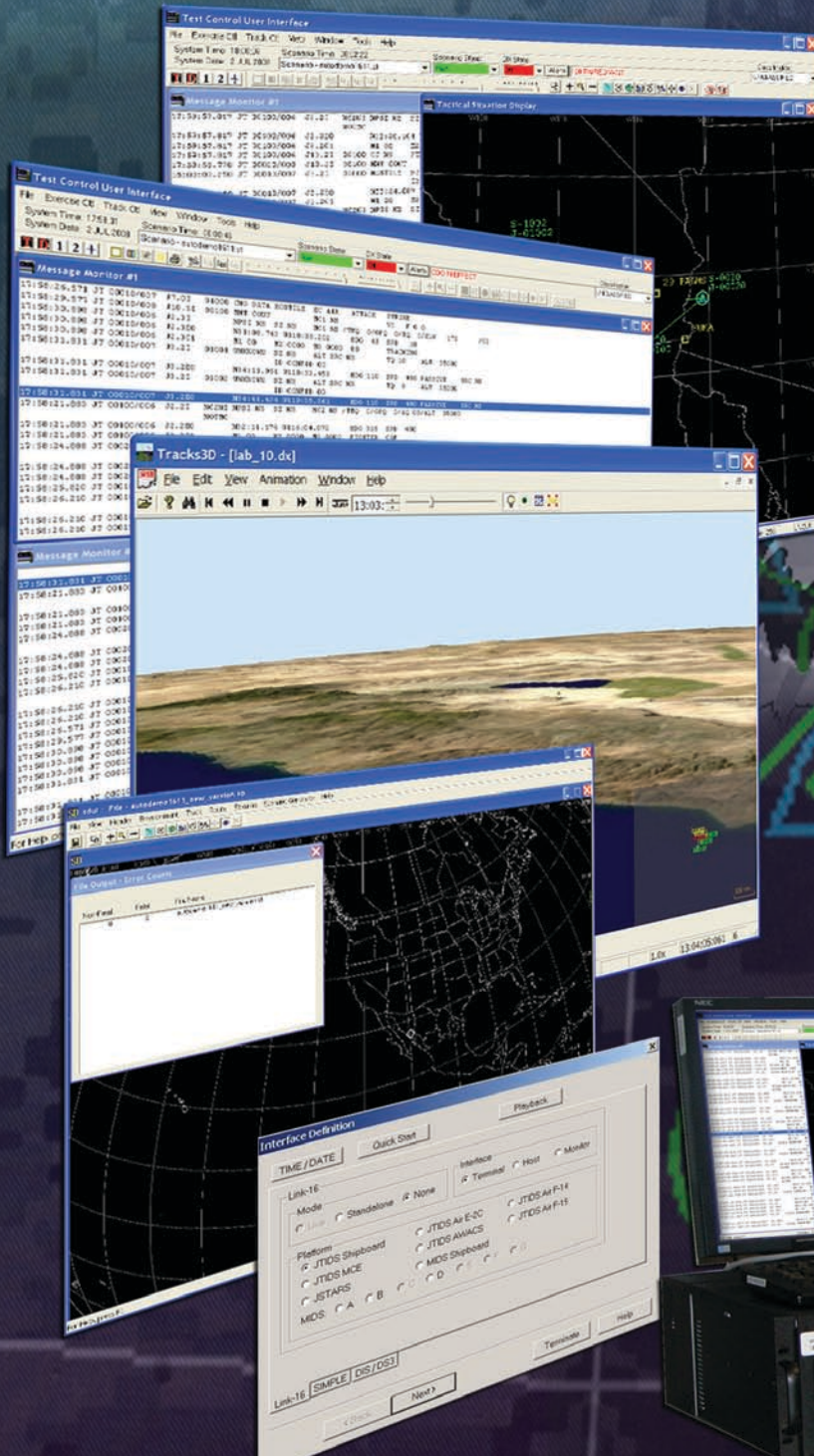


▼ Tactical Data Link Integration Exerciser

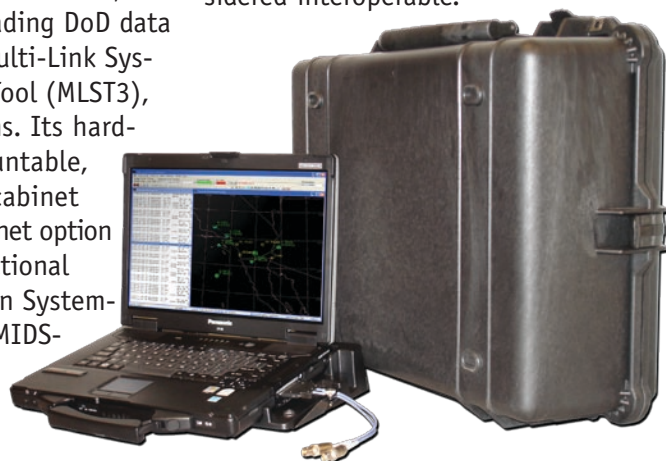


The Proven Standard for Tactical Data Link Testing and Training

The Tactical Data Link Integration Exerciser (TIGER) stimulates systems under test with tactical scenarios.

