Camel

Manual for Version 0.0

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Part I Introduction and Setup

by Sergio Madrid

1 Overview of Camel Library

- 1.1 Design Goals
- 1.2 Core Features
- 2 Installation
- 2.1 Prerequisites
- 2.2 Installation Steps
- 2.3 Verifying the Installation
- 3 Getting Started
- 3.1 Hello World with Camel
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Part II Library Reference

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4	Naming	Conventions

- 5 Core
- 5.1 Memory Management
- 5.2 Data Structures
- **5.2.1** String
- 5.2.2 Stack
- **5.2.3** Queue
- 5.2.4 Dynamic Array
- 5.2.5 Singly Linked List
- 5.2.6 Doubly Linked List
- 5.2.7 Binary Tree
- 5.2.8 Binary Search Tree
- 5.2.9 Hash Table
- 5.2.10 Graph
- 5.3 Expression Parsing
- 5.4 Arbitrary Precision Arithmetic
- 6 Algebra
- 6.1 Linear Algebra
- 6.1.1 Fixed-Size Linear Algebra
- 6.1.2 Variable-Size Linear Algebra
- 6.2 Abstract Algebra
- 7 Calculus
- 8 Geometry
- 9 Number Theory
- 10 Statistics

Part III Performance

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Every single function in the library has been tested for performance. The following sections provide a detailed analysis of the performance of each function.

Part IV Examples

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- 11 Basic Examples
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