Lua - Summary

# Overview

* Cross platform, extension program language – extends the functionality of existing software
* Developed by Roberto Ierusalimschy, Luiz Henrique de Figueiredo, and Waldemar Celes
* Programming language is similar to other languages
* ‘Lua’, opposite of the Portuguese word ‘Sol’ (sun)
* Won the 2011 Game Developer Magazine Front Line Award

# Programming Syntax

* Formatting is not strict (\*ahem\* Python)
* Semicolons optional
* Relatively common syntax
* 1-based arrays (arrays start at 1)
* No difference between integers and floats
* Undefined values become nil.

# Variables

* Variables aka identifiers store data
* Global variables – publically accessible
* Local variables – accessibly only in its nest
* Naming – Alphanumeric + Underscore; Cannot start with a digit; Cannot be a Lua keyword

# Memory Management

* Memory leak -> less available ram -> crash?
* Garbage Collection – Automatic memory management

# Advantages

* Prototyping
* Shorter development time
* Compiled at runtime
* Lightweight (overhead) (\*cough\* Java)
* Relatively simple and easy to read syntax (pseudocode)

# Applications

* VLC Player
* TeamSpeak 3
* Garry’s Mod
* CryEngine 2
* Adobe Photoshop Lightroom
* World of Warcraft
* LEGO Mindstorms NXT