

C vs. D

Ben Fuhrmannek <ben@fuhrmannek.de>
SIGINT 2010

Der moderne Programmierer wird im Laufe seines Lebens mit einem Wust unterschiedlicher Programmiersprachen konfrontiert. Dieser Vortrag veranschaulicht im Schnelldurchlauf die Historie der Softwareentwicklung seit der Erfindung automatischer Datenverarbeitungsanlagen. Wir stellen uns die Frage, wie Computer zum Denken angeregt werden können, indem wir selbst zum Denken über Computer angeregt werden. Vielleicht werfen diese anstrengenden Denkprozesse mehr Fragen auf, als im Schnelldurchlauf des Vortrags beantwortet werden können. Deshalb veranschaulichen zahlreiche Codeschnipsel sowohl Stärken, als auch knifflige Eigenheiten gebräuchlicher Sprachen - z.B. C oder Tcl - sowie auch ungebräuchlicher Sprachen - z.B. Aheui oder Brainfuck. Es ist wie so häufig dem Zuhörer überlassen, Skurrilitäten seiner persönlichen Lieblingssprache als Vorteile anzusehen. Achtung: Dieser Vortrag kann Spuren von strukturierter Programmierung enthalten.

Erlang

Python

ksh

Tcl

C

Perl

JavaScript

Lua

rexx

PHP

Brainf*ck

아희

1972

C



Ken Thompson und Dennis Ritchie

Bild von Wikipedia:
http://en.wikipedia.org/wiki/Dennis_Ritchie

```

        main(1
            ,a,n,d)char**a;{
    for(d=atoi(a[1])/10*80-
        atoi(a[2])/5-596;n="@NKA\
CLCCGZAAQBEAADAFaISADJABBA^\
SNLGAQABDAXIMBAACTBATAHDBAN\
ZcEMMCCCCCAAhEIJFAEAAABAfHJE\
TBdFLDAANefDNBPHdBcBBBEA_AL\
H E L L O,      W O R L D! "
        [1++-3];)for(;n-->64;)
            putchar(!d+++33^
                1&1);}

```


[illegible]

