

Raytheon



LSDL Newsletter

Volume 3, Issue 1
June 2004

Wayne Hawkins
Director



Message from the Director

New Opportunities for 2004

There are new and exciting opportunities and challenges for our team as the 2004 year unfolds. We are proud to announce the newest addition to our family of world class enterprise tools: IConvert 2.0.

We have teamed with InfoConversions, another dynamic company in the document services business, to provide a new, high productivity approach for converting legacy data (PDF file or paper) to XML or other electronic formats. This new approach, which employs the user friendly, intuitive AIMSS graphical interface for the editor, provides a high degree of automation and artificial intelligence to add new levels of productivity to the translation process. I encourage you to check out additional details about IConvert on page 2, and to download a synopsis posted on our Web Site.

<http://www.raytheonlogisticstools.com>



Another exciting development for 2004 is the rapid expansion of Performance Based Logistics (PBL) and the use of our Maintenance Management Information System (MMIS).

In This Issue...

Message from the Director	1
Introducing... IConvert 2.0	2
The ASENT / EAGLE Advantage	3
MMIS Configuration Management System	5
New AIMSS Functionality	6
UPTIME – We Take Care of Your Flight Data... ..	7
2004 EAGLE / iLog User Conference	8
Latest Version of our Tools & Customer Support	8

Performance Based Logistics is the way of the future in logistics support and LSDL plays a very significant role with our EAGLE based MMIS tool. MMIS is the proven tool for Performance Based Logistics!

Currently being used in PBL contracts in the United States and Australia, MMIS is the tool providing real world solutions and being successfully used to manage repair and depot activities. A whole new suite of Web pages awaits you, with details on the many capabilities MMIS brings to Web accessible logistics. Just click on the 'MMIS' link on our web site!



During a recent visit to our European customers (BAE, GKN Westland, Alvis Vickers Ltd, Marconi, RAF, Wyton, and Pilatus Aircraft) it was great to see how they are using our tools and realizing how much they are helping them gain a competitive edge in the logistics support environment.

During the trip we introduced the new IConvert tool, which generated much interest. They were also pleased to see the coupling between the ASENT and EAGLE tools (see article on page 3) and thought that, in addition to the significant productivity gains being provided by the linkage, this coupling would also create a stronger relationship between their logistics and engineering groups. It is gratifying to see that customer satisfaction, always our number one priority, is high, with our customers having plans to expand their use of our tools. They also plan to recommend the tools and Raytheon Technical Services to other companies and vendors that they deal with. The expanding customer base brings in new ideas and enhancements that benefit the entire user community.

(Continued on page 2)



LSDL Newsletter



Volume 3, Issue 1

June 2004

New Opportunities for 2004 (continued from page 1)

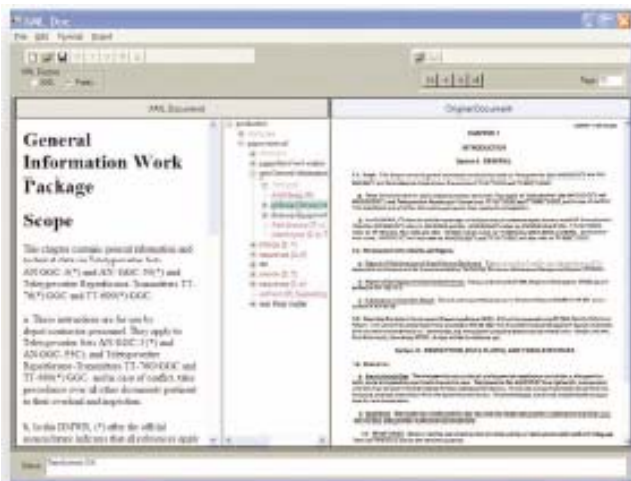
The excitement should not ebb as the year progresses. We look forward to meeting and working with current and prospective users at the Society of Logistics Engineers (SOLE) 39th Annual Conference in Norfolk, VA. in August. The next International EAGLE / iLog User Conference is scheduled for October this year in London, UK and is always an invigorating exchange of insights and information about current and future logistics, in addition to a wellspring of ideas for improving the productivity of the logistics professionals. It is always inspiring and exciting to meet with so many distinguished, experienced Logistics professionals, and I encourage you to share in this uplifting event. The details are available by clicking on the EAGLE link on our Web site.

