EXTENDING THE UML TO MODEL SYSTEM FAMILIES

Matthias Riebisch¹, Kai Böllert¹, Detlef Streitferdt¹, Bogdan Franczyk²

¹Ilmenau Technical University
P.O. Box 100565
Max-Planck-Ring 14
D-98684 Ilmenau
Tel ++49/3677/69-1459
{matthias.riebisch | kai.boellert | detlef.streitferdt}@theoinf.tu-ilmenau.de

²tranSIT GmbH Ilmenau
Langewiesener Str. 32
D-98693 Ilmenau
University of Essen
Schützenbahn 70
D-45127 Essen
Tel ++49/201/183-3678
bfr@informatik.uni-essen.de

ABSTRACT

The system family paradigm aims towards developing several applications out of a domain with just one underlying architecture. The foundation of this core architecture are common properties. With this prefabricated core, systems can be build faster. Modeling and development of common parts and variants have to be supported by methods and notations. This paper extends the Unified Modeling Language (UML) to model variants during analysis and design. The built-in extension mechanisms of the UML are used without changing the metamodel. An example demonstrates the application of the extension.