

GSAW 2004 Tutorial II:

An Overview of Software Architecture Practices

Length: Half day

Overview:

This tutorial will introduce the basic concepts of software architecture, how software architecture relates to the business and mission of an organization, and the proven practices involved in architecture-centric development. These practices will address: understanding architectural requirements, creating appropriate software architectures, documenting software architectures, evaluating software architectures, ensuring architectural conformance, and reusing software architectures.

Instructor: Linda Northrop, Software Engineering Institute

Biography:

Linda Northrop is director of the Product Line Systems Program at the Carnegie Mellon University's Software Engineering Institute (SEI), a position she has held since 1995. She leads the SEI work software architecture, reengineering, component and product line engineering. She is co-author of the book, "Software Product Lines: Practices and Patterns," has worked directly on successful software product lines, and chaired both the first and second international Software Product Line Conference (SPLC1 and SPLC2).

She has written extensively about software engineering and object technology and is a frequently invited speaker at technical and corporate conferences. Most recently she was a keynote speaker for the Robert Bosch Software Engineering Conference 2002, the Aspect-Oriented System Development Conference 2002, and the International Conference on Software Engineering 2001. She received the 2001 Carnegie Science Award of Excellence for Information Technology, is the OOPSLA Steering Committee Chair, and was OOPSLA 2001 Conference Chair. Before joining the SEI, she was associated with both the United States Air Force Academy and the State University of New York as professor of computer science, and with both Eastman Kodak and IBM as a software engineer. As a private consultant, Linda also worked for an assortment of companies covering a wide range of software systems.

Description of Intended Students and Prerequisites:

Professionals who design, develop, and/or manage the construction of software-intensive systems.