I hope to see you there! ✨

Introducing...



Do you have a ton of legacy data that is in either paper or PDF, and want to convert to XML but couldn't because of the high cost of conversion? Well, happy days are here: with IConvert you can transfer your legacy documents into globally accessible XML and web-browsable HTML at less than half the cost of traditional methods.



IConvert™ reduces per-page conversion cost by 50% to 80% over current methods

Raytheon teamed with a small business, InfoConversions, to create a process where we use the IConvert 2.0 tool for converting the legacy PDF files to XML and interfacing with our AIMSS IETM tool. AIMSS acts as the functionality editor for the native XML to add hyperlinks and enhance interactivity.

InfoConversions and Raytheon LSDL are working together to build and integrate state-of-the-art software tools for data conversion and complex interactivity. Below are some of the benefits from IConvert and also in simple terms how it works.

<i>IConvert 2.0 Benefits</i>	
Eliminates formatting to identify document chapters, sections and paragraphs.	
Automatically merges multiple page tables into a single structure for rapid browser viewing.	
Does not require knowledge of the document or Document Type Definition (DTD) to create the XML.	
End product is traceable back to the original source material at the page level.	
Produces simple to structured XML using DTD. Data is used to create Class III, IV, or V Interactive Electronic Technical Manuals (IETMs).	
Scalable to documents with millions of pages.	

Transforming "stovepipe" documents from static pdf files and paper into active, *repurposable* XML-based information is achievable, and the best part is that it is available today at 50-60% less than the going per page rate. Please go to our Website for more information. ✨

<http://www.raytheonlogisticstools.com>





LSDL Newsletter

Volume 3, Issue 1

June 2004



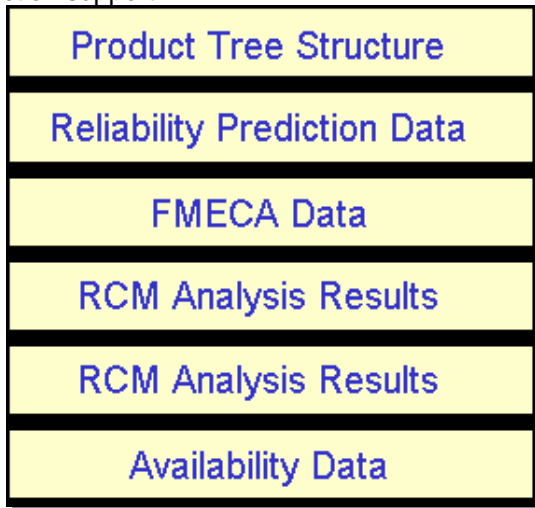
The ASENT / EAGLE Advantage

Raytheon offers a family of world-class COTS software products (ASENT, EAGLE, AIMSS, and MMIS) that provide support for your programs. Any one of these tools, used by themselves, provides you with tremendous capabilities, but used together provide an unbeatable combination.

This article will focus primarily on the collaborative approach between ASENT and EAGLE and the automated data exchange between these tools.

ASENT combines all the software tools needed to perform upfront design analysis – Reliability predictions, Reliability Modeling, FMEA/FMECA, RCM Analysis, Maintainability predictions, Testability analysis, Availability calculations, and Thermal Analysis.

EAGLE presents a complete logistics solution, from building logistics data and maintaining existing databases to providing reports, technical manuals, and other post-production support.



The ASENT advantage is the best solution available

When the 'Type of Export' is set to 'Initial', then all the data necessary to establish an LSAR structure, including the XA, XB, XC, HA, and HG tables are written out to the fullfile.

If 'FMECA Data' is checked then the BL record is written out for the selected function and phase, and the BA, BB, BD tables are populated for each node in the FMECA tree (see Figure 1).

If criticality numbers have been calculated in ASENT and severity levels have been defined, then the BK table is populated. Tables BG, BH, BI, and BJ are populated as part of the Failure Mode data export.

