

Minikursus i C-programmering

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Program

12:30 –12:40	Velkommen
12:40–13:10	Brush-up af C
13:10–13:40	Opgaver/pause
13:40 –14:10	Libraries i C
14:10–14:40	Opgaver/pause
14:40 –15:10	Udviklingsværktøjer til C
15:10–15:40	Opgaver/pause
15:40 –16:10	Introduktion til PSS Ubuntu Sandbox og Linux-kernemoduler

- Cirka-tider, med undtagelse af de røde tider
- Opgaveregning her i lokalet
- Pauserne styrer man selv
- Helst pause udenfor lokalet

Motivation (eller demotivation?)

Hvorfor lære et sprog, der er 38 år gammelt?

... er designet til implementering af systemsoftware?

... er "gammeldags" imperativt?

... ikke har indbygget garbage collection?

... ikke har et stort standard library?

... er skyld i mange sikkerhedsproblemer?

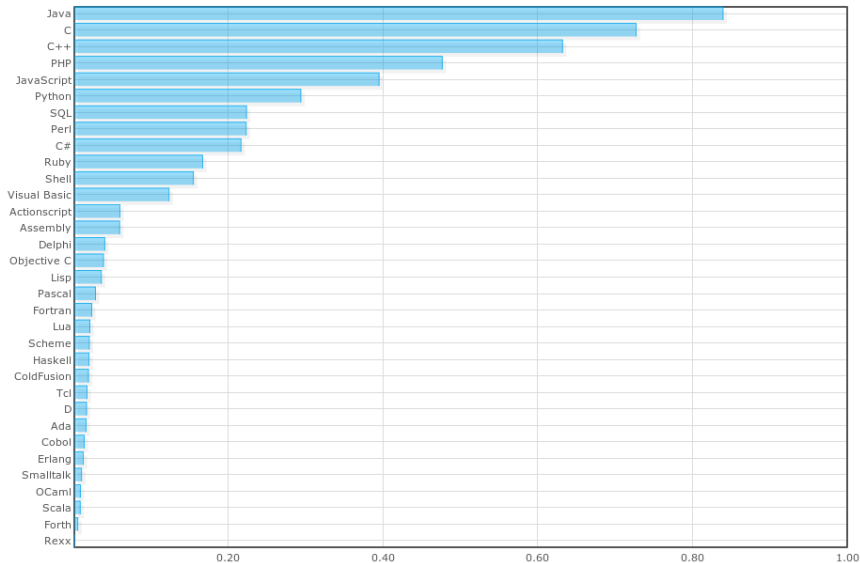
Motivation

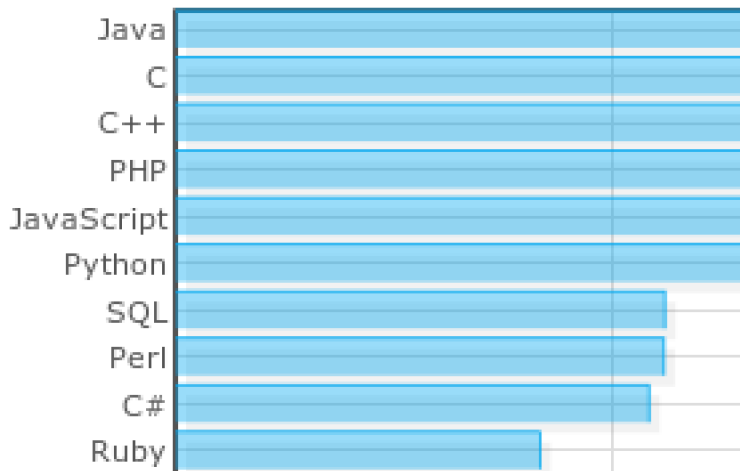
- Fordi det er meget populært!
- Programming Language Popularity: <http://langpop.com>
- C i top 3 for Yahoo, Craigslist, **Freshmeat**, **Google Code**, Ohloh, Lambda The Ultimate, programming.reddit.com, Slashdot og Freenode IRC
- Desværre en uvidenskabelig måling



