



A simple, fun, small and fast
scripting programming language

Agenda

- Overview
- History
- Data types
- Object Oriented Programming
- Error Handling
- Coroutines
- Package management & libraries

Overview

- an extension/embeddable language
 - ~20 keywords ~20 operators
 - ~24k lines of C
 - Lua interpreter ~246K
 - Lua library ~421K
- Fast
 - Interpreted Lua is slightly faster than python, ruby and php
 - LuaJIT is in C++ territory
- Similar to JS with ruby syntax
- Easy Lua <-> C interop
- Coroutines (~Ruby fibers)
- First-class functions
- Prototyped OO, meta programming

History

- Designed, implemented, and maintained by the Pontifical Catholic University, Rio de Janeiro, Brazil.



Escape from Monkey Island



World of Warcraft



Angry Birds



Industry



redis



CLOUDFLARE

NGINX



Data types

- number, bool, string, nil
- functions (first class)
- tables
- arrays
- user data
- threads / coroutines

Object Oriented

- Prototyped based
- Meta-tables

Error handling

- There are no exceptions
- Convention is to return nil and an error (string)
- error, assert and pcall

Coroutines

- Similar to Ruby fibers

LuaJIT

- FFI: Foreign Function Interface

Package management

- require & modules
- package table (loaded & paths)
- luarocks.org
- <https://github.com/uhub/awesome-lua>