

## Opening Remarks



### 2009 is Well Underway

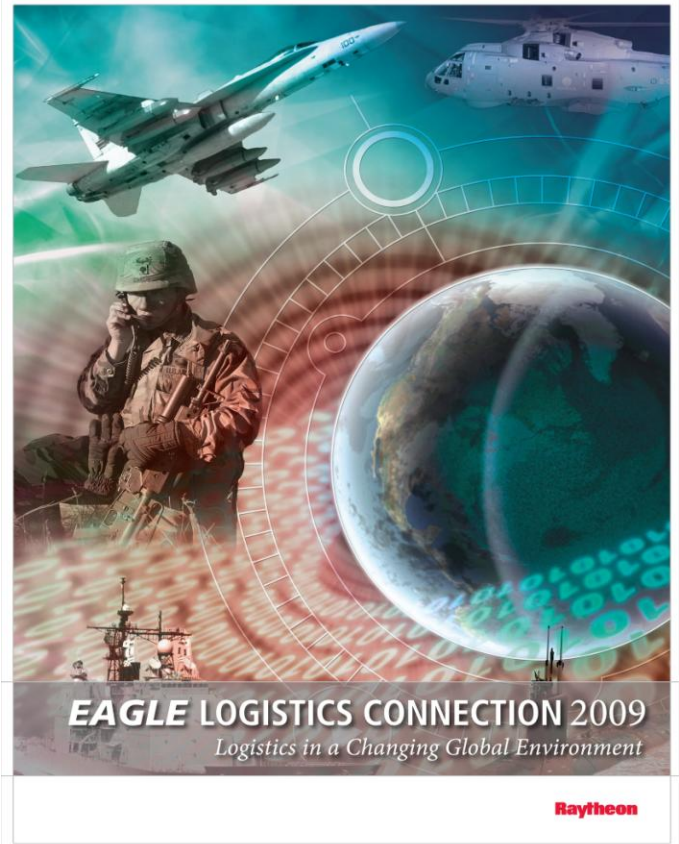
Yes, it is already the middle of 2009. I hope everyone is still committed to their New Year's resolution. If not, it is never too late to (re)start.

With the changing times that we are living through, we, the Raytheon LSDL Team, are committed to our products and providing excellent support to our customers. I am happy to tell you we have seen a growth in our Asian and European markets this year as well as adding new customers at home.

This newsletter will highlight many of the new features and enhancements provided in our latest software releases. We will also cover the upcoming Logistics Connection Conference in October.

Remember to frequently visit our web sites to keep current with our product information.

Tony Zucco  
LSDL Manager



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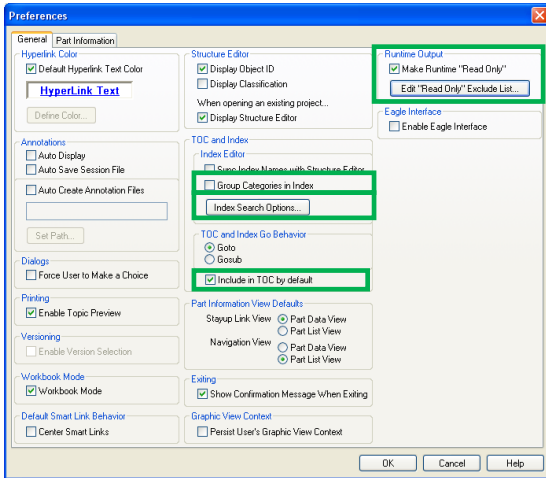
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## AMS™ AIMSS Version 4.9.1 Available

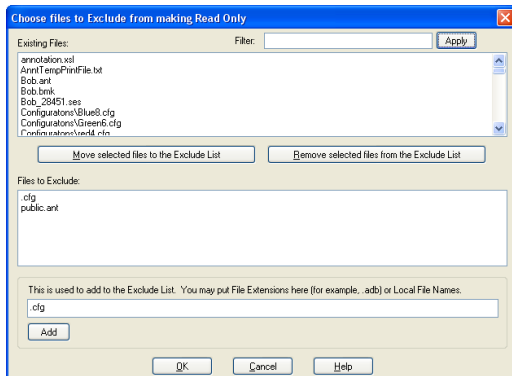
AIMSS Version 4.9.1 is available the end of July, 2009.