Normalized Comparison

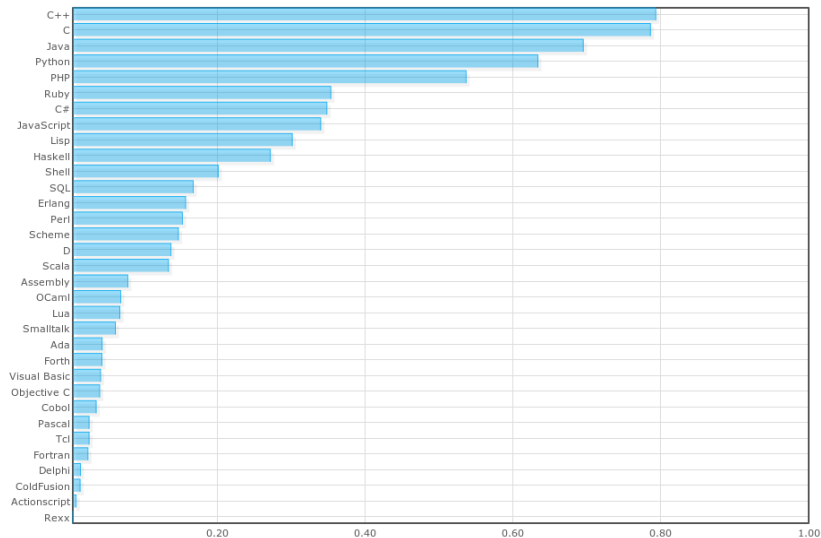
This is a chart showing combined results from all data sets.





Normalized Discussion Site Results

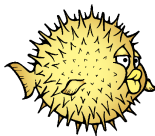
Normalized results from the discussion site data sets - these results are not included with the 'normalized results' above. It's interesting to note how languages like Haskell and Erlang are talked about a lot, despite scoring fairly low on the normalized popularity chart above. People are interested in them, but haven't begun to use them on a large scale yet.



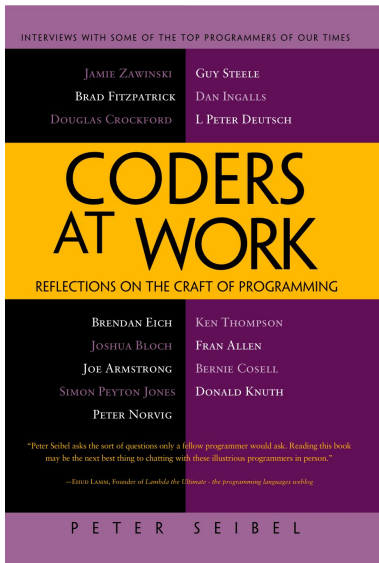
C++	
C	
Java	
Python	
PHP	
Ruby	
C#	
JavaScript	
Lisp	
Haskell	

Motivation

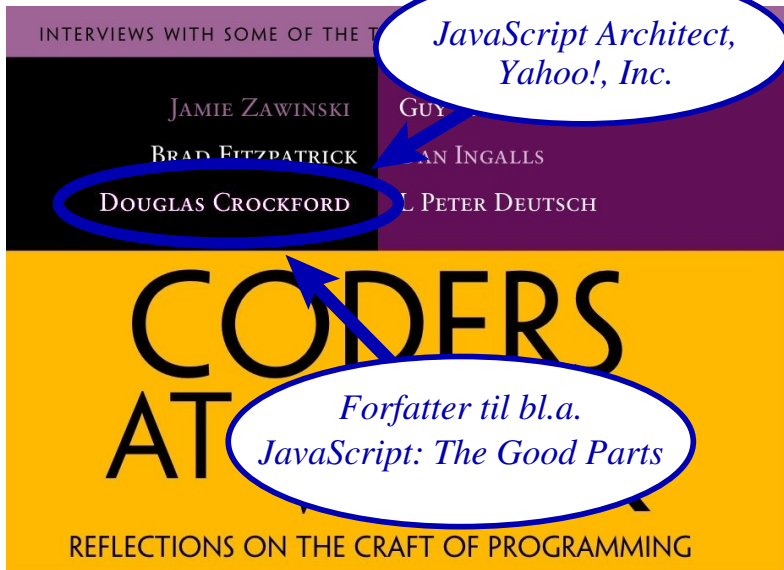
- Linux 2.6.33: 13 millioner linjer kode, primært C
- FreeBSD 8.0 /sys: 3,9 millioner linjer C (måske lidt inline asm)
- OpenBSD 4.6 /sys: 2,7 millioner linjer C (måske lidt inline asm)
- Vim 7.2.269: 380.000 linjer C
- Emacs 23.1: 329.000 linjer C



Motivation



Motivation



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Crockford: There was a period of maybe a decade where efficiency was really, really important. I guess it was in the early microprocessor era when memory was still really small and the CPUs were still really slow. [...] Eventually we got over that, so today we're writing big applications in JavaScript that run in a browser. It's such a profoundly inefficient environment compared to the stuff that we used to do, but Moore's Law sort of made it all OK.

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Motivation

- C er åbenbart stadig populært
- Der eksisterer rigtig meget C-kode
- Smartphones kan give kodeeffektivitet comeback
- Penumreducerende miniprojekt, der kræver C

Inden det går løs

- Måske trænger verden ikke til mange nye projekter i C
- Det er dog vigtigt at kunne læse C
- Læs mere kode end du skriver!
- I er et meget blandet publikum
- Forhåbentlig har vi noget til alle

Held og lykke!



Dennis Ritchie, opfinderen af C