



# DLT Data Link Translator



RSI's Data Link Translator (DLT) is an off-the-shelf PC based tactical data link translator/forwarder system supporting allied armed forces around the world. DLT is highly configurable by utilizing RSI's Operational Core user interface package and then layering multiple radar and tactical data link translation interfaces from RSI's Interface Package Library (IPL). New customer application-specific requirements are easily accommodated.

Redondo Systems Incorporated (RSI) has been a leading provider of products and services in the areas of tactical data link and radar interface processing for over 20 years. RSI's product lines include fielded tactical data link and radar communications systems, radar and data link simulation systems, as well as stand-alone software packages and custom hardware solutions. RSI's major customers include:

- ◆ U.S. Army
- ◆ U.S. Air Force
- ◆ U.S. Navy
- ◆ U.S. Marine Corps
- ◆ Raytheon
- ◆ Northrop Grumman
- ◆ Lockheed Martin
- ◆ Rockwell Collins
- ◆ Thomson CSF
- ◆ EADS
- ◆ BAE
- ◆ SAIC



## DLT Translation/Forwarding Capabilities Include:

### ◆ Data Links

<ul style="list-style-type: none"> <li>◆ Link 16 MIL-STD-6016 STANAG 5516 JTIDS TIDP (Multiple Revisions)</li> <li>Smart Host for: Class 2H (1553B) Class 2M (ADDSI) MIDS (multiple I/Fs)</li> </ul>	<ul style="list-style-type: none"> <li>◆ Link 11, Link 11B MIL-STD-6011 STANAG 5511 JCS Pub 6-01.1 (Multiple Revisions)</li> <li>TDS interfaces: NTDS (Parallel) ATDS (Serial) MIL-STD-188-203 MIL-STD-188-212</li> </ul>	<ul style="list-style-type: none"> <li>◆ ATDL-1 MIL-STD-6013 JCS Pub 6-01.3</li> <li>◆ FAAD Data Link MIS36264</li> <li>◆ IDL 122710-820-Q73S-IDD-CC</li> <li>◆ UDL 13162159</li> </ul>
--	---	---

### ◆ Data Link Forwarding

◆ Link 16 ◀▶ Link 11/11B	◆ IDL ◀▶ Link 11/11B, FDL, UDL, ATDL-1
--------------------------	--

### ◆ Data Link Translation

### ◆ Interface Protocols & Standards

<ul style="list-style-type: none"> <li>◆ RS-232</li> <li>◆ RS-422</li> <li>◆ RS-449</li> <li>◆ RS-485</li> </ul>	<ul style="list-style-type: none"> <li>◆ EIA-530</li> <li>◆ EIA-530A</li> <li>◆ V.35</li> <li>◆ V.36</li> </ul>	<ul style="list-style-type: none"> <li>◆ X.25</li> <li>◆ HDLC</li> <li>◆ ADDSI</li> </ul>	<ul style="list-style-type: none"> <li>◆ TCP/IP, UDP, MULTICAST</li> </ul>
--	---	---	--



Redondo Systems, Inc.  
4025 Spencer St.  
Suite 104  
Torrance, CA 90503

Voice (310) 542-6730  
Fax (310) 542-6771  
WWW.RedondoSystems.com

Contact Marketing at:  
RSI@RedondoSystems.com

## DLT System Features

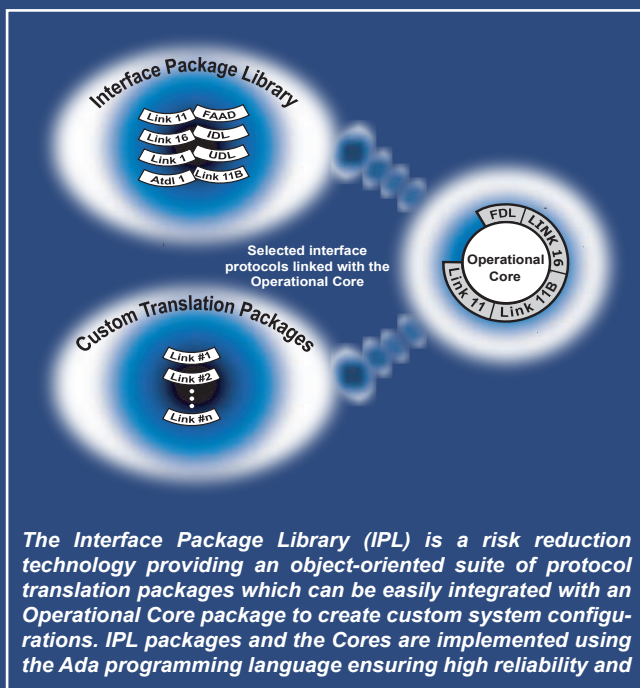
- ◆ **User Interface**
  - ◆ Multiple tactical displays
  - ◆ Multiple hook readouts
  - ◆ Operator input dialogs
  - ◆ System operational status
- ◆ **Hardware Configuration**
  - ◆ Ruggedized chassis
  - ◆ Rack mount option
  - ◆ Off-the-shelf I/O Cards
  - ◆ Dual display monitors
- ◆ **Link 16 Terminal Interface**
  - ◆ JTIDS network download files (read and create)
  - ◆ Smart Host
- ◆ **Link 11 DTS Interface**
  - ◆ NTDS, ATDS
- ◆ **Track Database**
  - ◆ 2000 objects (minimum)
- ◆ **Network Support**
  - ◆ Multiple workstations
  - ◆ Distributed processing
  - ◆ Integrated situation awareness
- ◆ **GPS Interfaces**
  - ◆ GPS Sync, IRIG-B
- ◆ **Automatic Initialization**
  - ◆ Turn-key operation
  - ◆ User defined adaptation parameters
  - ◆ JTIDS network download files
- ◆ **Chassis Details**
  - ◆ Rack mounted
  - ◆ Dimensions (W x H x D) 19.00x7x20.1in
  - ◆ Weight 31.5lbs
  - ◆ Multiple power supply options
- ◆ **Operating Environment**
  - ◆ Temperature: 10 to +50°C
  - ◆ Humidity: 8 to 90% RHNC
- ◆ **Storage Environment**
  - ◆ Temperature: -40 to +60°C
  - ◆ Humidity: 8 to 90% RHNC
- ◆ **Agency Approvals**
  - ◆ FCC Conformity with 47 CFR Part 15, Subpart B, Class A
  - ◆ CE Conformity with EU EMC Directive 89/336/EEC, EU Low Voltage Directive 72/23/EEC
  - ◆ UL Recognized to UL 1950, 2nd Ed: 1993, cUL/CAN/CSA-C22.2 No.950-93