1388-2B Tables	Data Exchange	
	ASENT/EAGLE	Other Tools
AA	YES	???
AB	YES	???
AG	YES	???
BA	YES	???
BB	YES	???
BD	YES	???
BF	YES	???
BG	YES	???
BH	YES	???
BI	YES	???
BJ	YES	???
BK	YES	???
CA	YES	???
CB	YES	???
CC	YES	???
CD	YES	???
GA	YES	???
HA	YES	???
HG	YES	???
XA	YES	???
XB	YES	???
XC	YES	???

Figure 1 – EAGLE LSAR tables populated by ASENT

Exporting Data from ASENT to EAGLE

With ASENT, you have complete control of the data exchanged between ASENT and EAGLE. You can easily generate a fullfile to initially populate your EAGLE database or just export the changes. Figure 2 shows the ASENT export screen and some of the options that are available.

The ASENT product tree structure, failure rates, MTBF values, FMEA/FMECA data, RCM Analysis results, Maintenance tasks and times, and Availability results can quickly and easily be passed to EAGLE. Figure 1 shows the primary tables that are populated with ASENT data, resulting in huge time savings for the end user.

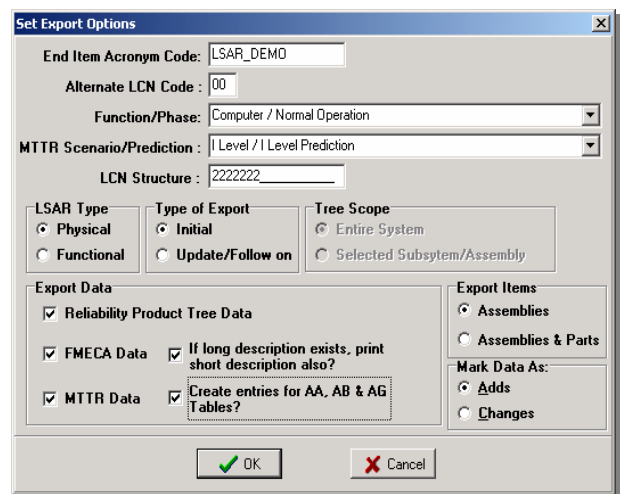


Figure 2 – ASENT Export Screen

(Continued on page 4)



LSDL Newsletter

Volume 3, Issue 1

June 2004



The ASENT / EAGLE Advantage (continued from page 3)

If 'MTTR Data' is checked, then the HG table entries for the assemblies are created. Also, for initial exports the AA, AB, AG, and GA tables are populated.

Tables CA, CB, CC, and CD are populated with assembly, task and subtask data associated with the selected Maintainability prediction. Figure 3 shows an additional export screen that the ASENT user would see when exporting Maintainability data.

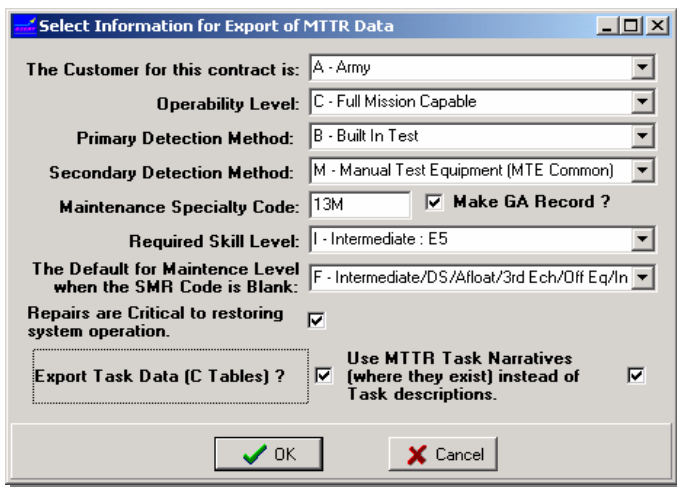


Figure 3 – Additional ASENT Export screen when MTTR Data is checked

Importing Data to ASENT from EAGLE

In today's environment, it is becoming more and more common for customers to field existing products longer. This creates a demand for upgrades and redesigns of existing products.

Because of this, the ASENT / EAGLE solution provides users a huge productivity lift by allowing them to import existing program data from EAGLE into ASENT. This allows users to perform trade-offs and additional design analysis in ASENT and quickly assess the impact on their system.

