Formalizing WebDSL with Statix

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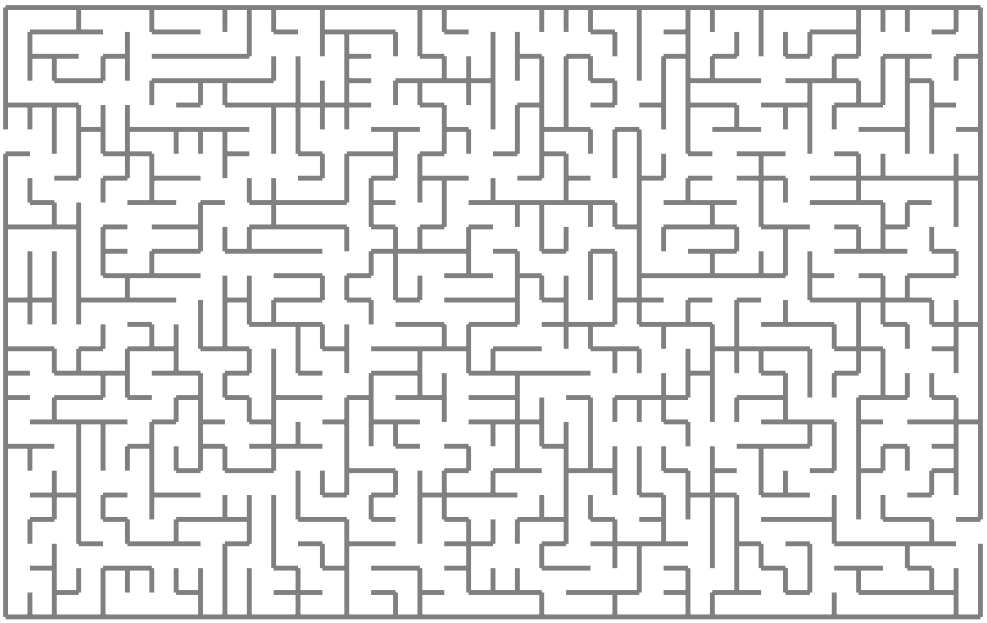

Max Machiel de Krieger

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THESIS

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by

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Formalizing WebDSL with Statix

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Abstract

WebDSL is a domain-specific language for web programming that is being used for over ten years. As web applications evolved over the past decade, so did WebDSL. A complete formal specification of WebDSL has been *TO-DO: check if missing or not updated* since its original development. With the introduction of Statix in the Spoofax language workbench, a declarative language that generates a typechecker, we made an elegant and practical formal semantics for WebDSL.

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Preface

Preface here.

Max Machiel de Krieger
Delft, the Netherlands
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- Key features
- Applications

1.2 WebDSL static semantics

- Product of research; changing frequently

1.2.1 Current implementation

- Spoofax introduction
- SDF3
- Stratego

1.2.2 Problems with current implementation

- Readability (scattered through files, dynamic rules)
- Maintainability (impact of changes can be unclear)

1.3 Statix

1.3.1 Introduction

- Origins
- Predecessors
- Examples

1.3.2 Why Statix will solve the problems

- Declarative and concise syntax that feels like formal specification rules

Chapter 2

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2.2 WebDSL in Statix

Chapter 3

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Acronyms

AST abstract syntax tree

DSL domain-specific language

Appendix A

A