

Raytheon



LSDL Newsletter

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*Wayne Hawkins
Director*

Message from the Director



Starting the Year with a Bang!

The year is off with a 'BANG' as we are busily exhibiting, talking to our customers and incorporating their comments and suggestions into even more enhancements of our tools

I just returned from two trade shows: the 21st Annual National Logistics Conference & Exhibition in Miami, FL and the Army's 14th TACOM/Industry Logistics Symposium in Dearborn, MI. There were over 1,600 participants at these two conferences and our software tools were received with great enthusiasm. The primary Tools featured at these conferences were IConvert, EAGLE and MMIS. This comes on the heels of a very successful exhibit at the IEEE RAMS Symposium where we featured ASENT, EAGLE and MMIS to an additional 600 participants.

IConvert 2.0 There is great interest in an Army sponsored Logistics Maintenance Information Transformation project, which we are currently working on and using the IConvert tool. The task is to transform the Army's existing paper, image and PDF maintenance information into architectures for rapid transfer to forward battlefield operations.

Initial efforts have demonstrated a reduction in per-page cost of conversion of Army technical data by over 50% below the current established costs. Continued efforts will reduce the cost another 12%, providing two to four times more useful information per dollar invested. According to Army sources, "conversion of this information will have a direct impact in operational theaters such as Iraq and Afghanistan, by reducing cycle time between sorties/missions and increasing combat available hours, reducing downtime of assets in repair, providing more responsive support to soldiers in wartime theaters, and making up-to-date information available to remote repair locations. Life Cycle Cost of future information maintenance will be reduced as a result of his initiative, freeing funds to support other direct theater requirements without increasing budgets." Several potential customers are watching the results of these developments prior to making their buy decisions.

MMIS MMIS was also a hot topic during the conferences. This tool is really starting to take off outside of Raytheon. We are in the final stages of completing a sale to our largest customer in the UK to make MMIS their corporate standard. Also several large US companies are negotiating company/corporate licenses. The tool is the heart of our PBL capabilities and with our continued growth we have the capability to support UID/RFID, WEBCAVS synchronization, procurement systems and document systems. During the shows there was much interest in these capabilities and our future growth of the product.

It is not too early to start planning for your attendance at the 4th Annual EAGLE/iLog Users Conference. It will be at the OMNI Tucson National Golf Resort & Spa from 26-29 September 2005. As usual, it will be very informative and offer something for all who participate.

Don't miss it! ✨

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What's New in Version 11.5

Version 11.5 of the ASENT R&M Toolkit was just released. ASENT is an integral part of our family of world-class products, and we continually strive to make it better with each release. Input from training classes, customers, and work done on Six Sigma productivity projects, have all contributed to the latest version of ASENT.

This short article will briefly describe some of the new features included in the ASENT 11.5 release. With each release there are many minor enhancements that help fine tune the help files, layout of menus, user interfaces, and other aspects of the toolkit. In this article we will focus on a few of the more notable changes.

Key New Features

- Enhanced Testability Analysis and Reporting
- Expanded Failure Mode Criticality Matrix
- New set of reports for RCM Analysis
- Improved interface to Logan FTA tool
- Combine Op and Non-Op in Mission Profiles
- Import Product Trees from Excel Template
- New Reliability Tree Report
- Junction Temperature Calculator
- Added New Part Types for Bulk Data Load
- Enhanced LSAR Interface
- Enhanced Relax Data Translator

FMECA Manager

The FMECA toolkit has been the focus of a wide number of enhancements. New features make it much easier to perform Testability Analysis, and report the results. The Failure Mode Criticality Matrix has been expanded to include an additional page that lists criticality values for each failure mode and a summary of their values. The Logan FTA interface is much more robust, and now allows users to leverage ASENT's FMECA data to create multiple, complex Fault Trees in a single operation.

A new set of reports have been added to allow users to document their Reliability Centered Maintenance (RCM) Analysis. These reports offer a full suite of options and allow you to specify which assemblies are included in the report by assembly type. Figure 1 shows an example of the new report menu for RCM Analysis.

