDM. Start testing your TDL now with Built-In VIP Parsing!

NetSim™

Connect WinIDM to NetSim. Watch transmissions as they occur. Look for collisions, errors, and messages fully decoded.



Related Technologies

U-ROC™

The Symetrics USB Radio Operations Cable (U-ROC™) is designed to allow personal commuters, ruggedized laptops, and personal digital assistants (PDAs) to interface to any radio in the field today, the U-ROC™ combines the radio interface capability of the Improved Data Modem (IDM) with the accessibility of the USB standard. The U-ROC™ provides customers with a low-cost, low-power solution ideal for integration into ground kits and laboratory testing environments. By providing two separate radio data interfaces, complete with remote control ports for the radios, combined with Modular Radio Connectors, programs save on non-recurring design and integration costs, recurring maintenance and logistics costs, and depot and spares costs.

NetSim™

The NetSim™ application provides a software simulation of a Combat Net Radio network. Individual instances of the WinIDM™ application can be connected to the network representing any number of platforms. NetSim™ allows for simulating noisy networks, configuring the range of each participant's radio, and is easily extensible for modeling radio timing and automation of participant behavior.



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