

***The University of Alabama
Department of Computer Science
Colloquium Series Speaker***

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Clemson University**

Software Product Lines

**Friday, October 27, 2006
11:00a.m., Houser 108**

Abstract:

The software product line approach to the development of software-intensive products is a strategy that has allowed many companies to achieve aggressive business goals. The strategy blends business and technical practices so that even low level decisions can be evaluated in terms of the impact on the business goals of the product line organization. The product line organization manages the variation among the set of products to the benefit of the organization. Careful attention to variation allows organizations to achieve strategically significant levels of reuse; levels of 75 to 85% are not unusual. Variations are initially identified during a thorough domain analysis, used in determining the final product set through economic modeling, and implemented using a variety of implementation techniques. This talk will touch on business issues such as economic modeling and technical issues such as feature modeling, and automatic code generation. This seemingly diverse set of topics shares a common thread – the satisfaction of specific business goals through variability management. The software product line strategy is sufficiently mature to have industrial success stories but is sufficiently immature to be a rich source of research problems. This talk will introduce you to the software product line strategy and relate the strategy to a variety of research areas.

Dr. John D. McGregor is an associate professor of computer science at Clemson University, a Visiting Scientist at the Software Engineering Institute of Carnegie Mellon University, and a partner in Luminary Software, a software engineering consulting firm. His research interests are software product lines and component-based software engineering. He was the chair of the Software Product Line Conference 2006. He is author of numerous articles in software engineering journals such as Communications of the ACM and IEEE Software. He writes the Strategic Software Engineering column for the Journal of Object Technology. Dr. McGregor is author of two books including “A Practical Guide to Testing Object Oriented Software” published by Addison-Wesley. He received his PhD from Vanderbilt University.