

Directembedding

Concealing the Deep Embedding of DSLs

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June 11, 2015

Overview

- 1 Motivation
- 2 Directembedding
- 3 Case study: slick-direct

Motivation

Mission statement

Enable wider adoption of embedded DSLs

The Struggle

DSL Author

Possible expert, wants full control over DSL behaviour

DSL User

Possible beginner, wants user-friendly interface

Overview

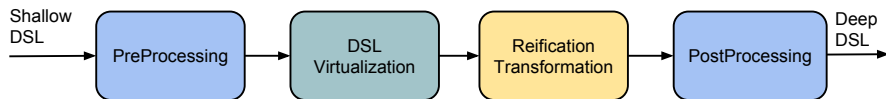
1 Motivation

2 Directembedding

- Architecture
- Language virtualization
- Type overriding
- Improved error messages
- Configuration

3 Case study: slick-direct

Pipeline

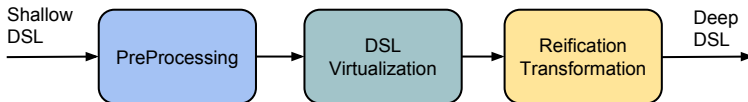


Directembedding transformation

Pipeline

Shallow query

```
query {  
  Query[User].filter(_.name == "Olafur")  
}
```

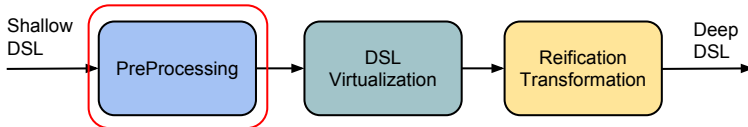


Directembedding transformation

Pipeline

PreProcessing

```
query {  
  Query[User].filter(_.name == "Olafur")  
}
```

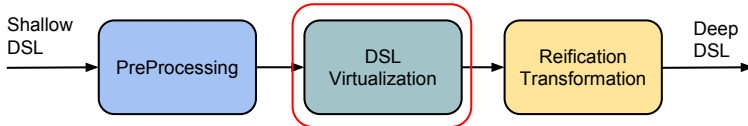


Directembedding transformation

Pipeline

DSL Virtualization

```
query {  
  Query[User].filter(_.name == "Olafur")  
}
```

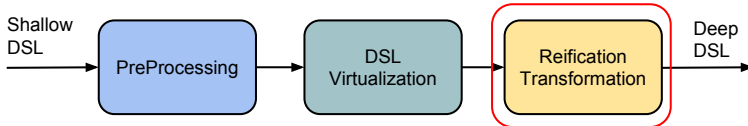


Directembedding transformation

Pipeline

Reification Transformation

```
query {  
  Query[User].filter(_.name == "Olafur")  
}
```



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