



Object-Oriented Systems Engineering Method (OOSEM) One-Day Tutorial Saturday, May 15, 2004 Instructor: Sanford Friedenthal

If you are interested in:

- Using UML to model system-level requirements and design
- How object-oriented techniques can serve the systems engineer
- Integration of systems engineering and software-modeling techniques

Then this tutorial is for you!

The method utilizes a top down systems approach, in conjunction with object-oriented (O-O) concepts and adaptations of Unified Modeling Language (UML), to implement the system process from: needs analysis, through system requirements analysis, system design, and verification. Based upon the widely known (UML), this method brings object-oriented (O-O) modeling to the systems engineering community, and adapts it for modeling systems-level requirements and design. A major goal of OOSEM is to ease integration with object-oriented methods for software engineering, and to exploit object oriented techniques for specifying and designing complex systems. Early applications have shown promising results. This tutorial will introduce participants to the OOSEM method by describing basic object-oriented concepts, system level activities, and how UML is adapted to address system level concerns. Important concepts and issues will be illustrated by application to a sample problem. An earlier version of this tutorial was given at the INCOSE Symposium in Washington DC in July, 2003. Topics covered include:

- A comparison of systems and software engineering perspectives
- An overview of UML and object-oriented concepts
- An in-depth overview of OOSEM activities and models
- A summary of tool support requirements and future directions

Intended Audience:

Attendees should have experience in systems engineering, or have participated in the systems engineering process as a member of an integrated product team (e.g. software engineer, hardware engineer, specialty engineer, test engineer, etc.), or in commercial product design. Alternatively, the attendee should have academic experience with systems engineering or related disciplines. **It is also assumed that the attendee has been introduced to UML***. It is recommended that the student read the following paper "Adapting UML for an Object Oriented Systems Engineering Method" at

<http://www.omg.org/cgi-bin/doc?syseng/2001-09-05>

If you have not been introduced to UML, we recommend you look over an introduction, such as the one offered by the OMG, or any of several good tutorials offered by vendors of UML tools, such as:

- http://www.omg.org/gettingstarted/what_is_uml.htm
- <http://www.cragssystems.co.uk/ITMUML/index.htm>
- <http://www-306.ibm.com/software/rational/uml/>
- <http://www.ajug.org/info/tech/uml/uml.html>
- http://www.sparxsystems.com.au/UML_Tutorial.htm



Date: Saturday, May 15, 2004

Time: 8 AM to 5 PM (includes registration and an hour for a lunch; lunch is provided)

Place: San Jose State University Engineering Auditorium

For directions to the SJSU Engineering Auditorium go to http://www.sjsu.edu/about_sjsu/campus_maps/

Deadline: Deadline is May 11th, 2001 (Although walk-ins will be accepted through May 16th on a space-available basis). Space is limited. Be sure to enroll early.

Cost per Person	Registered By 15 Apr 04	Registered By 11 May 04	Walk-In
Students			
Help with Event	\$0	\$10	N/A
Members	\$20	\$30	\$35
Non-Members	\$30	\$40	\$50
INCOSE Members	\$120	\$150	\$160
Non-INCOSE Members that Join INCOSE	\$ 220, which includes: \$ 120 plus \$ 100 Membership (thru 6/05)	\$ 250, which includes \$ 150 plus \$ 100 Membership (thru 6/05)	\$ 260, which includes: \$ 160 plus \$ 100 Membership (thru 6/05)
Non-INCOSE Members	\$150	\$180	\$190

ENROLLMENT AND CONTACT INFORMATION ON NEXT PAGE

For Tutorial Registration Info, contact Bill Reed at 650-578-1751, <mailto:billreed1@aol.com>

For INCOSE Membership Information, see us on the World Wide Web at <http://www.incose.org/>

Find information about our local chapter at <http://www.incose.org/sfbac/>

About the Instructor

Sanford Friedenthal. Mr. Friedenthal's experience includes the full system life cycle from conceptual design, through development and production on a broad range of systems including missile systems, electro-optical navigation and targeting systems, and information systems. Mr. Friedenthal has been a manager for systems engineering at Lockheed Martin responsible for ensuring systems engineering processes are implemented on the programs, and enhancing overall systems engineering capability. He has been a lead developer of advanced systems engineering processes and methods including the Lockheed Martin Integrated Engineering Process, the Software Productivity Consortium's Integrated Systems and Software Engineering Process, and the Object-Oriented Systems Engineering Method (OOSEM). Mr. Friedenthal is the liaison between INCOSE and OMG, and chairs the OMG Systems Engineering Domain Special Interest Group (SE DSIG) to support development of a UML profile for System Engineering.



Enrollment Information: Enrollment may be made by organizations or individuals. Enrollment is limited. We recommend non-members consider a membership in INCOSE and pay the lower tutorial fee.

How to Enroll: Fill out and mail the enrollment form provided or register on-line at <http://www.123signup.com/calendar?Org=INCOSE>. The full fee must accompany enrollment. Acceptable forms of payment will be personal checks, bank drafts, and money orders (payable to "INCOSE - SFBAC"); and via the Internet, credit cards (at <http://www.123signup.com/calendar?Org=INCOSE>). Sorry, purchase orders are not accepted. If paying by company check and you would like to "reserve" a place in the tutorial, remit a personal check and attach a note to hold for company payment.

Confirming Enrollment: If you do not receive an enrollment confirmation via E-Mail 5 days prior to the scheduled date of the tutorial, please call Bill Reed (650-578-1751).

Cancellation Policy: Full refunds will be made prior to May 2nd, after which 50% refunds will be given through May 9th. No refunds will be made after May 9th; however, substitutions are permitted. INCOSE San Francisco Bay Area Chapter reserves the right to cancel the tutorial with full refunds.

Enrollment Packets: A confirmation notice and an enrollment information package will be provided, which will include directions and a map to the classroom location as well as parking information and a phone number to be used in an emergency. Course material will be distributed on the day of the tutorial at the registration desk. Registration begins at 8:00 AM. The course is scheduled to begin at 9 AM and end at 5 PM.

Morning Coffee and Lunch are Provided: A one-hour working lunch is scheduled. Lunch will be provided. If you have special dietary needs, please indicate on the enrollment form.

*For a list of membership benefits visit the Web (<http://www.incose.org>)

Complete registration on-line at <http://www.123signup.com/calendar?Org=INCOSE> or mail completed form and check made out to "INCOSE - SFBAC" to:

INCOSE-SFBAC Chapter Tutorial
c/o Mr. Bill Reed
38 Hobart Ave.
San Mateo, CA 94402-2806

✂ _____ Clip and Submit with Payment _____ ✂

ENROLLMENT FORM (DEADLINE—May 9, 2004)

Name _____ Position _____

Company _____

Mailing Address _____

Day Phone _____ Fax _____

Email _____



Object-Oriented Systems Engineering Method (OOSEM)

One Day Tutorial

Saturday, May 15th, 2004

Instructor: Sanford Friedenthal

Agenda: The Sign-in and tutorial will be held at the SJSU Engineering Auditorium

8:00 – 9:00	Registration and networking
9:00 – 10:30	OOSEM Module 1-3
10:30 – 10:45	Break
10:45 – 12:15	OOSEM Module 4
12:15 – 1:15	Lunch
1:15 – 2:45	OOSEM Module 4 (cont.)
2:45 – 3:00	Break
3:00 – 5:00	OOSEM Module 4 (cont.), 5-7
5:15	Adjourn

San Jose State University Campus Map

One Washington Square - San José, California USA, 95192

