

Domain-Specific Modeling Languages (DSMLs) are getting more and more attention as a key element of Model Driven Engineering. As any other software artefact, DSMLs should continuously evolve to adapt to the changing needs of the domain they represent. Unfortunately, right now evolution of DSMLs is a costly process that requires changing its metamodel and re-creating the complete modeling environment.

EMF Profiles can be seen as an adaptation of the UML profile concept to DSMLs. Profiles have been a key enabler for the success of UML by providing a lightweight language-inherent extension mechanism which is expressive enough to cover an important subset of adaptation scenarios. We believe a similar concept for DSMLs would provide an easier extension mechanism which has been so far neglected by current metamodeling tools. Apart from direct metamodel profiles, we also propose reusable profile definition mechanisms whereby profiles are defined independently of any DSML and, later on, coupled with all DSMLs that can benefit from these profiles. Our approach has been implemented in a prototype integrated in the EMF environment.

Source Code, Issues, and User Groups

The [source code](#) of EMF Profiles is published under the EPL 1.0 and hosted at a dedicated [EclipseLabs project](#)

. If you experience any bugs, please [report them there](#)

! If you have any questions regarding EMF Profiles, please consult the dedicated [news group](#)

Screencasts of EMF Profiles

[Installing EMF Profiles](#)

[Standard Profile Mechanism](#)

EMF Profiles

Written by Administrator

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[Generic Profile Mechanism](#)

[Meta Profile Mechanism](#)

Screenshot of EMF Profiles

EMF Profiles is used within the project AMOR for defining change and conflict profiles:

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The screenshot shows the Eclipse IDE interface with an EMF Profile diagram. The diagram consists of the following elements:

- ContradictingChange** (Stereotype):
 - user_1
 - user_2
- UpdateUpdate** (Stereotype):
 - UpdateValue_1
 - UpdateValue_2
 - UpdateFeature
- DeleteUpdate** (Stereotype):
 - UpdateFeatures
- EClass** (Class):

Relationships in the diagram:

- UpdateUpdate and DeleteUpdate inherit from ContradictingChange.
- ContradictingChange has a directed association to EClass.

The Properties window at the bottom shows the following details for the selected element:

EMF Profile	Property	Value
	Base	ecore
	Name	ConflictProfile
	Ns Prefix	conflictprofile
	Ns URI	http://conflictProfile



Publications and Talks

- Philip Langer, Konrad Wieland, Manuel Wimmer, and Jordi Cabot: "[From UML Profiles to EMF Profiles and Beyond](#)"

— In Proceedings of the 49th Conference on Objects, Models, Components and Patterns (TOOLS'11), 2011. LNCS 6705, Springer.

- Hugo Bruneliere and Philip Langer: *You need to extend your models? EMF Facets vs. EMF Profiles* at the [Modeling Symposium @ EclipseCon NA 2012](#). [Access slides](#)

- Philip Langer, Konrad Wieland, Manuel Wimmer, Jordi Cabot: "[EMF Profiles: A Lightweight Extension Approach for EMF Models](#)"; Journal of Object Technology, **11** (2012), 1; 29 pages.