Title
McMaster University

Jason Balaci

Submission Date

Abstract

todo

Dedication

todo

Acknowledgements

todo

Contents

Chapter 1

Introduction

1.1 Context: Knowledge Capture & Encoding

todo

1.2 Problem Statement

todo

1.3 Thesis Outline

todo

1.3.1 Capabilities of good knowledge capture, encoding, and usage – Drasil

todo

1.3.2 Drasil introduction

todo

Chapter 2

Background

2.1 Project Focus & Goals

todo

2.2 In practice/Architecture

todo

2.2.1 Chunks

todo

2.2.2 ChunkDB?

todo

2.3 Methodology for locating and encoding knowledge – e.g., "bottom-up" approach

todo

2.4 State of Drasil

todo

2.4.1 Short-term problems – leading into topics

todo

Chapter 3

Topic #1: Typing the Expression Language

3.1 Background: Problem

todo

3.2 Requirements & properties of a good solution

todo

3.3 Solution

todo

3.3.1 Expression encodings discussion (GADTs, TTF)

todo

3.3.2 Dividing expression languages (CodeExpr, Expr, ModelExpr, Literals)

todo

3.4 Continued problem with Expressions – leading into ModelKinds

todo

Chapter 4

Topic #2: ModelKinds – Theory types / discrimination – “Expressions in context”

4.1 Problem

todo

4.2 Requirements & properties of a good solution

todo

4.3 Solution – ModelKinds

todo

4.3.1 EquationalModels

todo

4.3.2 EquationalRealms

todo

4.3.3 EquationalConstraints

todo

4.3.4 DEModel

todo

4.3.5 Continued

todo

Chapter 5

Future Work

todo

Chapter 6

Conclusion

todo

Appendix A

Appendix

todo