WS2017/18 − Model-driven Software Development in Technical Spaces

Metamodeling with the Eclipse Modeling Framework

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1 Eclipse Modeling Framework (EMF)

This exercise provides a small introduction and experience in metamodeling within the **Eclipse Modeling Framework** [1].

1.1 Tasks

In general, the task is to create two metamodels and afterwards creating multiple models for each metamodel.

- The first metamodel should model simple Petri-Nets (i.e., places, transitions, arrows, and colored tokens).
- the second metamodel should model UML state machines (i.e., states, state transitions, conditions, and actions).

Both metamodels must be created as ∗.ecore files and instances as ∗.petrinet and ∗.statechart files, respectively. These files must be handed in on the day before the next exercise.

1.2 Additional Information

- Eclipse Modeling Tools[1], is a prepackaged version of Eclipse including EMF.
- EMF Tutorial[2], is a comprehensive tutorial on the use of EMF.

References

[1] Dave Steinberg, Frank Budinsky, Ed Merks, and Marcelo Paternostro. *EMF: eclipse modeling framework.* Pearson Education, 2008.

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[1] https://www.eclipse.org/downloads/packages/eclipse-modeling-tools/oxygen1a
[2] http://www.vogella.com/tutorials/EclipseEMF/article.html