It features several enhancements including new Preferences:



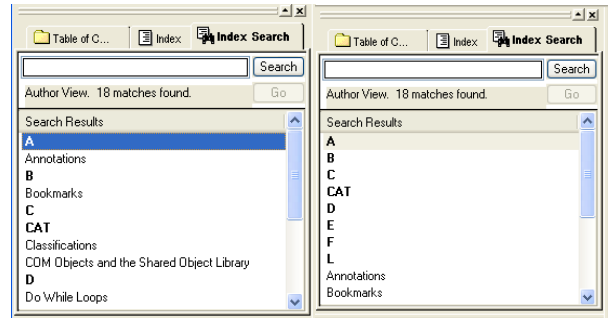
New Preferences Options

- ❖ **Read-Only Runtime Creation Option:** At the time that the author creates a Runtime Project for distribution to the field, he can choose to have the files in the Runtime set to Read-Only. He can also specify a list of files to exclude from the Read Only setting, such as the Public Annotation file which he may wish the end user be allowed to change.



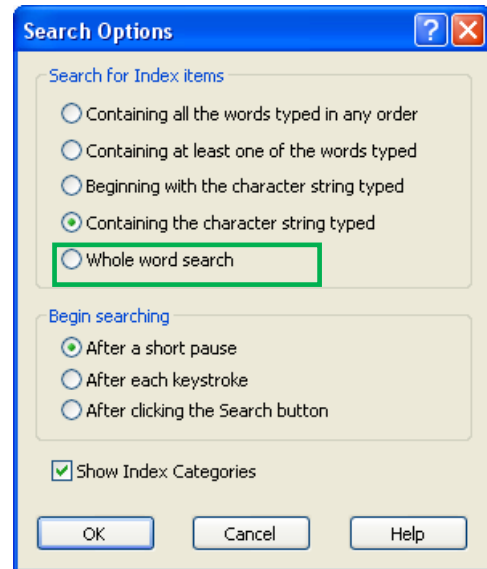
Read-Only file exclude list

- ❖ **Group Categories in Index:** The option is now available to have index categories either grouped together at the top of the index and index search, or alphabetically interspersed with topics.



Categories interspersed with Topics vs. Categories grouped together

- ❖ **New Index Search Option:** AIMSS now has a Whole Word index search option.



Whole Word index search option

- ❖ **Include in Table of Contents by default:** The AIMSS author can now choose whether or not new Systems and Topics are included in the Table of Contents by default or omitted.

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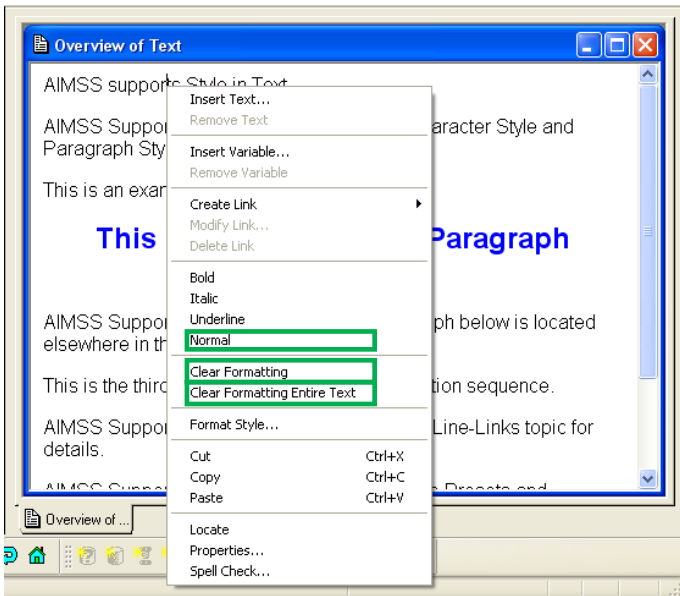
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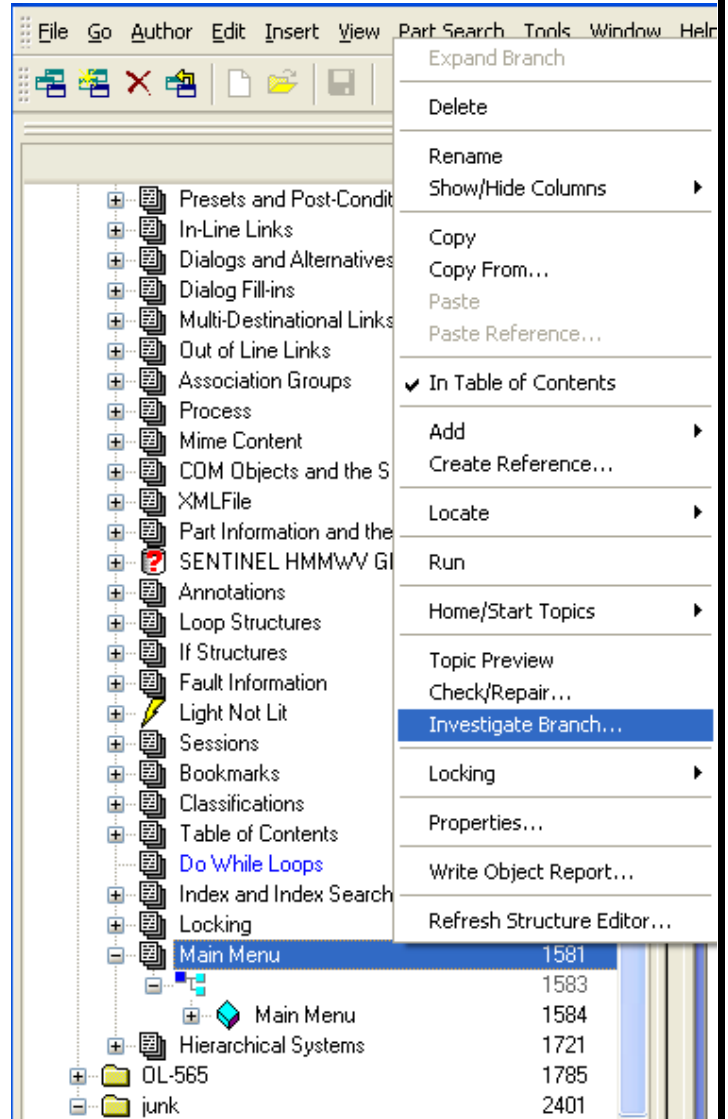
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- ❖ **Enhanced Text Authoring:** The AIMSS Text editor has been improved with enhanced guidance messages, more consistent style application, and the ability to undo Character and/or Paragraph styles. The **Normal** selection removes character formatting for the selected word or words. **Clear Formatting** removes all formatting from the selected paragraph. **Clear Formatting Entire Text** removes all formatting in the text object, retaining links, variables, embedded reference text, etc.