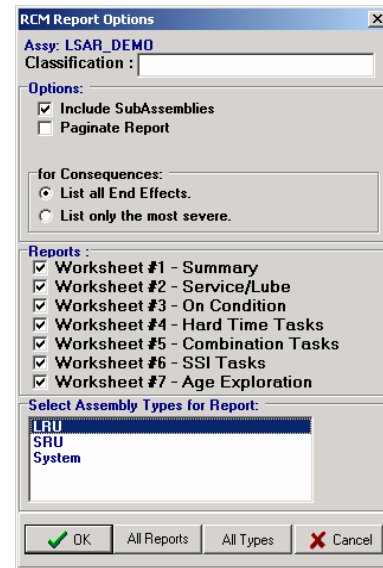


Figure 1 – Report Menu for RCM Analysis

Reliability Manager

The Mission Profiler has been expanded to allow you to include both Operational and Non-operational mission phases in a single profile. A menu item has been added to the subassembly menu, allowing users to import part lists for subassemblies in addition to boards. It has always been easy to import trees or sub-trees from existing ASENT projects, but now you have the ability to import trees or sub-trees from an Excel file. You can either add to the existing product tree or replace portions of the tree with this new feature. A new Reliability Tree Report has been added to complement the existing failure rate prediction reports. It provides a highly tailorable Excel output with much more available information. Users have always had a great deal of flexibility when it comes to thermal data. Data can either be directly entered, or associated with an existing part list by using an Excel file, or calculated by performing a thermal analysis within ASENT. In addition, the user can now quickly approximate junction temperature rises based on power dissipation and junction-to-case thermal resistance. This new feature provides a quick solution for situations where thermal analysis data is not available.

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What's New in **ASENT's** Version 11.5 (continued from page 2)

The screen shot in Figure 2 shows the additional menu option that allows you to import a sub-tree or a product tree from an Excel file.

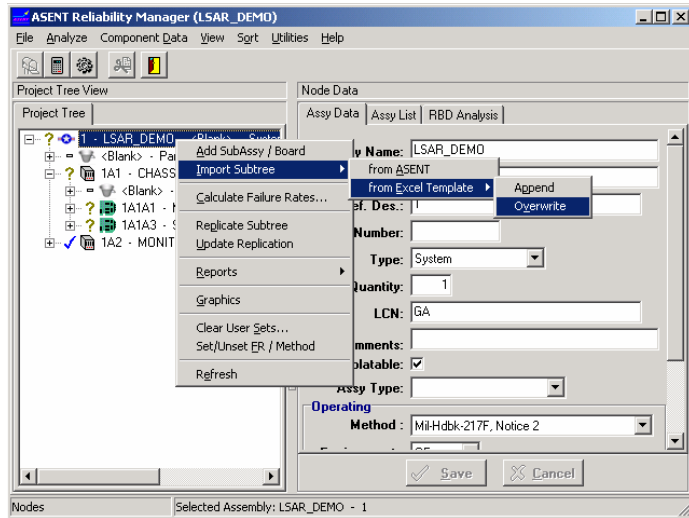


Figure 2 - Import Product Tree from Excel Template

Figure 3 shows a mission profile that is made up of both Operational and Non-operational mission phases.

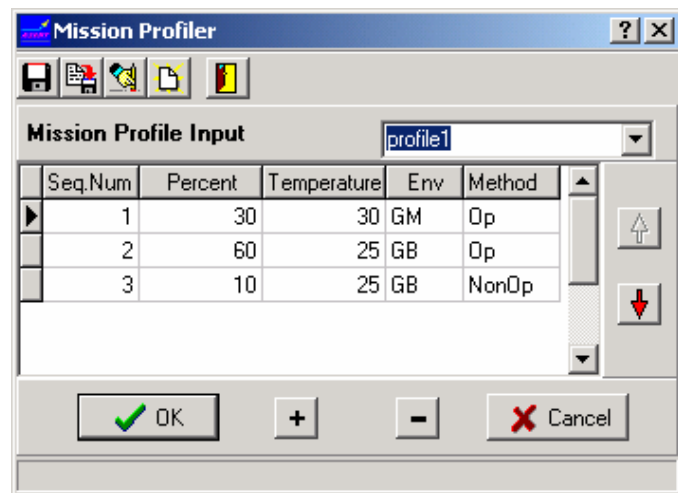


Figure 3 - Mix Op and Non-Op in Mission Profile

Component Data Manager

Currently, users can bulk load part library data from Excel files for a variety of part types. In ASENT 11.5 we have expanded this capability to allow you to import miscellaneous parts and inductors.

LSAR Interface Tool

ASENT continues to provide the most robust capability for interfacing to LSAR tools. While many tools advertise some ability to pass LSAR data, only ASENT provides a full-featured import/export capability that is quick and easy to use. Many new features have been added in this release. The focus of these enhancements has been to continue to make the interface more robust to handle wide variations in data, and to provide users with greater options and flexibility in controlling the flow of data either into or out of ASENT.