Creating a fullfile in EAGLE, and importing it into ASENT, the transfer of data from EAGLE to ASENT is quickly and easily accomplished. Depending on the user's selections, the product tree structure, failure rates, FMECA data, and Maintainability Data are populated in ASENT. Figure 4 shows an example of the import screen ASENT users see when bringing data in from EAGLE.

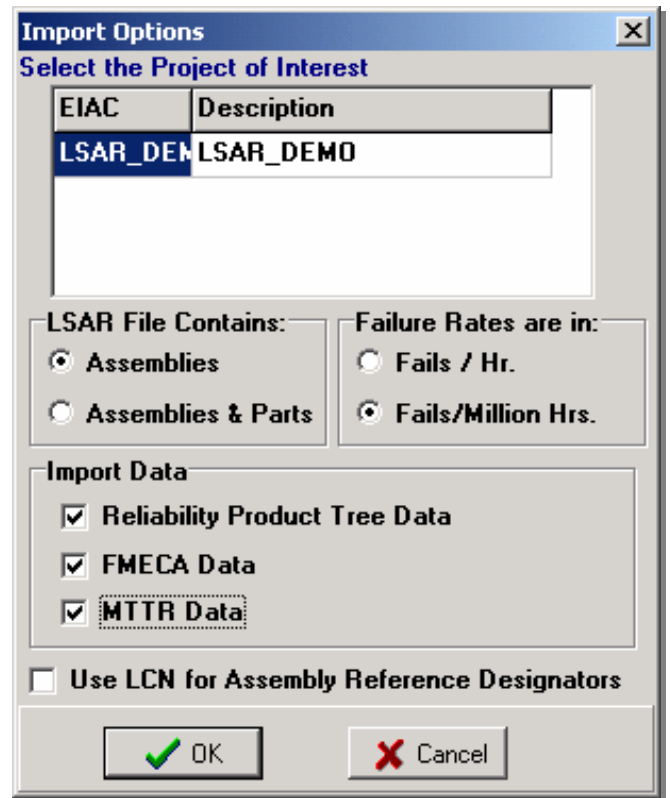
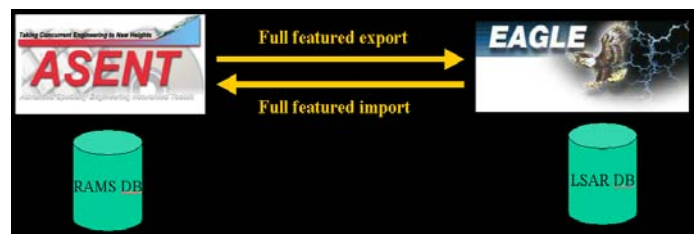


Figure 4 - Sample ASENT Import Screen

In summary, the automated exchange of data between ASENT and EAGLE can save users a tremendous amount of time and energy. While most tools advertise some ability to pass LSAR data, only ASENT and EAGLE provide full-featured import/export capabilities that are quick and easy to use.



ASENT's Bi-directional EAGLE LSAR Interface

We encourage you to compare our capabilities to other tools on the market. We are convinced that you will discover what we already know, that the ASENT / EAGLE advantage is the best solution available. ✨

For information on **ASENT**, or to arrange an online demo, please contact Rich Herman at 972-344-6179
email: raytheoneagle@raytheon.com
<http://www.raytheonlogisticstools.com>