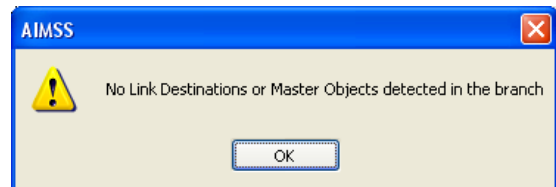


Normal and Clear Formatting selections

- ❖ **Investigate Branch Capability:** Individual branches, at any level of the IETM, can now be investigated to see if any content within the branch is linked to from elsewhere in the IETM. The Link Report specifies whether those inbound links are from within the branch itself or from outside of the selected branch (Bold Label). Investigate Branch also reports if the branch contains master objects that are used elsewhere in the IETM.



Investigate Branch selection



Report for branch that has no content used elsewhere in the IETM.

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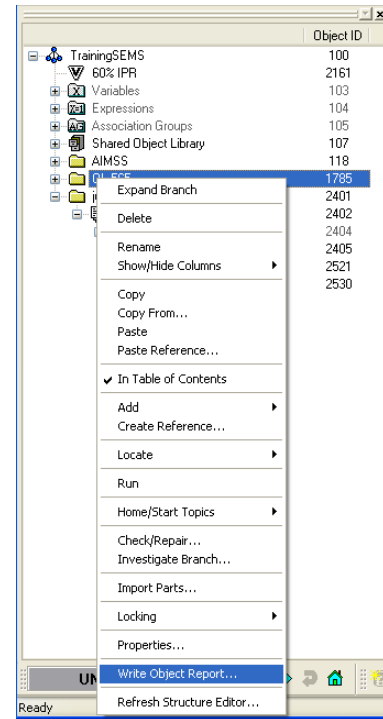
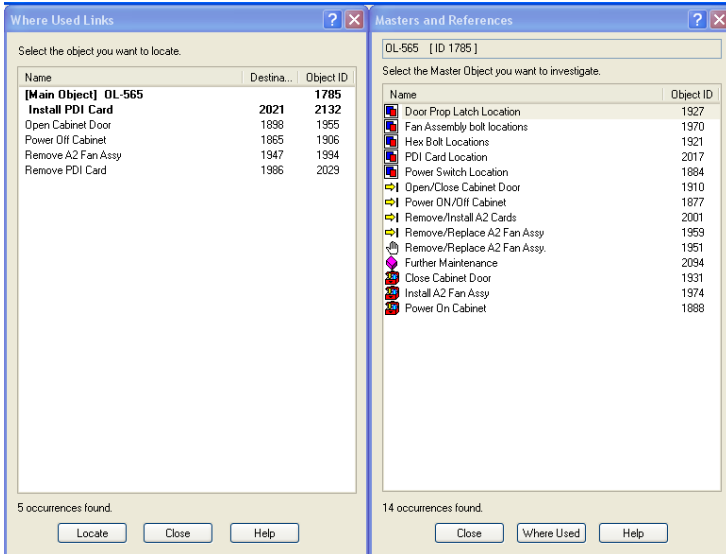
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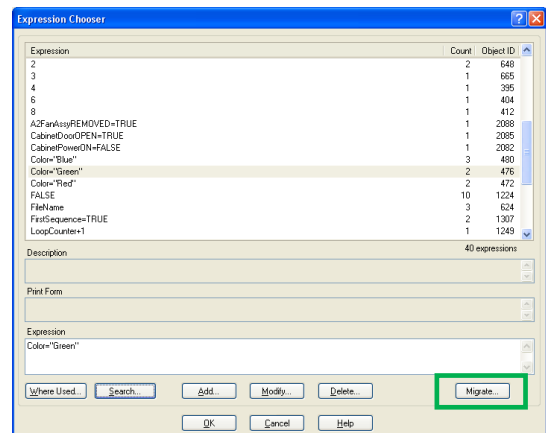


