

"The OMG Systems Modeling Language (OMG SysML™)" Tutorial Part 1



Chesapeake Chapter
INCOSE
International Council on Systems Engineering

Presented by:

Mr. Sanford Friedenthal

Member OMG,

Co-Chair of SysML Standardization WG

Saturday, 27 February 2010

8:30am – 5:00pm

Location: Kossiakoff Center

Johns Hopkins University / Applied Physics Laboratory

11100 Johns Hopkins Road

Laurel, MD 20723

Tutorial: "Systems Modeling Language (SysML)"

The OMG Systems Modeling Language (OMG SysML™) is a general-purpose graphical modeling language for specifying, analyzing, designing, and verifying complex systems that may include hardware, software, information, personnel, procedures, and facilities. In particular, it provides graphical representations with a semantic foundation for modeling system requirements, behavior, structure, and parametric equations that can integrate with a broad range of engineering analysis. SysML represents a subset of UML 2.0 with extensions needed to satisfy the requirements of the UML™ for Systems Engineering RFP.

This tutorial provides an introduction to how SysML can address the needs of the systems engineer. It includes background and motivation, an overview of the SysML diagram types and language concepts, and selected sample problems to demonstrate how the language can be used as part of a typical SE process. The SysML specification was developed in response to requirements by a diverse group of tool vendors, end users, academia, and government representatives. The OMG SysML™ Specification was adopted in May 2006. For more information, go to <http://www.omgSysml.org/>.

Speaker: Mr. Sanford Friedenthal, Lockheed Martin

Sanford Friedenthal was a leader of the Industry Standards effort through the Object Management Group (OMG) and INCOSE to develop the Systems Modeling Language (OMG SysML™) that was adopted by the OMG in 2006. Sanford is co-author of the book "A Practical Guide to SysML". He continues to lead the efforts for Industry adoption of SysML and Model-Based Systems Engineering (MBSE).

Mr. Friedenthal currently leads an effort to enable model based systems development (MBSD) and other advanced practices across the Lockheed Martin in support of the Corporate Systems and Software Initiative (SSI). His experience includes the application of systems engineering throughout the system life cycle from conceptual design, through development and production on a broad range of systems in aerospace and defense. He has been a systems engineering department manager, and a lead developer of advanced systems engineering processes and methods including the Lockheed Martin Integrated Enterprise Process and the Object-Oriented Systems Engineering Method (OOSEM).

Tutorial Cost: \$60.00 including continental breakfast and lunch for Tutorial Part 1. **Optional:** Copy of "A Practical Guide to SysML" obtained by INCOSE-CC for this Tutorial: \$40.00 (Qty limited, first come-first serve).

***** Space Limited to 35 persons *****

Reservations: Reservations will be taken on a first come first serve basis. To register for the meeting, contact Dave Griffith at d.griffith@ngc.com. To pay by credit card or PayPal, visit our website: <http://www.incose.org/chesapek>; or to pay by USPS, mail checks (payable to INCOSE-CC) to **Dave Griffith, PO Box 142, Linthicum, MD 21090-0142**. **All checks must be received NLT Wednesday, 24 February, prior to start of tutorial.** If paying by check, please confirm with Dave at the email address above prior to mailing.

Payment: Payment will be arranged at the time of your registration acceptance.

"The OMG Systems Modeling Language (OMG SysML™)" Tutorial Part 1

Cancellation Policy: If you make a reservation and then find that you will be unable to attend, please notify us not later than COB Monday, 22 February, to avoid liability for payment for the tutorial.

Directions:

JHU APL, 11100 Johns Hopkins Road, Laurel, Maryland 20723, Phone (443) 778-5000

See APL's Visitor Guide for more: <http://www.jhuapl.edu/newscenter/visitor/default.asp>

From Washington DC and Capital Beltway (I-495):

Take I-95 North toward Baltimore, 10 miles to Columbia exit (MD Route 32 West),
Go 2.5 miles to the Washington DC exit (US Route 29 South).
Go 1.5 miles south and take Johns Hopkins Road exit (bear right at the top of the hill).

