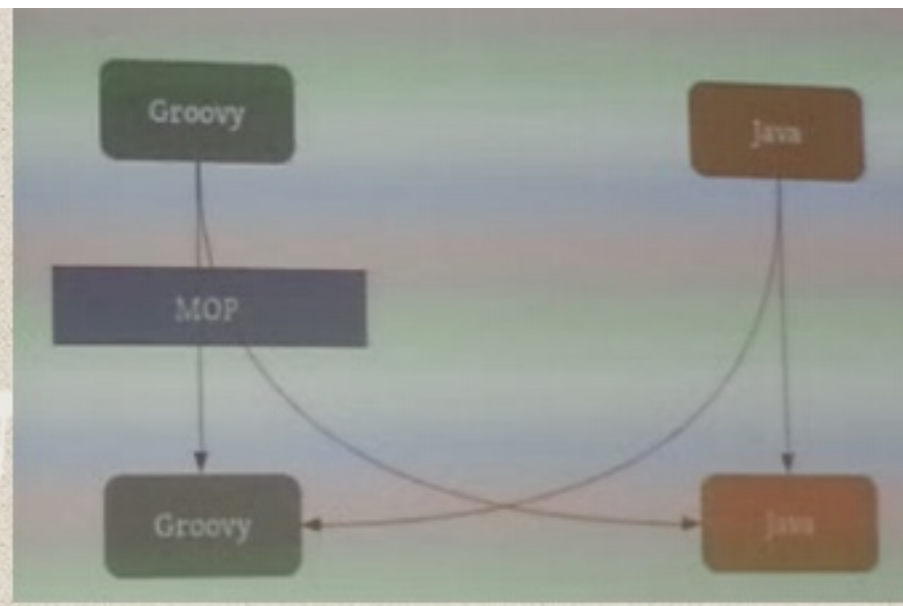


Method Synthesis

invoke Method
method Missing



Metaprogramming
in Groovy
@ilopmar

Compile-time Metaprogramming

- Advanced feature.
- Analyze and modify a program's structure at compile time.
- Cross-cutting features:
 - Inspect classes for thread safety
 - Log messages
 - Perform pre- and postcheck operations all without explicitly modifying the source code.
- We write code that generates bytecode or gets involved during the bytecode generation.

Local AST transform
only applied to
local code

MetaClass

Constructor

Constructors

Can be
added!

Extension
modules

Use
'respondsTo'
to check for
methods

Use a JAR to
add methods to
classes

Categories

— contextual
addition of
methods

- Changes made to a MetaClass are "persistent" and hard to revert.
- Categories are useful to change the meta class in a confined small piece of code.
- A category can alter a class' MetaClass.
- The MOP is modified in the closure and after the closure execution is reset to its old state.
- Category classes are no special.