Single Branch Write Object Report

Example investigate branch result with link ends and master objects

- ❖ **Incremental Update Enhancements:** The AIMSS Incremental Update process has been enhanced with the ability to apply updates to Read Only files. The author can also save and restore the Remove, Exclude, and Replace lists.
- ❖ **Table Editor Enhancements:** AIMSS table editor now allows for multiple cells to be selected and styled or formatted at once.
- ❖ **Enhanced Delete:** AIMSS Delete Dialog now has an Investigate Branch button to assist in assessing the impacts of deleting a specific object. Also the author is warned of all master objects and link destinations before any deletes take place allowing for seamless cancellation without impacting existing content.
- ❖ **Write Object Report on Branch:** AIMSS now supports creating an Object Report on any branch or sub-branch within the structure editor.

- ❖ **Migrate Expressions:** AIMSS allows authors to migrate all uses of one expression to another making global change to conditions easier to handle. This facility allows expressions used in various places to be merged into either a new or existing expression.



Migrate button in the Expression Chooser

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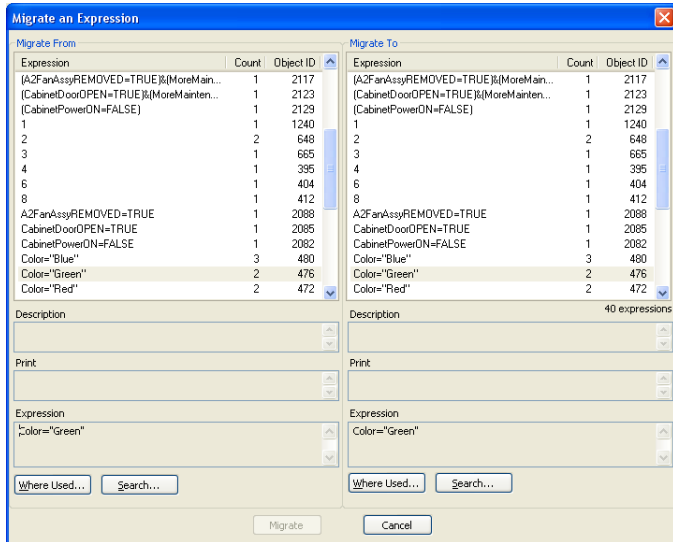
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Migrate Expression Dialog

For more information about AIMSS or to arrange an on-line demo, please contact:

Bob Pearson: at 310.647.3597  
Email: [aimss\\_support@raytheon.com](mailto:aimss_support@raytheon.com)  
<http://www.raytheonaimss.com>

## 2009 Logistics Connection Conference

EAGLE is proud to announce their new conference, the EAGLE Logistics Connection.

The conference theme this year is **"Logistics in a Changing Global Environment"**

This four day event will bring Government and Industry Logistics Leaders, Customers and EAGLE Toolset Developers together for demonstrations, presentations and one-on-one discussions of the capabilities, current use and future directions of the EAGLE Logistics Toolset. As in past events, we will include guest speakers, Help Desk and Sponsor Display areas, Monday Poolside Reception (Sponsored by PTC) and Thursday Night BBQ Dinner.