LSDL Newsletter

Volume 3, Issue 1

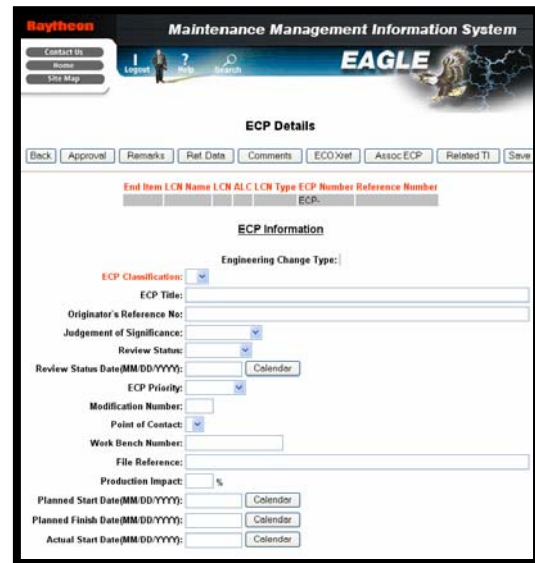
June 2004



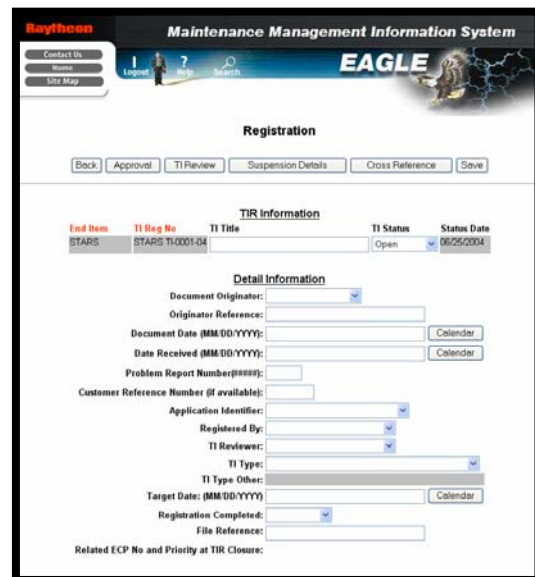
The Proven Performance-Based Logistics Tool

Configuration Management System

The EAGLE Configuration Management System is a discipline within the EAGLE Maintenance Management Information System (MMIS). The Configuration Management System gives users the ability to develop, modify, produce and manage technical data (Engineering Change Proposals (ECP), Engineering Change Orders (ECO) and Technical Information Review (TIR)). The data is then used to control retrofit and modification activity on fielded units.



The TIR portion of the Configuration Management System tracks technical data related to a TIR. The approval process is controlled by the same flexible workflow system described above. TIRs are conducted to determine if an ECP or ECO should be initiated. TIRs can be linked to ECPs, ECOs, documents, part applications, and Contract Line Items.



The ECO portion of the Configuration Management System tracks technical data related to an ECO, which can also be linked to ECPs and TIRs. Finally, the ECO application allows the documentation of affected areas. ✨

For more information, contact Anthony Zucco at 520-663-8461
Email: raytheoneagle@raytheon.com
<http://www.raytheonlogisticstools.com>



The ECP portion of the Configuration Management System tracks technical data related to an ECP. The approval process is controlled by a flexible workflow system. Workflows are created for each type of ECP and then assigned to individual ECPs; the approval steps are then signed off with electronic signatures. The ECP can be linked to: ECOs, TIRs, associated ECPs, drawings, illustrations, documents, tech manuals, fielded parts (by serial number), default retrofit repair routes and Contract Line Items. If an ECP is linked to a serialized unit when it is returned to the Depot for repair, the item is flagged that a retrofit is required per the outstanding ECP. A retrofit repair route is assigned to the serialized asset once the asset is inducted for repair.



LSDL Newsletter

Volume 3, Issue 1

June 2004

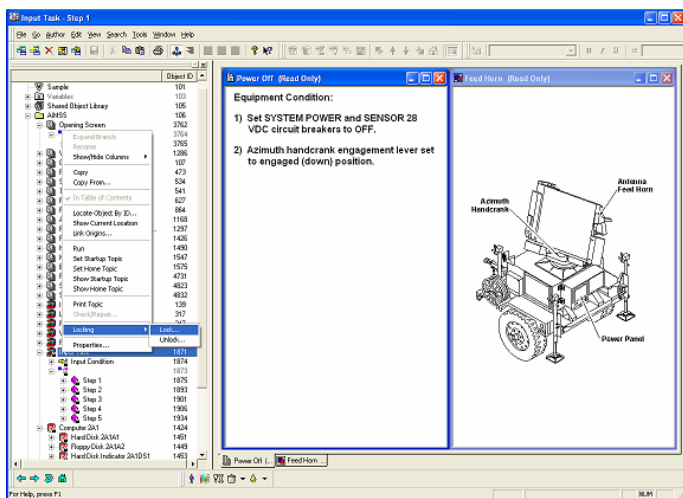


New **AIMSS**™ Functionality

You requested it and we listened. The upcoming version of AIMSS incorporates several exciting new features based on customer feedback to improve author efficiency and end user data accessibility. A new *data locking* feature has been incorporated to provide administrative control of AIMSS databases, allowing locking of IETM data for quality assurance (QA) purposes and data configuration control. In addition, a topic preview feature has been incorporated to allow an entire topic to be printed for review or to provide a quick topic summary.

