

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



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On the Behavioral Semantics of Real-Time Domain Specific Visual Languages

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Presentation at 11:00 a.m. in SEC 3437, refreshments across the hall in SEC 3438 at 10:45 a.m.

Abstract:

Domain specific visual languages (DSVLs) are becoming commonplace for specifying systems at a high-level of abstraction, using a notation very close to the problem domain and quite intuitive for domain experts. Usually, DSVLs are defined only in terms of their abstract and concrete syntaxes, with no precise semantics—something that may hamper the use of tools to simulate or analyze the produced models. In this talk, we show how rewriting logic, and in particular Real-Time Maude, can be effectively used to provide semantics to realtime DSVLs, and how these Maude specifications can be automatically generated from the visual specifications. The use of Real-Time Maude provides additional interesting benefits, such as being able to simulate the DSVL specifications or to conduct formal analysis on them.

Bio:

José E. Rivera received the MSc degree in Computer Science from the University of Málaga. He is currently a PhD Student at the Department of Computer Science of the University of Málaga. His research interests include model-driven software development and its application to the industrial environment. Contact him at rivera@lcc.uma.es.