Below are some of the scheduled presentations:

### ❖ EAGLE/MMIS

- What's New and Insider Tips
- EAGLE Web
- Problems Solved
- EAGLE and GEIA-STD-007
- Mobile Applications
- Depot Management
- FRACAS Overhaul Batch Maintenance
- MMIS Dashboard

### ❖ EAGLE Logistics Toolset

- Total Life Cycle Support
- What's New
- Creating S1000D IPB's
- Publishing System (EPS)
- Problems Solved

### ❖ AIMSS

- Distribution and Incremental Update System

### ❖ ASENT

- R&M Tool Suite Overview

### ❖ PTC

- Issue 3 Applicability Management
- Process DM Overview
- S1000D Overview
- Creating Illustrations in 2D/3D Utilizing Isodraw

Other invited speaker/presenter groups:

LOGSA, Raytheon Australia, AugustaWestland, PTC/User

Please check our website:  
[http://www.raytheoneagle.com/news\\_conf09.html](http://www.raytheoneagle.com/news_conf09.html)

for more information!!



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## New Eagle Logistic Toolset Version 8.1.0 on the way

The latest version of the **EAGLE** Logistics Toolset (ELT – Version 8.1.0) will be released in September, 2009. This version represents a dramatic increase in functionality for the market and technology leading integrated logistics tool set.

### EAGLE includes the following major enhancements:

#### ❖ AdHoc

- Added new Alternate Editor that does not contain the previous Alternate Editor's "smart" formatting
- Added "Best Fit Columns" capabilities
- Enhanced Visual Query Builder capabilities (improved Where statement logical operator processing)

❖ **Graphics:** Added Multipurpose Internet Mail Extension (MIME) external Artwork and Drawing support

#### ❖ Provisioning

- Added capability to disable the NHA PLISN popup display in the Provisioning Finder
- ICAPS PCS header information for LSA-036 report (Not Applicable to EAGLE 00-60)

#### ❖ Task Analysis

- When editing Subtask Narrative as XML, EAGLE now converts tables wider than 65 characters so they can be stored in Table CC
- Enhanced EAGLE's capability to preserve Failure Mode Task data (Table BH records) when a reference task link is removed

❖ **EAGLE Analysis Reports:** New system that allows users to analyze LSAR data for completeness and correctness

❖ **Training Analysis Application:** The new Training Analysis interface within EAGLE is integrated with the Task Analysis discipline in a similar manner as Data Modules have been integrated with the Task Analysis discipline. In addition, like the Data Module screens, the Training Analysis screens will also be available and accessible from the EAGLE Navigator.

- New System to store Training Analysis data elements.
- The Training Analysis data elements are based on the Training Analysis requirements documents provided by Northrop Grumman Corporation (NGC) and referenced specifications (MIL-PRF-29612B, DI-SESS-81518B, and DI-SESS-81519B).

#### ❖ License Management

- Beginning with EAGLE 8.1, the EAGLE software will include license management features.
- License management is provided through Acreso's FlexNet product.
- Both concurrent and fixed licensing will be supported.

❖ **EAGLE Publishing System:** The EAGLE Publishing system enables fast and efficient creation of technical documentation in MIL-STD-40051 format, which can then be viewed in the IADS viewer. The system allows users to:

- Create work packages based on LSAR Tasks
- Supports all MIL-STD-40051 work package types
- Allows viewing of work packages in table of contents format
- Views work packages in IADS or PDF format
- Publishes complete manual for import into IADS
- Tracks and reports percent complete metrics
- Configuration management of publication work flow

#### ❖ Data Module System

- Support for S1000D Version 4.0
- Partial Task Data Modules
- Scheduled Data Module
- S.E./Supplies/Spares RefDM Link
- Support For Trade Element

### MMIS includes the following major enhancements:

❖ **No Longer Require Oracle Reports Server:** Major reports have been re-written so that the Oracle Reports Sever is not required.

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❖ **Un-Serviceability System:** Allows for finer control and monitoring of standard operating procedures and work instructions, and requires each operation to be signed off on and approved at multiple levels. Useful for programs that require detailed audit tracking for safety critical aircraft, transportation, and warfare operation related repairs.

❖ **Support for I.E. 8.0 and FireFox**

❖ **Document System Improvements**

- Document functionality revised
- Document Viewer speed increased
- Shows sub documents in viewer
- Shows number of sub documents in finder
- Added ability to upgrade sub document to a document

❖ **Test Equipment Improved**

- Added ability to load and maintain test equipment data in MMIS from the
- Menu -->Project Setup --> Test Equipment Finder
- MMIS now collects Test Equipment change history data
- Improved screen interface to allow a user to assign test equipment to a Traveler Route Operations from the Traveler Route screen

❖ **Employee Maintenance**

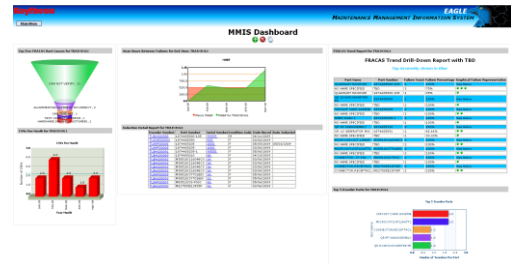
- Employee information fields can now be synchronized across all End Items granted to that employee
- Employee security tightened to only allow EAGLESA or EAGLE to add End Items to employee
- Employee site maintenance screen redone for product consistency and to allow sites to be quickly added to an employee
- Added site filter to Employee Site Maintenance screen to deal with End Items with large number of sites

