Overview of Current Programming Languages and their Uses

Cornelia Boldyreff, PhD, FBCS, FHEA

Visiting Professor at the University of Greenwich

http://corneliaboldyreff.co.uk

- A Short History of Programming Languages
- Current Programming Languages used in FLOSS
- History of Python

A Short History

- Although Ada Loverlace is often described as the world's first programmer for her specification of a method of calculating certain numbers to used on Babbage's Analytical Engine, Konrad Zuse is usually credited with developing, "Plankalkul" ca. 1945, the forerunner of modern programming langauages (see http://www.catb.org/retro/plankalkuel/).

- Jean E Sammet wrote the classic book: Programming languages: history and fundamentals, Prentice-Hall, 1969.

- Thomas J. Bergin and Richard G. Gibson, History of Programming Languages, ACM Press, 1996.

- Tony Hoare, Federico Biancuzzi and Shane Warden, Masterminds of Programming: Conversations with the Creators of Major Programming Languages, 2009, featuring the creator of Python, Guido van Rossum (see http://www.python.org/~guido/).

Site Search ...

Home · Directions · Conta

Computer History Museum

Visit Us   Exhibits   Explore   Get Involved   Venue Rental   Events   @CHM

Explore

» Overview

Collections

» Overview

» Research

» Donate Historical Materials ⊟

» Audiovisual Requests

Search the Collection

» Catalog Search

» Oral Histories

» Archival Finding Aids

» Computer Chess

» DEC PDP-1

» Fairchild Notebooks

» Fortran Archive

» IBM Stretch

» Marketing Brochures

Fellow Awards

» Fellow Awards

» 2013 Fellow Awards

▶ Jean Sammet

2001 Fellow

For her contributions to the field of programming languages and its history.

❝ From childhood on I hated to throw papers away. As I became an adult this characteristic merged with my interest in computing history. As a result I created important files and documents of my own, and became concerned with having other people publish material on their important work so the facts (rather that the myths) would be known publicly.

—Jean Samm

Biography

Jean Sammet was born in New York, New York, in 1928. She holds a B.A. in mathematics from Mount Holyoke College (1948), an M.A., also in mathematics, from the University of Illinois (1949), and an honorary doctorate from Mount Holyoke

Volume 4 / Number 1 / January, 1961

Communications of the (ACM)

Charting the History

- Éric Lévénez's up-to-date Chart covering 50 key languages at http://www.levenez.com/lang/
- The basis of O'Reily's History of Programming Languages (up to 2004) at http://oreilly.com/pub/a/oreilly/news/languageposter_0504.html
- The Language List maintained by Bill Kinnersley lists around 2500 Programming languages at http://people.ku.edu/~nkinners/LangList/Extras/langlist.htm

