



**Logistics Management Associates**  
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**Model-Based Product Support and Predictive Maintenance**  
**Extending**  
**Model-Based Systems Engineering**  
**22-24 May 2024**

The years 1973-1983 represent one of the most significant technical transitions experienced in centuries as we moved from a paper-based industry to a computer-based environment. Computer databases replaced paper solutions. This transition was monumental for processes and products in reducing cost and maximizing results. Over the 40 years from 1983 to 2022, we have continually refined and enhanced this transition; however, we continue working within a paper-concept limiting set of boundaries. An Excel spreadsheet is still just a big piece of digital paper. Every computer program still has a "Print" function.

We are on the cusp of a generational evolution. Model-Based Product Support when implemented as a natural extension of Model-Based Systems Engineering represents a quantum leap into the future. Predictive maintenance is the next step. However, coming to grips with the concept of paperless, totally digital model-based thinking challenges us all.

**Course Overview:** The transition from a paper to a digital environment is a reality for the future of system design and sustainment. Model-based Systems Engineering (MBSE) works. It is a proven method to streamline system development and address complex issues. Model-based Product Support (MBPS) is the next step in combining product design with product sustainment. Model-Based Product Support must be conjoined with Model-Based Systems Engineering to encompass the total life cycle of a system, and Predictive Maintenance is the next progression advancement.

This course is a comprehensive study of how MBPS must be implemented as an extension of MBSE in a cost-effective manner to improve operational availability while controlling total cost of ownership. Predictive Maintenance is seen as the key to achieving these aims. The course focuses on how to obtain the maximum benefit for the least investment in time and money.

A significant benefit of this course is resolving the myths and fairytales that have surrounded the MBPS process and Predictive Maintenance. MBPS is simply an extension of MBSE. At the completion of this course students will understand that MBPS is a comprehensive method of combining MBPS with MBSE so that sustainment and cost of ownership can be considered as a natural progression of the evolving design process, rather than an after the fact follow-on effort. This combined MBSE+MBPS+Predictive Maintenance approach provides design engineers and systems engineers with dynamic assessment of the design from concept through sustainment.



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The focus of the course is to provide a detailed understanding of MBPS+MBSE+Predictive Maintenance. So the target audience is Program Managers, Operations Planners, Systems Engineers, Design Engineers, RAMTOS (reliability, availability, maintainability, testability, obsolescence and safety), Product Support Managers (both acquisition and sustainment), IPS Product Developers, This presentation is equally important to both Government and Contractor staff. The ideas discussed are equally applicable to defense, aerospace, and similar sectors where long-terms sustainment of complex systems is mandatory for success. Portions of the course discuss;

1. How MBPS + MBSE + Predictive Maintenance thinking can enhance the systems engineering and design engineering activities during acquisition,
2. Linking product support as an integral part of design and test so the design community has constant visibility of system availability potential and possible total cost of ownership.
3. The overarching management challenge of actual management of a paperless program.
4. Adapting the design to changing operational and environmental requirements.
5. Adapting the sustainment solution to shifting operational requirements.
6. Using MBPS+MBSE+ Predictive Maintenance to improve Operational Reliability,
7. How to manage a program with no CDRLs.

UML/SysML and associated available tools for implementing MBPS+MBSE will be mentioned but are not the focus of the course.

Programming experience is not required nor needed to get full benefit from this course.

#### **Course Focus:**

The Concept of "Model-Based"  
Why Model-Based is so different from Paper-Based  
Using MBSE as the foundation for MBPS  
How MBPS should be a natural extension of MBSE  
The Concept of Predictive (Prognostic) Maintenance  
Understanding the actual benefits achievable by implementing MBPS + MBSE + PPM  
Organizational and Corporate thinking changes  
Discussion of current "piecemeal" implementation approaches  
The first real step toward implementation success  
Challenges of Transition  
What to do with Legacy programs

A virtual/on-line presentation using Microsoft Teams 0900-1700 EDT (USA NY)

**Course Fee:** US\$ 995

**Register at:** [conference@log-mgmt.com](mailto:conference@log-mgmt.com)



## Registration Form

Name \_\_\_\_\_

Email \_\_\_\_\_

Company/Organization \_\_\_\_\_

Contact Telephone \_\_\_\_\_

Please register me for:

- Model-Based Product Support + Predictive Maintenance  
22-24 May 2024 (\$995)
  - CLEP/SOLE Active Member Discount 10%
  - Early Bird Discount 10% (received before 1 May 2024)

Payment Method:

- Visa/MC/Amex
  - Name on Card \_\_\_\_\_
  - Card Number \_\_\_\_\_
  - Expires \_\_\_\_\_
  - CVC \_\_\_\_\_
  - Billing ZIP/Post Code \_\_\_\_\_
- PayPal
  - Send invoice to (email): \_\_\_\_\_
- SF182 (USN/USMC) (attached)

Send completed registration form to:

Email: [conference@log-mgmt.com](mailto:conference@log-mgmt.com)

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