❖ **User Security Screen Enhanced**

- Users can now be cloned (End Items, custom menus)
- Security tightened so only EAGLE and EAGLESA can add/modify/delete End Items for user accounts

- User account status now displayed with button to allow lock and unlock user's account by EAGLE/EAGLESA
- Users can now be cloned (End Items, custom menus)

❖ **Dashboard System:** The MMIS Dashboard is designed to allow users to see relevant data on the User's MMIS home page. Each User can customize their MMIS Dashboard with Dashboard Reports and Dashboard Items relevant to their use of MMIS. The Dashboard is controllable by End Item and User ID.



EAGLE MMIS Dashboard

**EAGLE Web includes the following major enhancements:**

❖ **Finder Enhancements**

- Faster Queries
- Drill Down to Child Records from any record displayed
- Child Record Existence noted in drill down for each record
- Collapsible Columns
- Row Highlighting

❖ **Edit Enhancements**

- Full Key Change Functionality
- Clone Record with Child Records Functionality
- Clone Record Functionality
- Drill Down to Child Record Finders with Current Record Keys
- Child Record Existence noted in drill down for each record
- Enhanced Error Highlighting

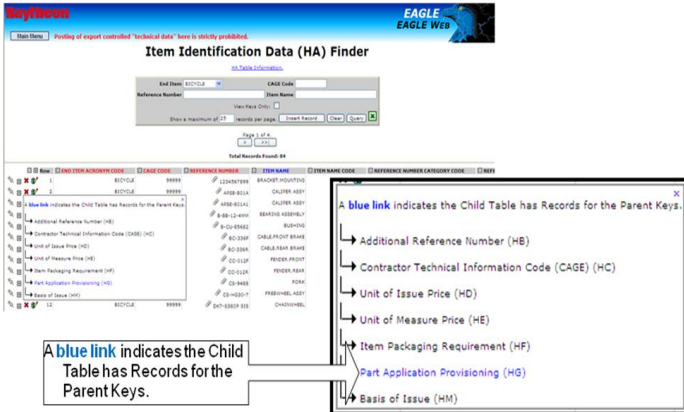
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EAGLE Web Data Finder with Child Record Indication

For more information on EAGLE / MMIS, contact:

Anthony Zucco at 520-545-6885

Email: [raytheoneagle@raytheon.com](mailto:raytheoneagle@raytheon.com)

<http://www.raytheonlogisticstools.com>

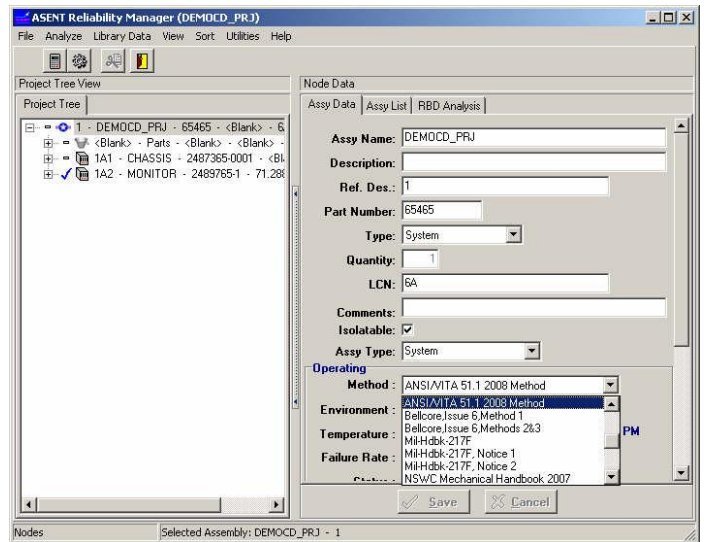


## ASENT 2009 – Reliability Predictions Made Easy

Version 2009 of ASENT was just released, and is now being distributed to all users currently under software maintenance. The new version has the ability to be web-accessible when configured on a Citrix server, and is compatible with MS SQL Server 2008, Microsoft Vista and the latest version of Microsoft Office.

ASENT 2009 contains far too many new features to cover in this short article. Many enhancements were made throughout the tool suite, but much of the focus for this release was on simplifying reliability predictions, and some of the highlights will be mentioned in this article.