## DLT System Description

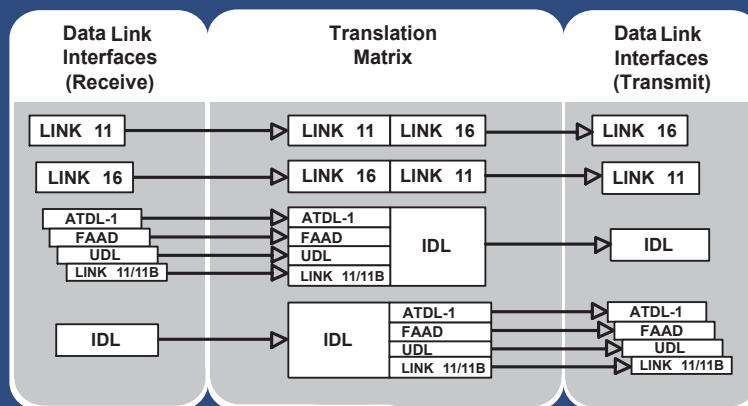
DLT is a PC based data link translation and forwarding system that uses ruggedized, commercial off-the-shelf hardware configurations for enhanced reliability and durability. Once installed and configured, the DLT automatically begins servicing translations for the configured data links. Subsequent system restarts require no operator interaction making the DLT a complete turn-key system.

In diverse multi-link environments, the DLT can rapidly share data between participants on different links. DLT links may be independently configured to act as both data sources and data destinations with messages received on a source link translated to one or more destination links. Users may pre-define a translation matrix identifying those configured source data links which are to be translated to destination data links.

DLT creates tracks in its track database from received track messages. External interfaces configured into the DLT independently scan the Track Database both on a periodic and on-demand basis to generate the appropriate messages for each object. Message generation and processing is based on the requirements of the associated specification for each configured external interface (e.g. MIL-STD-6016B). Translation between configured links is governed by applicable translation specifications.



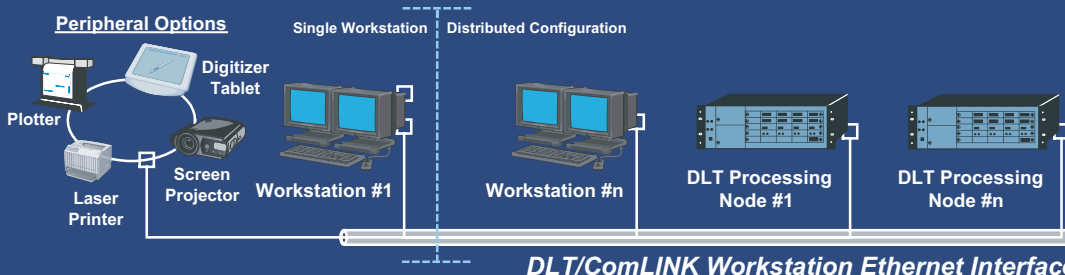
The Interface Package Library (IPL) is a risk reduction technology providing an object-oriented suite of protocol translation packages which can be easily integrated with an Operational Core package to create custom system configurations. IPL packages and the Cores are implemented using the Ada programming language ensuring high reliability and



DLT is normally configured as a single workstation supporting multiple data link interfaces. The number of external interfaces supported by a single workstation is virtually unlimited. When more external interfaces are required, the DLT can be configured as a distributed network supporting multiple integrated workstations

and processing nodes. Additional processing nodes can easily be added when elements of the system are physically separated.

One or more DLT's can be combined with RSI's ComLINK network providing forwarding and concurrent interface unit capabilities.



DLT/ComLINK Workstation Ethernet Interface