Dependently Typed Languages in Statix

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Abstract

Text

1 Introduction

Spoofax is a textual language workbench: a collection of tools that enable the development of textual languages. When working with the Spoofax workbench, the Statix meta-language can be used for the specification of static semantics.

Dependently typed languages are different from other languages because they allow types to be parameterized by values. This allows more rigorous reasoning over types and the values that are inhabited by a type. This expressiveness also makes dependent type systems more complicated to implement. Especially, deciding equality of types requires evaluation of the terms they are parameterized by.

This goal of this paper is to investigate how well Statix is fit for the task of defining a simple dependently-typed language. We want to investigate whether typical features of dependently typed language can be encoded concisely in Statix.

2 Dependent Type Checking

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3 Name Collisions

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References