



The project „fFORTE—WIT—Women in Technology“ in cooperation with the Business Informatics Group /Faculty of Informatics at Vienna University of Technology invites you to:

WIT-Kolloquium



Execution, Debug and Analysis of QVT-Relations Transformations through Coloured Petri Nets

Prof. Dr. Esther Guerra Sanchez

When? Thursday, 16.12. 2010
16:00—18.00 + refreshments

Where? EI 10 Fritz Paschke HS,
Elektrotechnisches Institutsgebäude,
Gusshausstr. 27-29, Stiege 1, EG

Abstract

QVT is the standard language sponsored by the OMG to specify model-to-model transformations. It includes three different languages, being QVT-Relations (QVT-R) the one with higher-level of abstraction. Unfortunately, there is scarce tool support for it nowadays, with incompatibilities and disagreements between the few tools implementing it, and lacking support for the analysis and verification of transformations. Part of this situation is due to the fact that the standard provides only a semi-formal semantics for QVT-R. In order to alleviate this situation, this talk will present a semantics for QVT-R through its compilation into Coloured Petri nets. The theory of Coloured Petri nets provides useful techniques to analyse transformations (e.g. reachability, model-checking, boundedness and invariant analysis) and to determine their confluence and termination given a starting model.

The talk will also show how CPNTools can be used for the execution, debugging, verification and validation of QVT-R transformations. This is automated through a tool chain that transforms QVT-R specifications and their input models into the input format of CPNTools, and then exports and visualizes the transformation results back as models.

Biography

Esther Guerra is an assistant professor at the Computer Science Department of the Universidad Autonoma de Madrid. Her research interests focus on meta-modelling, formalization of software patterns, and formal techniques in model-driven development primarily for model transformation. She has been a doctoral researcher at the Institute of Theoretical Computer Science (TU Berlin) and at the University of Rome Sapienza, as well as a post-doctoral researcher at the University of York (UK). Her web-page is <http://www.ii.uam.es/~eguerra>.

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NOTE

Attendance free. Lecture in English. No registration required.

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