20 Years of Lua

Fabio Mascarenhas, DCC/UFRJ

The Beginning of Lua: 1993

- Tecgraf - a partnership between PUC-Rio and Petrobras
  - strong culture of tool development
  - inheritance from the Brazilian market reserve
- Two programs with configuration problems, each with its own limited mini-language
- Idea: a generic configuration language
  - First version of Lua, baptized Lua 1.0 in retrospect

Lua at Tecgraf

- Good acceptance
- Language soon spread to several other applications
  - In one year, ~30 programmers
- No immediate impact outside Tecgraf
  - No big success case outside Tecgraf
  - “a language from PUC?”

International Exposure

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Newsgroups:
      comp.compilers,comp.lang.misc,comp.programming,comp.lang.c
From: lhf@csg.uwaterloo.ca (Luiz H de Figueiredo)
Organization: Computer Systems Group, University of Waterloo
Keywords: tools, available
Date:       Fri, 8 Jul 1994 11:51:45 GMT

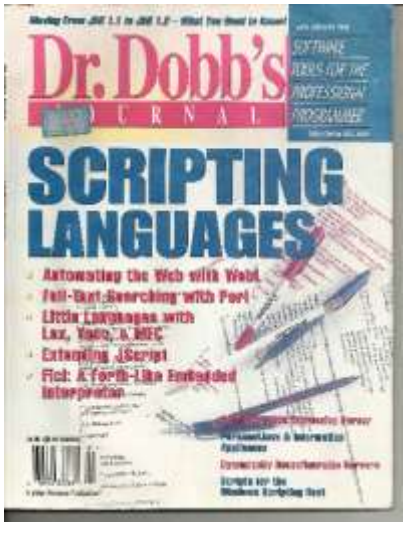
This is the first public release of Lua.