Data Locking

The new *data locking* functionality provides the ability to "lock down" a section of the IETM and disallows editing of any locked data. This capability opens up new administrative options within AIMSS and allows a detailed level of QA control. Only users with specific rights can lock and unlock data to ensure QA processes will be followed. For ease of management the administration capability is linked to Microsoft Windows® user management functions, allowing AIMSS administration to be incorporated into existing network user policies.

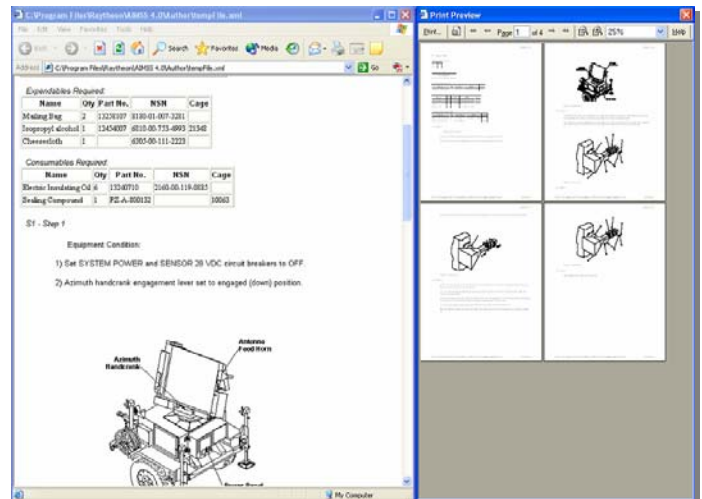


Users with locking rights will be given the ability to lock or unlock data from the Structure Editor. Locking can occur at any level within the IETM, and locked data will be indicated with a lock icon in the AIMSS Structure Editor.

Locking an object in the database will also lock the children of that object. Information that is locked will be displayed as read-only to authors, disallowing inadvertent changes to data.

Topic Preview

Printing IETMs have always been difficult due to the fact that IETM data is non-linear and the data displayed is usually filtered based on the user's current context. Although these issues still exist for complex interactive documents, AIMSS now allows a topic preview functionality that will display most IETM topics in a web browser window and allow them to be reviewed and printed like standard web documents.



The topic preview functionality collects and displays information from AIMSS Task, Description, Fault, and Part topics into a web browser window. This data can be scrolled or printed using standard browser functionality, providing a single overview of the entire topic. To allow display of interactive data a "print comment" has been added to interactive content allowing the author to provide a human readable statement describing dynamic IETM conditionals such as "VOLT>15" to be printed as "If pin voltage greater than 15 volts perform the following step" providing the end user with additional information about complex documentation.

With the incorporation of data locking and topic preview AIMSS now provides additional data review capabilities and demonstrates a customer-driven focus. ✨

For more information on **AIMSS**, please contact
Sean Rushing at 520-663-8440
Email: raytheoneagle@raytheon.com
<http://www.raytheonlogisticstools.com>



LSDL Newsletter

Volume 3, Issue 1

June 2004



We Take Care Of Your Flight Data So You Get To Answers Sooner

UPTIME provides flight data monitoring and reporting services that are easy to use and cost effective. The results are improved profit margins and increased safety. UPTIME monitors and reports your flight data with a per flight charge which means no capital costs and immediate payback.

- Increase Profitability.
- Maximize Fleet Utilization.
- Avoid Costly Unscheduled Maintenance.
- Monitor Flight Operations Pro-Actively.

UPTIME's Smart box connects to the aircraft's data bus and communicates flight operating data as it is generated from existing on-board sensors. The smart box, also known as AFIRS (Automated Flight Information Reporting System), is the size of an ARINC 404 1/2 ATR Avionics Box and is supplied and maintained by team UPTIME. The Internet based UPTIME facility securely captures and archives this data, automatically providing client-defined reports during aircraft operation.