Relax Translator

This tool makes it very easy for customers to transition from Relax to ASENT. Legacy data files can be quickly translated to create new ASENT projects. New options allow you to build a consolidated library of parts created through the translation of many legacy projects.

This wraps up a quick summary of some of the new features included in ASENT 11.5. Because ASENT continues to evolve based on customer priorities, we welcome your feedback. We pride ourselves in quality customer support. Quick, responsive replies to all questions is our standard. You can be confident that when you select ASENT, you select unequalled support. ✨

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



Producing S1000D TMs From iLog

iLog is an integrated product that fully complies with Logistics Support Analysis (MIL-STD-1388-2B and Def Stan 00-60), ASD S1000D Technical Publications, and ASD S2000M Initial Provisioning requirements. The iLog product combines Raytheon's EAGLE logistics tool and Logistics Business Systems Ltd.'s Aspect.cs and AcquirED specification tools to meet the ASD S1000D and ASD S2000M requirements.

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Producing S1000D TMs From iLog (continued from page 3)

This integrated option provides an ILS environment, which covers Logistic Support Analysis, Provisioning, and Technical Documentation activities as an efficient workflow-controlled process.

The iLog system is a process to produce S1000D Technical Manuals (TMs) in an integrated manner. The three main components are depicted in Figure 1.



Figure 1 – iLog Integrated Three Main Components

The AcquirED Common Source Database (CSDB) is used to produce S1000D publications. Data is fed into AcquirED from EAGLE for Maintenance Procedures and Aspect.cs for Indentured Parts Lists.

iLog Print Services is used for S1000D print on demand capability. This allows hard copy output of a S1000D manual. iLog Matrix is used as the S1000D Interactive Electronic Technical Publications (IETP) viewer. Data is extracted directly from AcquirED to produce either hard copy or IETP S1000D manuals.

iLog supports all of the currently released S1000D standards as depicted in Figure 2.

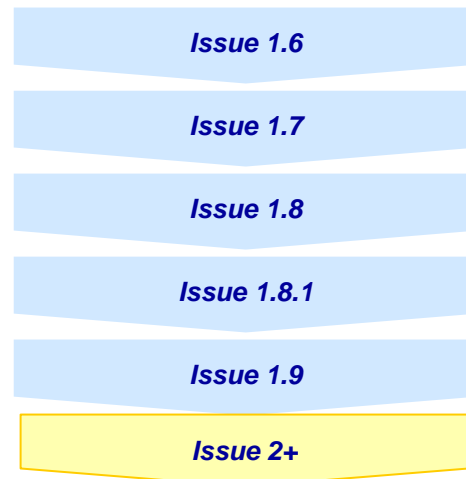


Figure 2 – iLog Supports All Releases of S1000D

Some of the major international Programs and Companies using iLog S1000D Publications and S2000M Initial Provisioning are:

- **Eurofighter –Typhoon**
Alenia Aerospace, Italy and BAE Systems, UK
- **Bowman Communications**
General Dynamics, UK; General Dynamics, Canada; Westland Helicopters, UK
- **Royal Navy Survey Vessels**
VosperThornycroft, UK

Recent Raytheon Programs that are using iLog S1000D Publications include:

- **AMRAAM for US Joint Services and UK RAF**
Raytheon, Tucson, AZ
- **Excaliber for US ARMY**
Raytheon, Falls Church, VA
- **Distributed Common Ground System for US Air Force**
Raytheon, Garland, TX

iLog provides a complete and fully integrated solution for S1000D publications. In summary, some of the major advantages of iLog are:

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Producing S1000D TMs From iLog (continued from page 4)

- Raytheon and LBS are building on European experience to support US adoption of S1000D
- iLog is a proven end-to-end S1000D and S2000M solution
- Fully integrated within a complete ILS capability
- Largest S1000D user base in the world.



Please join us at the **AIA Conference** in Clearwater, FL on May 16-19, 2005 for a complete demonstration of the iLog products. For more information on this event and others, please visit our news and events site:

http://www.raytheon-ew.com/raveag/news_events.htm ✨

For information on **EAGLE iLog**, or to arrange an online demo, please contact Tony Zucco at 520-663-8461
email: raytheoneagle@raytheon.com
<http://www.raytheon-ew.com/raveag/index.html>

2005 EAGLE / iLog Users Conference Tucson, Arizona, USA

With only 6 months left, the planning for the 4th annual EAGLE / iLog Users Conference is well underway. The Conference will be held from the **26th to the 29th of September 2005** at the [Omni Tucson National Golf Resort & Spa](#) (the same location as the 2003 Conference). This year's event will be attended by over 150 delegates from 9 countries. Hosted by both Raytheon and LBS, the Users Conference is designed to bring the international community together to discuss the specifications, standards, experiences, lessons learned and the development road map for each software application. In addition to the main conference program, Raytheon and LBS will hold breakout sessions to provide users with an opportunity for one on one sessions with Senior Analysts and Development Team members.