A new failure rate prediction method, based on ANSI/VITA 51.1-2008, has been added to the long list of existing methods currently supported by ASENT. This prediction method is based on MIL-HDBK-217F, Notice 2, but uses more realistic quality factors for commercial parts. Also, it has expanded gate, transistor, and bit counts to better handle today's microcircuits and microprocessors.



### ANSI/VITA 51.1 2008 Prediction Method

A new report has been added that allows you to generate upper confidence level failure rates. This supports the method found in Telcordia SR-332, Issue 2. The report's output is an Excel file that has built-in formulas. This provides you with a very flexible tool, where you can further tailor your data to perform rapid trade-offs. The figure below shows a sample output of the report where the confidence level was set to 85%.

Failure Rate Upper Confidence Level Report										
Project: TELCORDIA2 - Telcordia SR-332 test project										
MTBF: Lower Conf Level 85%										
Date: 08/24/2009										
Item Name: TELCORDIA2										
MTBF: 8,151.85										
FPMH: 122.6722773										
Part Refs	Part Number	Description	PI E	Includes PI E	Lambda SS	FR PI E	Lambda G	PI E * Qty	PI E * Qty	CI * PI EF
C001	CLR-X	100UF 100V	6	0.0228240	0.00371373	0.00360000	0.0228240	0.0250000	0.01500000	0.0002500
C002	CLR-X	100UF 100V	6	0.0228240	0.00371373	0.00360000	0.0228240	0.0250000	0.01500000	0.0002500
CT9	NA	Wires Connections	6	1.0000000	0.1666667	0.0000000	1.0000000	0.2100000	0.2600000	1.6670000
C003	1000000-0001	CAPACITOR CP	6	0.0289170	0.0463362	0.00510000	0.0289170	0.0250000	0.01900000	0.0003624
C002	1000000-0003	CAPACITOR CZ	6	0.0483182	0.00072030	0.00070000	0.0483182	0.0004000	0.00144000	0.0000207
C003	1000000-0004	CAPACITOR CV	6	0.0483182	0.00072030	0.00070000	0.0483182	0.0004000	0.00144000	0.0000207
C0034	1000000-0006	CAPACITOR CHR	6	0.0289170	0.0463362	0.00510000	0.0289170	0.0250000	0.01900000	0.0003624
C0035	1000000-0007	CAPACITOR CFR	6	0.0284720	0.0047455	0.00480000	0.0284720	0.0013000	0.00076000	0.0000061
C0036	1000000-0008	CAPACITOR CRH	6	0.0284720	0.0047455	0.00480000	0.0284720	0.0013000	0.00076000	0.0000061
C0037	1000000-0009	CAPACITOR CMR	6	0.00416048	0.00089841	0.00040000	0.00416048	0.00030000	0.00160000	0.0000024
C0039	1000000-0012	CAPACITOR CTR	6	0.00532058	0.00086977	0.00050000	0.00532058	0.00030000	0.00160000	0.0000032
C0010	1000000-0013	CAPACITOR CSR	6	0.0104491	0.0017415	0.00020000	0.0104491	0.00039000	0.00023400	0.0000005
C0011	1000000-0014	CAPACITOR CCR	6	0.0104491	0.0017415	0.00020000	0.0104491	0.00039000	0.00023400	0.0000005
C0012	1000000-0015	CAPACITOR CSR	6	0.0088008	0.00080001	0.00090000	0.0088008	0.00020000	0.00130000	0.0000010
C0013	1000000-0016	CAPACITOR CLR	6	0.0228240	0.00371373	0.00360000	0.0228240	0.0250000	0.01500000	0.0002500
C0014	1000000-0017	CAPACITOR CE-486 JCS	6	0.1664730	0.0276780	0.01400000	0.1664730	0.00480000	0.00300000	0.0000009
C0015	1000000-0018	CAPACITOR CE-398 MLSTD	6	0.1966600	0.0329467	0.02100000	0.1966600	0.01900000	0.00600000	0.0001000

Upper Confidence Failure Rates

We have improved ASENT's ability to import product trees or Bill of Material (BOM) lists from Excel files. The product\_tree.xls template that is provided with ASENT now includes a 'Part Type' column. This information is used to create new project unique parts, if you specify the 'Create Missing Parts' option, when the parts do not already exist in the library.