Or from the Capital Beltway (I-495):

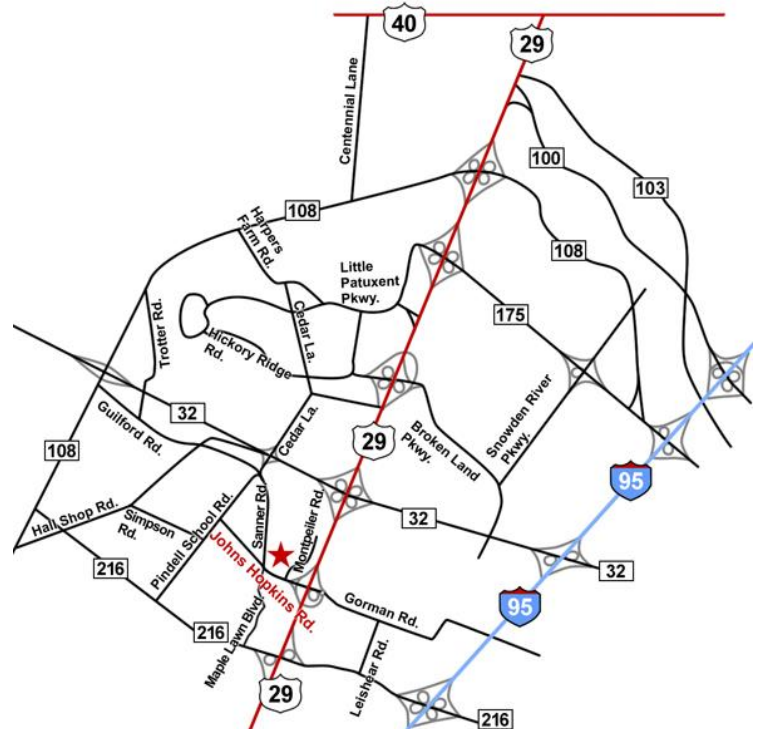
Take US Route 29 North (Colesville Road) 10 miles and follow signs for the turn onto Johns Hopkins Road.

From Baltimore and Baltimore Beltway (I-695):

Take I-95 South toward Washington DC.
Go 13 miles and take Columbia exit (MD Route 32 West).
Go 2.5 miles and take Washington DC exit (US Route 29 South).
Go 1.5 miles south and take Johns Hopkins Road exit (bear right at the top of the hill).

Once you're on Johns Hopkins Road:

APL is a half-mile west of US Route 29 on your right side. Turn in at the first entrance, continuing past the pond on your left and park in the lower visitor's lot on your right side. Enter at the Kossiakoff Center (the building directly behind the pond) and go to the classrooms on the left.



"Object-Oriented Systems Engineering Method (OOSEM)" Tutorial Part 2



Presented by:

Mr. Sanford Friedenthal

Member OMG,

Co-Chair of SysML Standardization WG

Sunday, 28 February 2010

8:30am – 5:00pm

Location: Kossiakoff Center

Johns Hopkins University / Applied Physics Laboratory

11100 Johns Hopkins Road

Laurel, MD 20732

Tutorial: "Object-Oriented Systems Engineering Method (OOSEM)"

This tutorial will introduce an Object-Oriented Systems Engineering Method (OOSEM), which integrates a top down systems approach with object oriented concepts and modeling techniques. This methodology uses the extension to UML for systems engineering called the OMG Systems Modeling Language (OMG SysML™). OOSEM brings to Systems Engineering a technique for leveraging some of the expressiveness of SysML and the advantages of OO to help architect more flexible, extensible, and upgradeable systems with new evolving technology. Another major goal of OOSEM is ease of integration with object-oriented methods for software engineering, and integration with hardware engineering and other disciplines. The tutorial will provide an overview of the model based method for needs analysis, requirements analysis, logical design, physical design, and supporting activities.

NOTE: *It is recommended that you take OMG SysML™ Tutorial (Part 1) on Saturday, February 27 or that you have had experience with UML or SysML, before you take OOSEM Tutorial (Part 2) on Sunday.*

Speaker: Mr. Sanford Friedenthal, Lockheed Martin

Sanford Friedenthal was a leader of the Industry Standards effort through the Object Management Group (OMG) and INCOSE to develop the Systems Modeling Language (OMG SysML™) that was adopted by the OMG in 2006. Sanford is co-author of the book "A Practical Guide to SysML". He continues to lead the efforts for Industry adoption of SysML and Model-Based Systems Engineering (MBSE).

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Tutorial Cost: \$60.00 including continental breakfast and lunch for Tutorial Part 2. **Optional:** Copy of "A Practical Guide to SysML" obtained by INCOSE-CC for this Tutorial: \$40.00 (Qty limited, first come-first serve).

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