It's already time to make your reservations and travel arrangements, for you wouldn't want to miss this important annual event. More details and registration information will soon be available on our website:

<http://www.raytheon-ew.com/raveag/userconf2005.htm> ✨

Or you may use one of the following contact options:

Call Tony Zucco at 520-663-8461
Fax: 520-663-8400
email: raytheoneagle@raytheon.com

User Conference
26-29 September • Tucson, Az

Logos displayed: Raytheon, EAGLE, ASENT, AAS, LBS, iLog, AcquirED, Aspectics.



External Systems Interface and Class V IETM Support

The Advanced Integrated Maintenance Support System (AIMSS) Authoring Tools Set provides the ability to interface with external systems using Component Object Model (COM). COM objects are like small programs or functions that are used inside a larger program or as stand- alone functions.

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AIMSS External Systems Interface and Class V IETM Support (continued from page 5)

A COM object might be a calculator, calendar, media player, or even a function that is never displayed to the user.

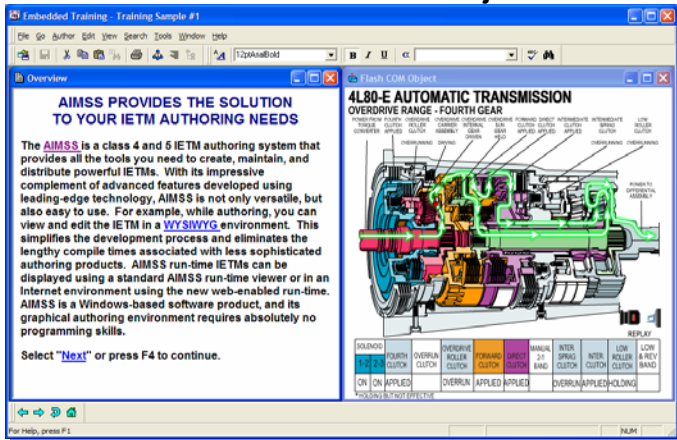
Flash, shockwave, and PDF (Portable Document Format) files can also be handled in AIMSS using the COM and MIME tools. The COM tool allows the AIMSS author to embed Active X controls, such as Adobe® Acrobat®, directly into an AIMSS display window. COM also allows for data exchange between AIMSS and the embedded Active X control. The MIME tool allows the AIMSS author to run an external application simply by specifying a file. For example, if the author wants to display a text document outside of AIMSS, they need only specify the name of the document (example.txt). AIMSS then checks the computer's registry to determine the application associated with that file type, launches the application, and loads the file.

- ◆ Allows end-users to access maintenance data, perform diagnostics and troubleshooting procedures more efficiently.
- ◆ Provides for automated parts ordering and interfaces to supply management systems.
- ◆ Captures maintenance history data for collection and analysis.

For more information on AIMSS COM or Class V capabilities, please contact:

Robert Schwarzberg: 866-773-0557
Email: aimss_support@raytheon.com
<http://www.raytheon.com/products/aimss/>

Embedded Flash COM Object



The AIMSS COM capability also is used to provide Class V Interactive Electronic Technical Manual (IETM) functionality. The AIMSS COM capability provides a software "gateway" for supporting tools to integrate Class V services into AIMSS IETMs. Class V services enable an IETM to make use of "Intelligent" diagnostic and training reasoning capabilities. The addition of these services creates a true Class V IETM. Some of the capabilities provided by Class V services are:

- ◆ Provides an interface to diagnostics, embedded help, and training to form a coordinated and interactive tool for use by the end-users.
- ◆ Describes, in detail, the operations and maintenance tasks, support equipment, and repair parts necessary to operate and maintain the systems and equipment.

LATEST VERSION OF OUR TOOLS

AIMSS: 4.5.1 (April 2005)
 ASENT: 11.5 (March 2005)
 EAGLE: 5.0.0 (February 2005)

LSDL PRODUCT SUPPORT

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

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For more information on our products:

<http://www.raytheonlogisticstools.com>

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