AUTOMATIC FEATURES

- Reduce Time Spent Gathering Data for Routine Reports. (Flight/Block Times, Trends, FOQA, etc.)
- Automate OOOI Time Reporting on a single fleet wide time signal.
- Monitor Engine and APU Condition and Trends.
- Two-Way Cockpit Text Messaging.
- Evaluate Status of Aircraft Systems and Operation.
- Pilot Debrief – Aids in Training.

We provide timely and accurate information on your fleet operations to the point of decision making. Our Mission is to better facilitate and enhance pilot training and to increase efficiency and safety for Military Aviation.

UPTIME's capabilities are fully integrated with our Materials Management Information System (MMIS) to provide a full range of failure reporting capabilities. Failures can be recorded quickly and analysis begins for system trends, impact on fleet operational availability, and on-hand spares.

Raytheon Materials Management Information System

EAGLE
Enhanced Automated Graphical Logistics Environment (EAGLE™)

Enter the EAGLE On-line Materials Management Information System (MMIS). Authorized users can obtain and/or update the status of all DVD materials instantly using the forms provided over the internet. This system is used for:

- As Built/Maintained Configuration Management
- Electronic Data Interchange
- ESS and Inspection Test
- Failure Tracking and Operational Use Recording
- Materials and Inventory Management
- MMIS Process
- Parametric Data
- Project Setup
- Reporting System
- Work Flow

Other features shown: Automated Reports (Engine, Flight, APU, Trends), Web Browser, Messaging / E-mail, FOQA, FRACAS, Logistics Support, Administration Tools, Firewall HTTP Server, Flash Card, FDR Files and Summary Files (Engine, Flight, APU, Trends), Firmware Upgrade.

Raytheon Materials Management Information System

Report run on: October 17, 2001 7:19 AM
FRACAS TREND REPORT
End Item: ALR67(V)3 PN: 1874AS6000-105
Name: CR

Part Number	Defective Part Name	Defects	%
1874AS6000-5	RF ELECTRONICS MODU	1	3.84615384615385
1874AS6000-1	RF DISTRIBUTION ASS	1	3.84615384615385
1874AS6000-002	SUPERHET LO DOWNCON	2	7.69230769230769
1874AS6000-30	ASSEMBLY CHANNELIZ	1	3.84615384615385
1874AS6007-1	CUED RECEIVER MICRO	9	34.6153846153846

The report also includes a pie chart showing the distribution of defects by part number and a bar chart showing the number of defects for each part number.

MMIS Failure Trend Analysis Report

For information on UPTIME, please contact Rhonda Payne at 403-295-6603
Email: raytheoneagle@raytheon.com
<http://www.raytheonlogisticstools.com>



LSDL Newsletter



Volume 3, Issue 1

June 2004

Raytheon



2004 EAGLE / iLog User Conference



The 2004 User Conference will be held in London, UK from October 11th thru 13th. This is our 3rd annual User Conference and, based on the attendance and success of the prior two years, it

promises to be another exciting and important event that you would not want to miss. For example, last year's User Conference was attended by more than eighty participants representing approximately fifteen organizations from six countries.

Watch for more details on our next Newsletter or go to the sources listed below.

- [☛ Conference Schedule](#)
- [☛ Conference Brochure](#)
- [☛ Conference Registration](#)
- [☛ Hotel Registration](#)



Check our website for updates at www.raytheoneagle.com

Or call the EAGLE Helpdesk at 520.663.6673

Or e-mail us at raytheoneagle@raytheon.com

Mark your calendars today and plan to join us. ✨

LATEST VERSION OF OUR TOOLS

AIMSS	4.4.3	(Mar 2004)
ASENT	11.0	(May 2004)
EAGLE	4.5.3	(Dec 2003)
MMIS	4.5.3	(Dec 2003)

LSDL PRODUCT SUPPORT

Telephone: 1-866-773-0557 (toll-free)

Fax: 310-952-4441

Email: reschwarzberg@raytheon.com

For more information on our products:

<http://www.raytheonlogisticstools.com>

AIMSS™, ASENT™, EAGLE™, and MMIS™ are trademarks of Raytheon Company.

ICovert™ is a registered service mark of InfoConversions, Inc.

UPTIME™ is a registered trademark of Aero Mechanical Services.

Copyright © 2004 Raytheon Company. All Rights reserved.

Raytheon

Customer Success Is Our Mission