* What is Lua?
Lua is a simple, yet powerful, language for extending applications. Lua
has been developed by TeCGraf, the Computer Graphics Technology Group of
PUC-Rio, the Catholic University of Rio de Janeiro, Brazil. Dozens of
industrial products developed by TeCGraf use Lua.
[…]
```

First International Publications

- R. Ierusalimschy, L. H. de Figueiredo, W. Celes. Lua --- an extensible extension language. Software: Practice & Experience, 26(6):635-652, 1996.

- L. H. de Figueiredo, R. Ierusalimschy, W. Celes. Lua: an extensible embedded language. Dr. Dobb's Journal, 21(12):26-33, 1996.



Growth

- Cameron Laird, SunWorld Magazine, 1998:
  - “Its user base is also small; there might be **only a few tens of thousands of Lua programmers in the world**. They're very fond of this language, though, and the imminent explosion of ubiquitous embedded processing (computers in your car, in your plumbing, and in your kitchen appliances) can only work in favor of Lua.”
- Big use in embedded systems: Samsung (TVs), Cisco (routers), Logitech (keyboards), Olivetti (printers), Océ (printers), Ginga (Brazilian TV middleware), Verizon (set-top boxes), Texas Instruments (calculators Nspire), Huawei (cell phones), Sierra Wireless (M2M devices), …

Scripting the Internet of Things

November 2011: Sierra Wireless, IBM, Eurotech, and the Eclipse Foundation establish an M2M Industry Working Group to ease the development, testing, and deployment of machine-to-machine solutions.

Wikipedia

- Slashdot, Feb 1, 2012: "*Wikipedia Chooses Lua As Its New Template Language*"
