Distinguished Seminar

Computer Science Dept. & IEEE Computer Society Student Branch

Design of a Very High Level Programming Language

Dr. David Fisher, Carnegie Mellon Univ.

Feb 22nd Tuesday, 12:30 to 1:30pm

Carver-Turner Room, Havener Center

Abstract - Omega is a very high level programming language with potential to dramatically increase productivity, accuracy, and performance in software development and use. Although it is intended specifically for accurate modeling and simulation and research in emergent behavior, it is a general purpose, declarative, property-oriented, and agent-based language that can be used in a broad spectrum of applications. It enables accurate abstract descriptions of anything and provides specialized notations for function and process descriptions. Omega is derived from and incorporates lessons learned from Easel, an experimental agent-based modeling and simulation language developed and used from 1998 to 2006. The presentation includes design, implementation strategy, and example programs.

Brief Bio - David A. Fisher is currently a Senior Research Scientist in the Software Engineering Institute (SEI) at Carnegie Mellon University where he conducts research on next generation information security. Dr. Fisher has held technical and executive positions in academia, industry, and government. His research interests include modeling and simulation, emergent behavior, and automated reasoning especially as they relate to security, HPC, and socio-technical systems. He has degrees in computer science (Ph.D. Carnegie Mellon 1970), electrical engineering (M.S.E. Univ. of Pennsylvania), and mathematics (B.S. Carnegie Mellon), and is a Senior Life Member of the IEEE.

Free Pizza and Soda