

Contribution:C

Not C/C++

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<http://101companies.org/wiki/Contribution:c>

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1. Overview

- ▶ Implementation Language: C
- ▶ Building and Testing: CMake
- ▶ Features:
 - ▶ Hierarchical Company
 - ▶ Cut, Depth, Median, Total
 - ▶ Parsing, Unparsing

2. “Object” Model

- ▶ No OO Support
- ▶ Instead: Structured Programming
 - ▶ State: Plain Old Data
 - ▶ Operations: Functions with Pointers

3. Graph Traversal

- ▶ Most Features Traverse Object Graph
- ▶ Solution: Visitor Pattern
 - ▶ Common, Idiomatic C
 - ▶ Function and Void Pointers
 - ▶ Used for Cut, Depth, Median, Total, Parsing, Unparsing

4. Parsing and Unparsing

- ▶ Huge Library Support
- ▶ Still Complicated in C:
 - ▶ Lack of Containers
 - ▶ No Reflection
 - ▶ String Handling is Bonkers
- ▶ Solution: Just Use Another Language

4. Parsing and Unparsing

- ▶ Lua
 - ▶ Embedded Scripting Language in C89
 - ▶ Stack-Based C Interface
 - ▶ “Table” Container (Hash/Array Combination)
 - ▶ Conversion to JSON, XML, YAML etc.

4. Parsing and Unparsing

- ▶ Parsing:
 - ▶ Traverse Lua Table
 - ▶ Calls to C to Build Object Graph
- ▶ Unparsing:
 - ▶ Traverse Object Graph
 - ▶ Calls to Lua to Build Table

Thank You All For Listening

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