- Wired, March 19, 2013: "*Meet Wikipedia, the Encyclopedia Anyone Can Code*"
- "*As of this weekend, anyone on Earth can use Lua [...] to build material on Wikipedia and its many sister sites, such as Wikiquote and Wiktionary.*"

Lua in Games (the beginning)

From: Bret Mogilefsky <mogul@lucasarts.com>
To: "'lua@icad.puc-rio.br'" <lua@icad.puc-rio.br>
Subject: LUA rocks! Question, too.
Date: Thu, 9 Jan 1997 13:21:41 -0800

Hi there...
After reading the Dr. Dobbs article on Lua I was very eager to check it out, and so far it has exceeded my expectations in every way! It's elegance and simplicity astound me. Congratulations on developing such a well-thought out language.

Some background: I am working on an adventure game for the LucasArts Entertainment Co., and I want to try replacing our older adventure game scripting language, SCUMM, with Lua.

Lua in “AAA” Games

- Lucas Arts, 1998: First AAA game to use Lua

What happened next

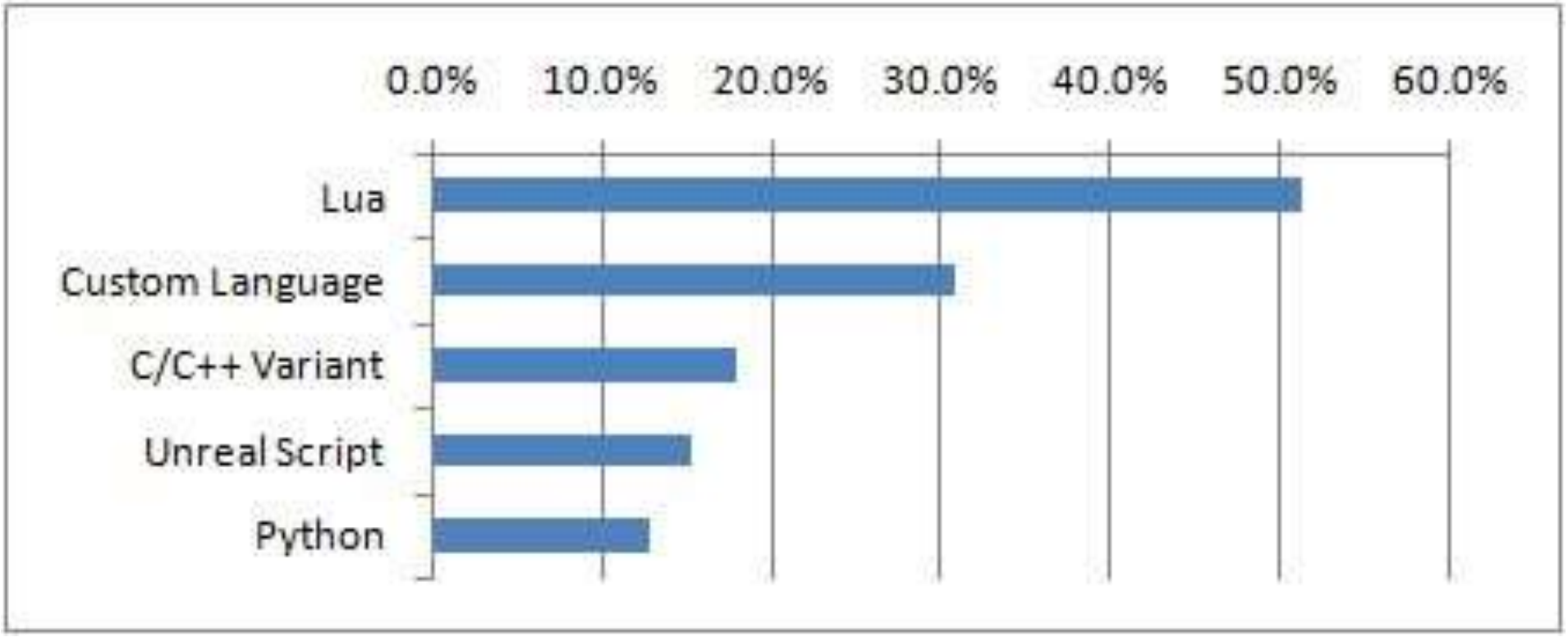
- Game of the year...almost
  - Half-Life relegated us the Adventure Game of the Year
- GDC 1999 (2000?)
  - Panel discussion of scripting languages
    - Rob Huebner on embedding Java
    - Kevin Bruner on interpreted C++
    - Seamus McNally on not using a scripting language
  - 200 miserable people
  - “Or you could just use Lua...”
  - Furious scribbling

Bret Mogilefsky, Lua workshop 2005

Lua in Games

- The Engine Survey (Mark DeLoura, 03/02/09,Gamasutra)

- What script languages are most people using?



COMPANY OF HEROES

UNIVERSE AT WAR

DUNGEONS

Tap Tap Revenge

BLITZKRIEG