(FIPS)
6

Modula 3
1988

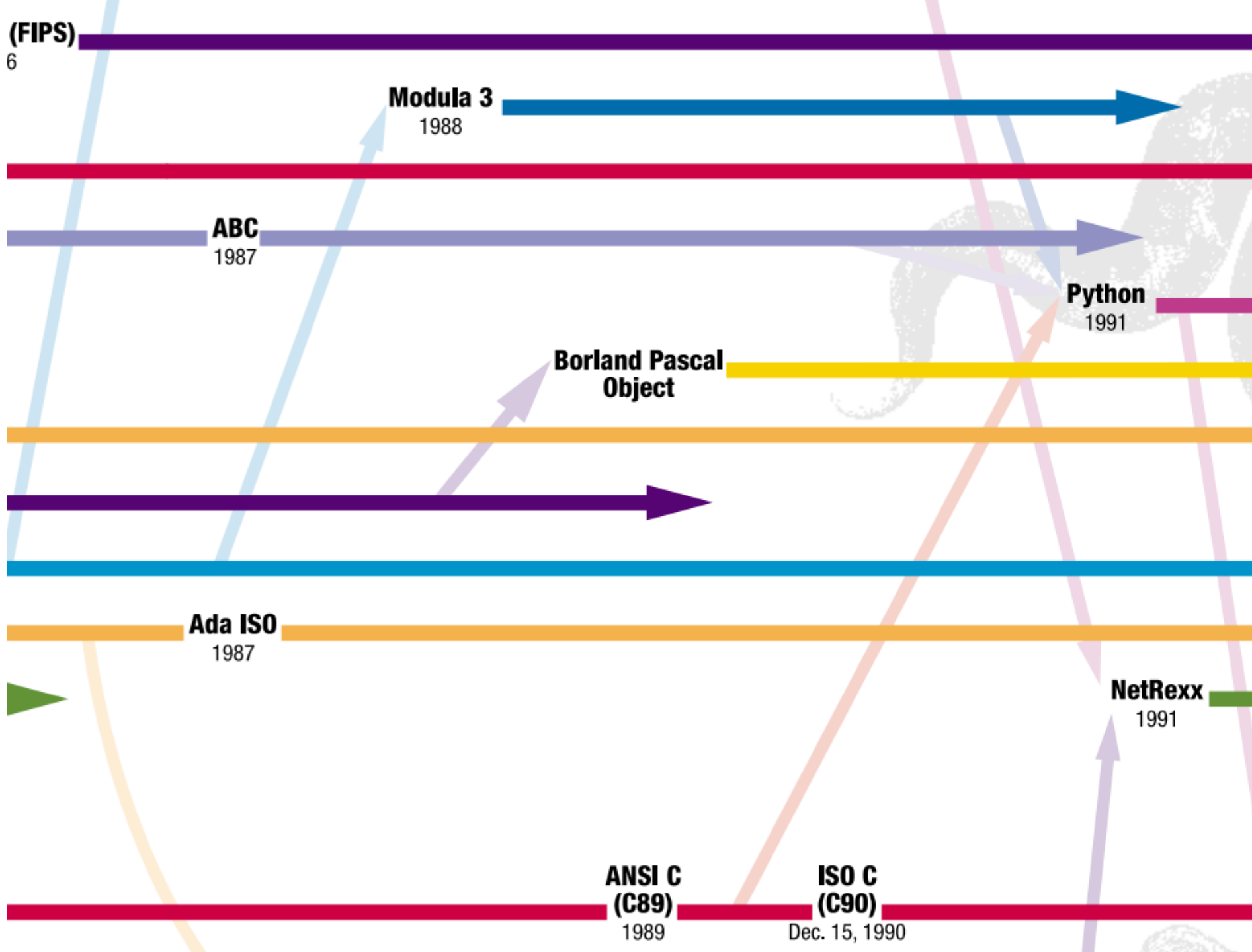**ABC**
1987

Python
1991

Borland Pascal Object

Ada ISO
1987

NetRexx
1991

ANSI C (C89)
1989

ISO C (C90)
Dec. 15, 1990

FLOSS Languages

- The Top 10 Programming Languages on GitHub can be found here (note Python is joint 3rd): https://github.com/languages

- On Source Forge, between 2000 and 2006, the top language was Java followed by C++ and C with Python at position 6: http://wismuth.com/lang/languages.html

- Chart posted on FLOSS Mole in 2009 (Python risen to position 5): http://flossmole.org/content/june-2009-what-are-top-programming-languages-used-projects-listed-sourceforge

om/languages

Top Languages
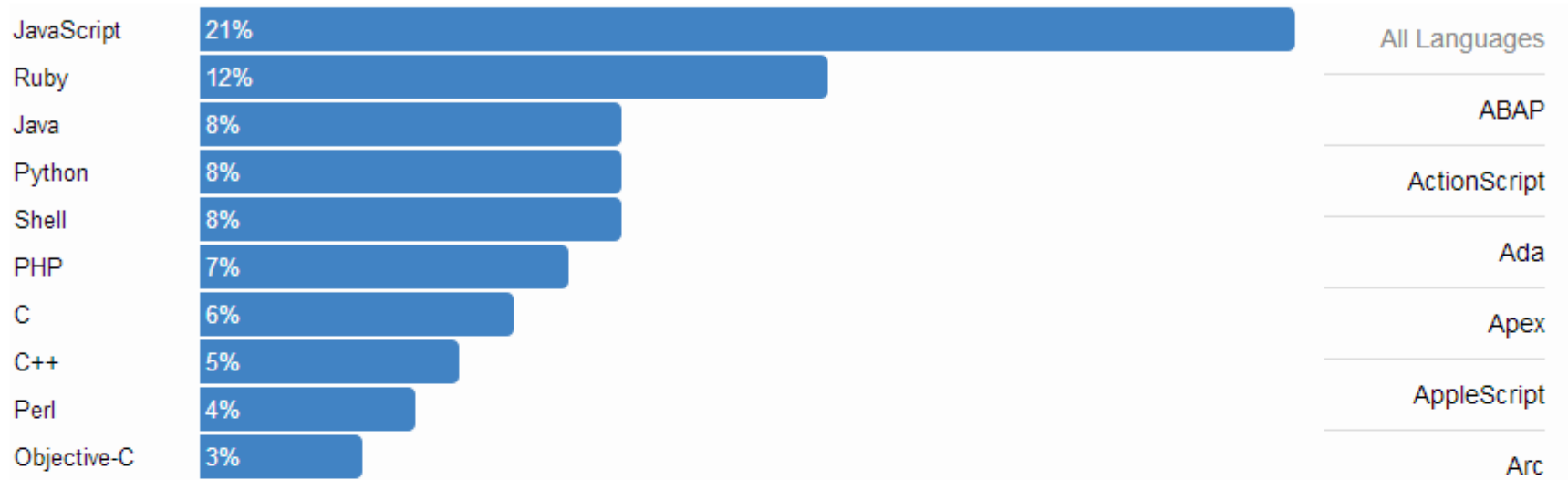
Explore	Repositories	Languages	Timeline

JavaScript	21%		All Languages
Ruby	12%		ABAP
Java	8%		ActionScript
Python	8%		Ada
Shell	8%		Apex
PHP	7%		AppleScript
C	6%		Arc
C++	5%		Arduino
Perl	4%		ASP
Objective-C	3%		Assembly
			Augeas
			AutoHotkey

History of Python

- Python was developed about the same time as Tim Berners-Lee was developing the W3 software which made the web possible.
- Both were available to the public in the early nineties: Python in 1991, W3 software in 1993.
- Today Python is recognised as one of the major programming languages on and off the web.
- Michael Ogawa's Code Swam video showing the evolution of Python and its developer community through a visualisation of the project's commit history, see http://vimeo.com/1093745.