- Link 16
- Link 11
- Link 22
- Distributed Interactive Simulation (DIS)
- Joint Range Extension Applications Protocol (JREAP) C
- SIMPLE (STANAG 5602)
- and more

Developed by Northrop Grumman, TIGER is based on the leading DoD data link test system, the Multi-Link System Test and Training Tool (MLST3), and predecessor systems. Its hardware includes rack mountable, portable, laptop, and cabinet configurations. The cabinet option can include a Multifunctional Information Distribution System-Low Volume Terminal (MIDS-LVT) and a remote power supply.



TIGER hardware configurations are available in laptop, portable, desktop, rack-mountable and cabinet.

Using a powerful battlespace simulator and a flexible array of analysis capabilities, TIGER is a proven interoperability test system used worldwide.

How It Works

TIGER generates tactical data link messages and outputs them as a complete tactical exercise scenario to the system under test. It then receives and interactively processes and displays the output of the system under test. If the interactions comply with appropriate specifications, the system under test is considered interoperable.

The TIGER software suite supplies Pre-Test, Real-Time, and Post-Test Analysis applications.

Pre-Test Application

Analysts use the TIGER scenario developer program to script reusable scenarios for real-time testing. The scenario files contain complete environments of tactical exercises. Among TIGER's capabilities is the ability to simulate many tracks:

- Link 11A participating units (PU)
- Link 11B reporting units (RU)
- Link 22 NILE units (NU)
- Link 16 units (JU)

Scripted analysis report files present logical information about the exercise scenario, viewed from aspects such as time, track history and errors. The graphic user interface simplifies exercise development by enabling users to create tracks manually.

User Friendly Windows™ Interface

The TIGER Test Control User Interface (TCUI) features a conventional Windows™ interface. Operators use dynamic, menu-selectable displays to perform testing.

Time-Tagged Tactical Messages

The Message Monitor display transmits and receives tactical messages and scenario and operator-initiated events in data extraction reduction guide (DERG) and Northrop Grumman proprietary format. Data is time-tagged to one millisecond and displayed in human-readable format.

Filterable Track Symbology

The Tactical Situation display depicts filterable track symbology with back-

ground geopolitical maps scalable from global to one square mile. The associated Data Readout window displays link and simulation attributes for any track.

Real-Time Tests and Analysis

On-line interaction gives users the flexibility to conduct ad hoc tests and analyze system performance in real time. Wrap-around tests support platform integration using a coordinated data link and sensor environment with DIS protocols. An on-line help capability contains information about every function.

System Architecture Functionality

TIGER interfaces with tactical data systems over MIL-STD-1553B or Ethernet interfaces for Link 16 and MIL-STD-1397A and Airborne Tactical Data Systems (ATDS) for Link 11. TIGER communicates on JREAP C and SIMPLE via Ethernet connections. The system interfaces with a DIS over separate Ethernet via protocol data units. A separate Ethernet LAN is provided for additional workstations.

TIGER can interface on Link 22 with a unit under test in a variety of ways, including live-link RF, media simulation interface and as a Link 22 communications equipment simulator TIGER at a glance.

TIGER Product Features

Parameter	Capacity
Commands	86
Handovers	86
EW Coordination	86
Change Data Orders	32
ID Differences	32
Pairings (6 Max per Track)	128
Associations	128
Engagements (6 Max per Track)	128
Correlations	128
IFF/SIF Management	32
Pointers	5
Link 22 Message Streams	100
Link 16 Message Streams	100
Link 11 Message Stream Sequences	20
Background Tracks for Link 16, Link 11, and Link 22	4,100
Mission Assignments	32
Vectors	32
Controlling Unit Changes	32
Simulation/Local Link Tracks	2,400
Remote Link Tracks	2,400
Waypoints	400
Groups of up to 40 Action Tracks	10
Anti-Submarine Warfare Contacts	24
Training Tracks	
Link 16	256
Link 11	128
Link 11 PUs, RUs, FPU (one E-3)	64
Link 16 C2 JUs, IUs	100
Link 16 non-C2 JUs	100
Link 22 NILE Units (NUs)	65
Link Simulation (Terminal Mode)	
Two-Way Aircraft	16
One-Way Aircraft	16
Downlink Targets	384
Uplink Tracks to Each	16
TACAN Points	10

Capability	H/W I/F	TIGER	TIGER w/ Link 22	TIGER Portable	TIGER Laptop
Link 11A	NTDS/ATDS	X	X	X	
Link 16 MIDS		X	X	X	X
Platform A	1553B	X	X	X	X
Platform B	1553B	X	X	X	X
Platform D	Ethernet	X	X	X	X
Platform G	1553B	X	X	X	X
Platform I	1553B	X	X	X	X
Platform J	Ethernet	X	X	X	X
Platform M	Ethernet	X	X	X	X
(MIDS on Ship)					
JTRS A	1553B	X	X	X	X
Link 16 JTIDS	1553B	X	X	X	X
USN Class 2 Air	1553B	X	X	X	X
USN Class 2 Ship	1553B	X	X	X	X
F15	1553B	X	X	X	X
MCE	1553B	X	X	X	X
JSTARS	1553B	X	X	X	X
Link 22	Ethernet		X		
SWIF	Ethernet	X	X	X	X
TIF	1553B		X	X	X
DIS	Ethernet	X	X	X	X
SIMPLE	Ethernet	X	X	X	X
SIMPLE Sync	Sync Serial	X			
SIMPLE Async	RS232	X	X	X	
JREAP C	Ethernet	X	X	X	X
Time Reference	IRIG B		X		

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