

An Institution for the Not–Java Programming Language

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Abstract. MDE (Model Driven Engineering) advocates creating re–usable *models* rather than just re–usable *modules* of code. There are models represented as UML, models represented as database schemata and models represented as XML (among other representations) — which has lead to the cry ‘models everywhere’ by researchers working in the field [1]. Associated with each representation are artifacts; for example, software metrics in the case of source code. Changes made to one representation affect others and *their* artifacts. However, to the dismay of practitioners, the side-effects of transforming a model in one representation are unpredictable. The cause of this unpredictability is the lack of a formal underpinning for model representations and their associated transformations.

In an attempt to remedy this situation, the authors are developing a framework that formalises some common representations and formally describes the process of a model transformation using the theory of institutions and the notion of an institution morphism respectively [3]. The necessity of these formalisms has been identified by others as well, including Henderson–Sellers [4] and Diskin [2]. This presentation will focus an institution created for a Java–*esque* programming language which forms a part of this framework.

References

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