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Item Type	Part Type	Description	Part Number
SYSTEM	N/A	System Node	
ASSEMBLY	N/A	Desktop Chassis	1-0001
BOARD	N/A	Mother Board	2-0001
BOARD	N/A	Sound Card	2-0007
PART	Semiconductor, General Purpose Diode	General Purpose Diode	JANTX1N1204A
PART	Semiconductor, General Purpose Diode	E5342M06B4K70R	342M06B4-K70R
ASSEMBLY	Semiconductor, General Purpose Transistor	Inch Display Monitor	0-0002
ASSEMBLY	Semiconductor, Laser Semiconductor	DX1 ASSEMBLY	49494949499494
PART	Semiconductor, Microwave Diode	Digital Microcircuit Desc.	534949494949494
	Semiconductor, Opto-Electronic Devices, Alpha Num		
	Semiconductor, Opto-Electronic Devices, Isolator		
	Semiconductor, Opto-Electronic Devices, LED		

New Product Tree Template

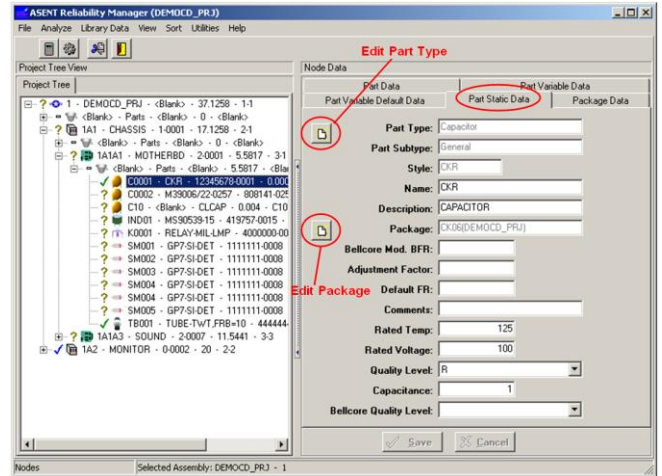
When importing your product tree from Excel you can set the default project library that is used for locating parts, and tell ASENT whether or not to create missing parts.



Importing Product Tree from Excel

These new import features allow you to quickly import your entire product tree structure or BOM into ASENT even if some of the part numbers are unknown. The missing parts will be created for your project during the import process. Later, you can quickly tailor your data, as you refine your reliability prediction.

In addition to being able to edit part library data with ASENT's Component Data Manager, you can now edit much of this data in the Reliability Manager, while working with your reliability predictions. To do this just select a part and click on the 'Part Static Data' tab. If the part resides in a project library that you are assigned to, then you can edit any of the data by changing the values and clicking on the Save button. From here, you can also change a part's type, subtype and style, along with its package data. Variable or application data can be easily modified for any part by selecting the 'Part Variable Data' tab.



Refining Part Data

In addition to new prediction methods, reports, import and editing capabilities, we have also enhanced some of the viewing options commonly used when working on reliability predictions. In ASENT's Reliability Manager you have always been able to tailor your tree display by selecting the fields that are shown, but now you can also choose the order in which they are displayed.

Plus, the enhanced 'Assembly List' view, shown in the following figure, now includes columns for the indenture level, name, LCN, operating failure rate, and the percentage that this failure rate contributes to the overall system failure rate. By viewing the data in this manner you can quickly identify which items contribute most to your system's failure rate, and give those items extra attention as you perform your analysis, so that you can mitigate potential risks. Also, much of this data is editable from here, allowing you to quickly touch up reference designators or other field values.

ASENT Reliability Manager (DEMOCD\_PRJ)  
File Analyze Library Data View Sort Utilities Help  
Node Data  
Asy Data Asy List RBD Analysis  
Indenture Name Description Ref. Des. LCN Part Number Op FR % Sys FR  
0 DEMOCD\_PRJ System Node 1 1:1 1:0000 37.125790 100.0000  
1 CHASSIS Desktop Chassis 1A1 2:1 1:0001 17.125790 46.129  
2 MOTHERBD Mother Board 1A1A3 3:1 2:0001 9.581690 15.035  
1 MONITOR 20 Inch Display Monitor 1A2 2:2 0:0002 20.000000 53.871  
2 SOUND Sound Card 1A1A3 3:3 2:0007 11.544100 31.095

New Assembly List View

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This article just begins to scratch the surface of the capabilities found in the latest version of ASENT.

We will be hosting a series of telecons and online demos to introduce ASENT 2009. Please contact us if you would like to arrange a special session for your group or company.

For further information on ASENT, or to arrange an online demo, please contact:

Rich Herman at: 972-344-6179  
Email: [rherman@raytheon.com](mailto:rherman@raytheon.com)  
<http://www.raytheoneagle.com/asent>

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### Latest Version of Our Tools:

<a href="#">AIMSS</a>	4.9.1 (July, 2009)
<a href="#">ASENT</a>	2009 (June 2009)
<a href="#">EAGLE</a>	8.1.0 (September 2009)
<a href="#">MMIS</a>	8.1.0 (September 2009)

