

A Transformation System for Java

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Language specific transformation tools...

- implement only a fixed set of transformations

or

- allow the user to define new transformations through direct access to the transformation API

User-defined transformations

Using an extension of Java's syntax with meta-programming constructs

- more accessible to Java programmers
- semantics-aware pattern-matching
- more expressive than templates

Contrasts with language independent transformation tools

Transformation language

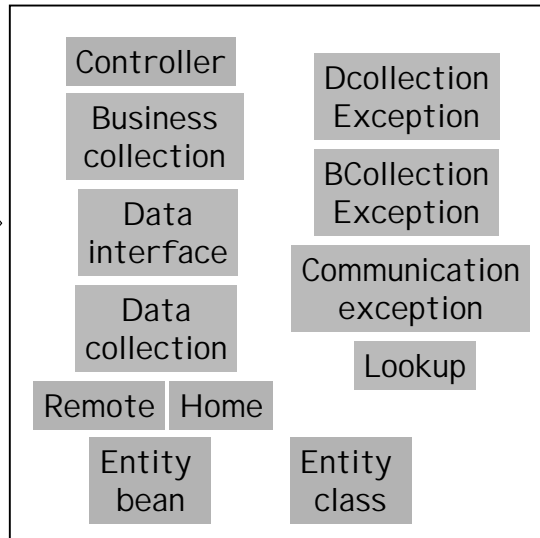
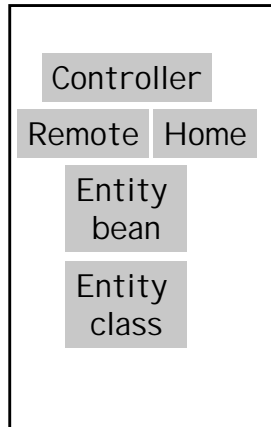
```
class #class [extends #superClass] {  
    public #type #field;  
    #fields;  
    #methods;...  
}
```

Meta-variable for class names

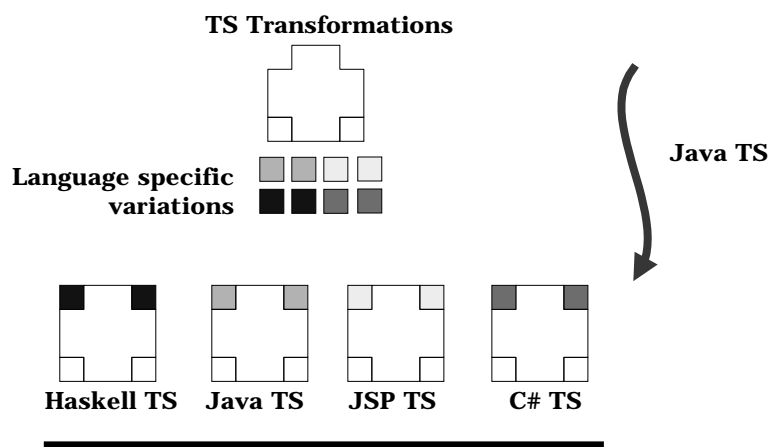
Optional matching

Meta-variable for field declarations

EJB pattern language



Product line of transformation systems



Conclusions

- Accessible and semantics-aware transformation languages
 - extending the syntax of the base language
- Low cost, and small development time, for language specific transformation systems
 - generation of transformation systems