

Reusing Legacy DSLs with Melange

A tool demonstration

[Thomas Degueule](#), [Benoit Combemale](#), [Arnaud Blouin](#), [Olivier Barais](#)



MELANGE

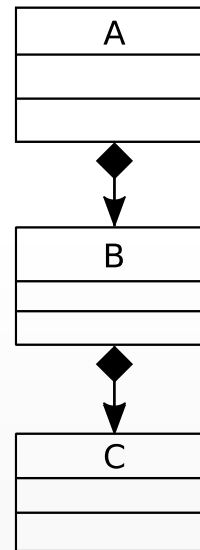
- An open-source (EPL) language workbench
- or... a meta-language for DSL engineering
- or... a language-based, model-oriented programming language

- Based on Xtext
- Seamlessly integrated with the EMF ecosystem
- Bundled as a set of Eclipse plug-ins

LANGUAGE DEFINITION

- A metamodel specifies the *AS*

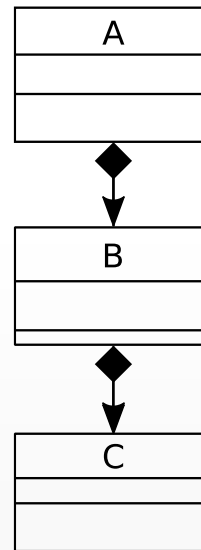
Abstract
Syntax



LANGUAGE DEFINITION

- A metamodel specifies the *AS*
- *Sem* consists of computation steps and runtime data

Abstract
Syntax

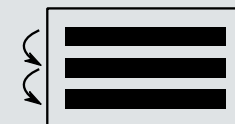


Operational
Semantics

Computation Steps + Runtime Data



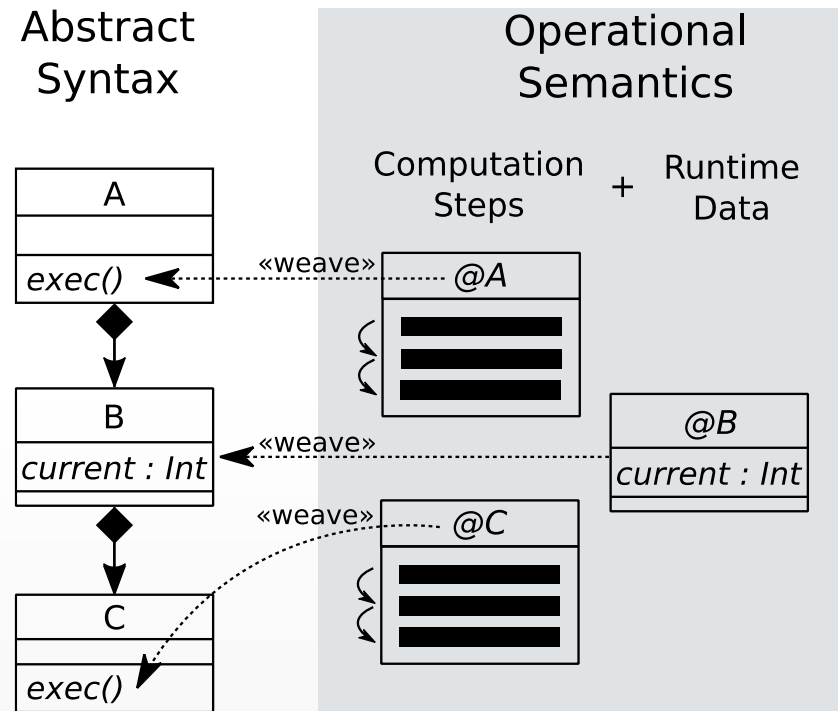
current : Int



LANGUAGE DEFINITION

Jézéquel *et al.*, *Mashup of metalanguages and its implementation in the kermeta language workbench*, SoSyM, 2013

- A metamodel specifies the *AS*
- *Sem* consists of computation steps and runtime data
- Aspect-oriented modeling: *Sem* is *woven* as methods in the *AS*
 - Based on static introduction
- Interpreter pattern



DEMO TIME!

THANK YOU



<http://melange-lang.org>