MONOPOLY TYCOON

DRIVER

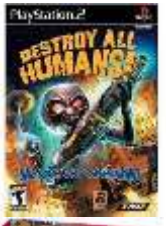
ROBLOX

The Lord of the Rings Online

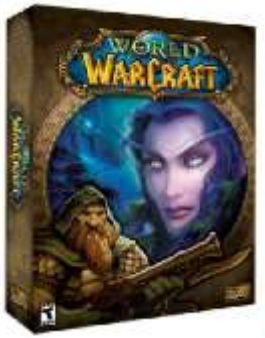
REQUIEM

GRIM FANDANGO

sniper

HULK

DESTROY ALL HUMANS!

Baldurs Gate


WORLD WARCRAFT

FARCRY

IMPOSSIBLE CREATURES

STALKER

Blossom

NFL FEVER

soul ride

Diner Dash 2

NATURAL SELECTION 2

ALLODS ONLINE

SIMCITY 4

ANGRY BIRDS
PLAY

SpellForce

NAPOLEON
TOTAL WAR

SUPREME COMMANDER

There

BRÜTAL LEGEND

BUZZ! Quiz TV

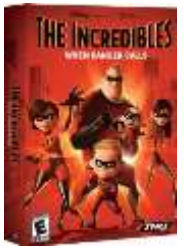
CRIMSON

MOH 2

CRYSIS

SUPREME COMMANDER
Forged Alliance

HOMEWORLD

PSYCHONAUTS

THE INCREDIBLES

SONIC

THE WITCHER

CRACKDOWN

STAR WARS

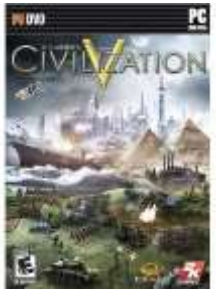
PlayStation Home

1

DUNGEONS

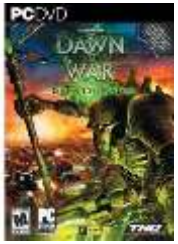
The Guild 2

MONKEY ISLAND

EMPIRE
TOTAL WAR

CIVILIZATION V

plus+

CRACKDOWN

HEROES V

DAWN OF WAR

YOU ARE EMPTY

Bubble
Ball

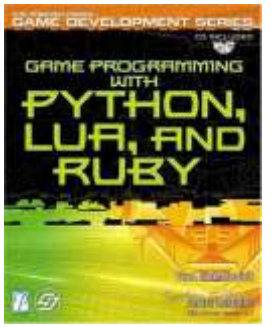
Books

Beginning
Lua Programming

GAME DEVELOPMENT
with LUA

スクリプト言語による
効率的ゲーム開発

Learn
Lua for iOS Game
Development


GAME DEVELOPMENT SERIES
GAME PROGRAMMING
WITH
PYTHON,
LUA, AND
RUBY

入門
Luaプログラミング
Lua

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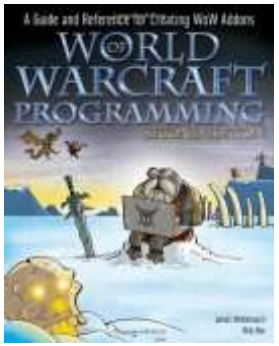
Lua
プログラミング

LE GUIDE DE LUA
ET SES APPLICATIONS


WORLD
OF
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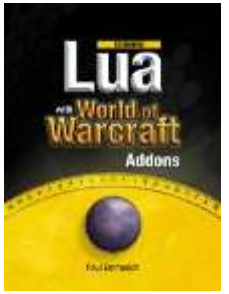
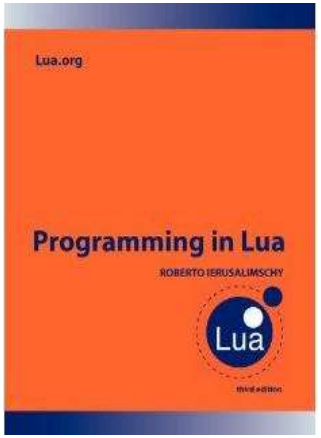
PROGRAMMING

Basic
ROBLOX
Lua
Programming

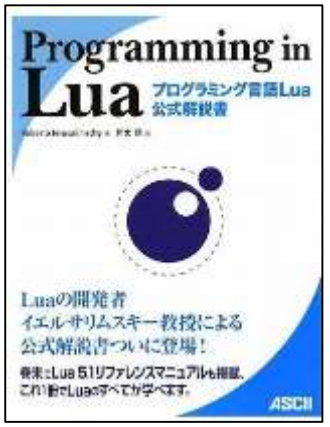

Lua
with World of Warcraft
Addons

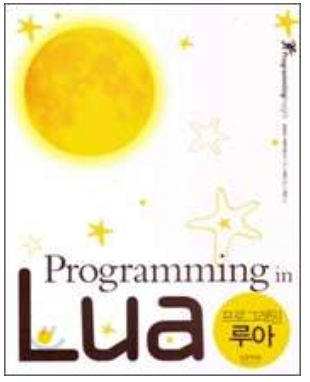
Corona SDK Mobile Game
Development
Beginner's Guide

COMPUTERCRAFT:
PROGRAMMING LUA
IN MINECRAFT


Lua.org
Programming in Lua
ROBERTO IERUSALIMSCHY
Lua

Programmieren
mit Lua


Programming in
Lua
プログラミング言語Lua
公式解説書
Luaの開発者
イエルサリムスキー教授による
公式解説書ついに登場!
ASCII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Lua
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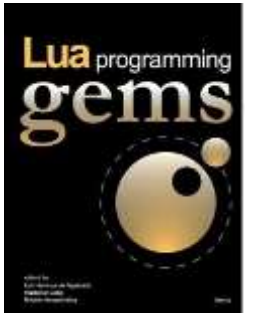
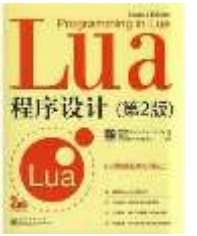
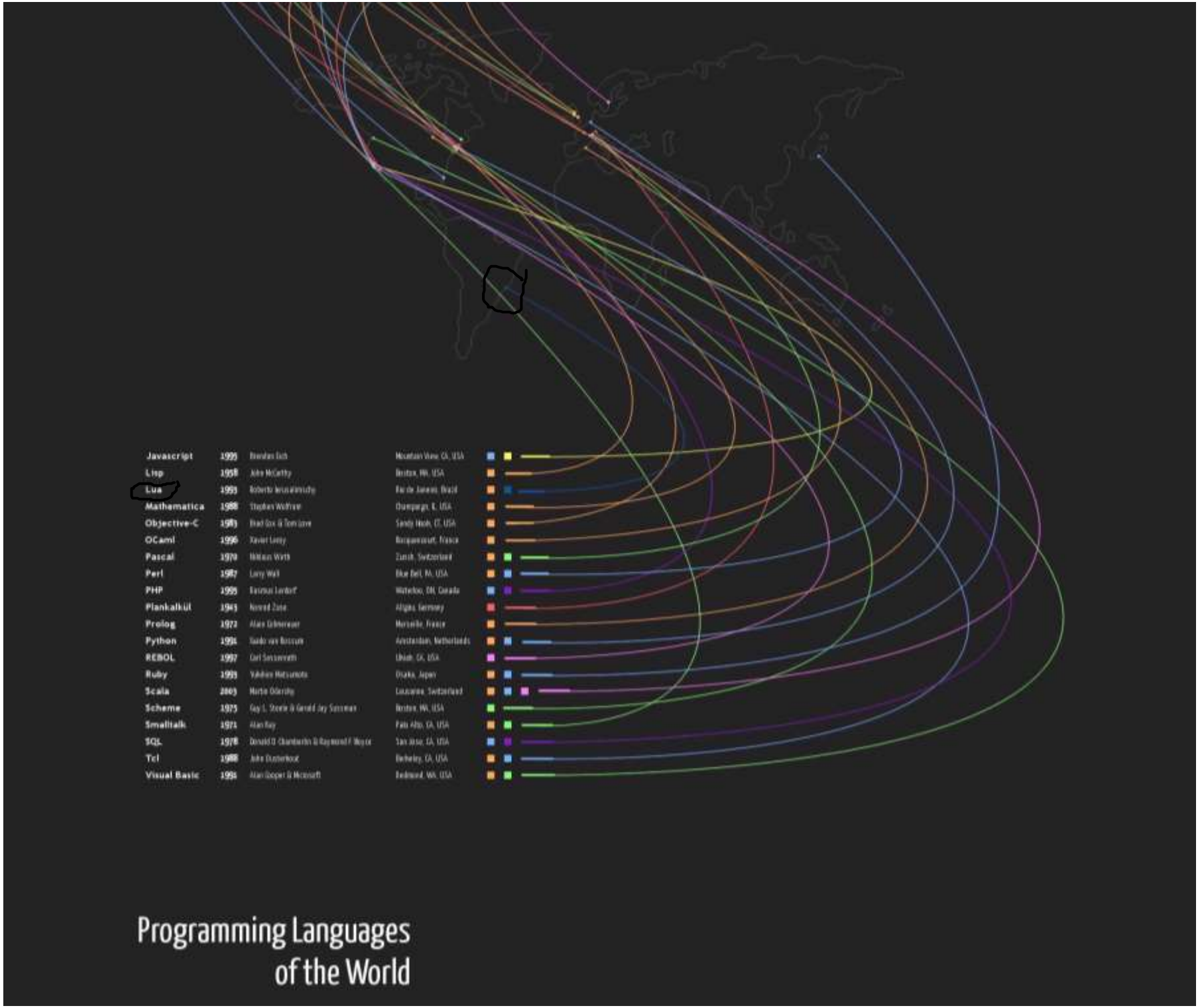

Lua programming
gems


Lua
程序设计 (第2版)
Lua


Javascript 1995 Brendan Eich Mountain View, CA, USA
Lisp 1958 John McCarthy Boston, MA, USA
Lua 1993 Roberto Ierusalimschy Rio de Janeiro, Brazil
Mathematica 1988 Stephen Wolfram Champaign, IL, USA
Objective-C 1983 Brad Cox & Tom Love Sandy Hook, CT, USA
OCaml 1996 Xavier Leroy Rocquencourt, France
Pascal 1970 Niklaus Wirth Zurich, Switzerland
Perl 1987 Larry Wall Blue Bell, PA, USA
PHP 1995 Rasmus Lerdorf Waterloo, ON, Canada
Plankalkül 1943 Konrad Zuse Alsgau, Germany
Prolog 1972 Alain Colmerauer Marseille, France
Python 1991 Guido van Rossum Amsterdam, Netherlands
REBOL 1997 Carl Sassenrath Ukiah, CA, USA
Ruby 1993 Yukihiro Matsumoto Osaka, Japan
Scala 2003 Martin Odersky Lausanne, Switzerland
Scheme 1975 Guy L. Steele & Gerald Jay Sussman Boston, MA, USA
Smalltalk 1971 Alan Kay Palo Alto, CA, USA
SQL 1978 Donald D. Chamberlin & Raymond F. Boyce San Jose, CA, USA
Tcl 1988 John Ousterhout Berkeley, CA, USA
Visual Basic 1991 Alan Cooper & Microsoft Redmond, WA, USA
Programming Languages
of the World

Thanks

www.lua.org