About me

- CCC
- Informatiker
- Freund der Vielseitigkeit der Softwareentwicklung



TOC

- Vorstellung verschiedener Sprachen
- Kommentare
- Codebeispiele

zum Logo

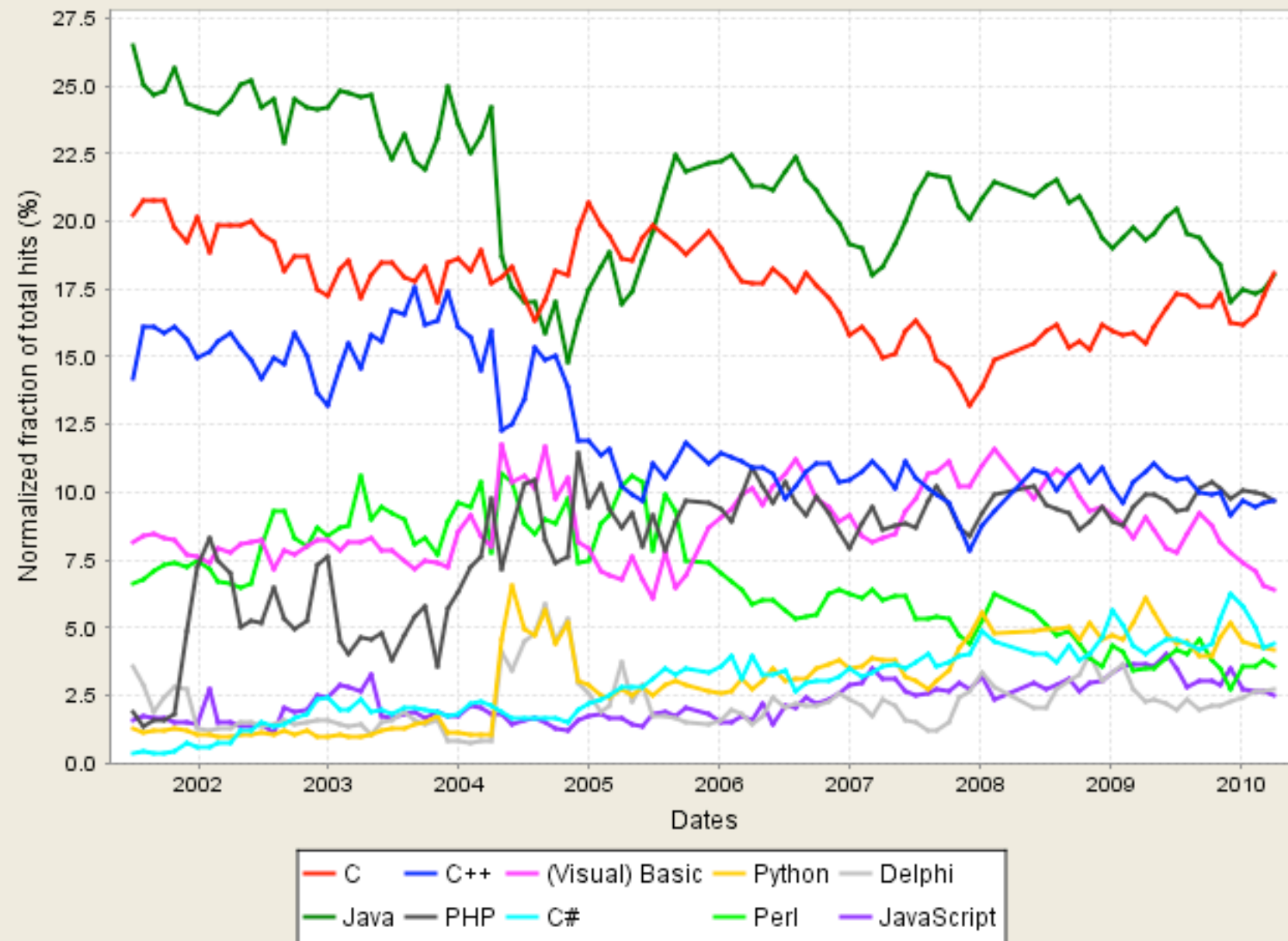
gcc -funroll-loops

gcc -l<name>

gcc -liberty

gcc
-funroll
-loops

Tiobe Programming Community Index



199x

아희 (Aheui)

불뵤뭉망불희
불도붓토풀오
붓또투또두오
발또반볼망오

밤밤다빠밤밤다뿌
빠망파빨반밤뚜몽
돈박탕빠망불두분
몬몽박발뚱투몽붓
몽노몽히맹몽몽북
몽북토편더벌뿌뚜
뽕뽕맹맹더뽕빠둔
뽕덩벗맹빠덕더벅

1977

Shell

(ksh/bash/zsh/...)

Fork Bomb



: () { : | : & } ; :

bash/zsh

http://en.wikipedia.org/wiki/Fork_bomb

nicht verifiziert!

```
eval "$ (sed '1d;s/#/;s\\//g;s/y/\\\\//g;s/u/Z(/g;s/l
g;s/Z/\\\\\\\\/g;s/Y/XXX/g;s/W/    /g;s/G/="\\$(C$z"|sed
g;s/C/printf "/g' $0)";exit
F="nWW YXXnWW XW XnWW XoWXnW YWoXXnW XWo o Xn Y X
X XX YXXW~~Xn X oWoWWWW~~Xn YXX Y X@XXW~~XnWW XWw 1111ww
YYXnn";z='k @X?@ nk~@X?P nk PX?@~nk~PX?P~n o@Xo@ n~o@XO@ n
O@XoP n~O@XOP n oPXo@~n~oPXO@~n OPXoP~n~OPXOP~n';hG[^X]*\\)X\\
([ ^n]*\\)n/sy\\1y\\2y;te;/g#?/Z1/g#k/Z\\(.Z\\)/g'):e";lG.\\)bbXb\\
([ ^n]*\\)bn/sy\\3\\2\\1y\\6\\5\\4y;te;/g#?/Z1/g#k/Z\\(.Z\\)/g'):e";KG
[^X]*\\)bbXb\\([ ^n]*\\)bn/sy_u\\1Z)u[^_]*Z)_\\2u[^_]*Z)_\\3y
\\4Z2\\5Z3\\6y;te;/g#?/Z1/g#k/./g'):e#_//g";JG[^X]*\\)bbXb\\([ ^n]*
\\)bn/sy_\\3u[^_]*Z)_\\2u[^_]*Z)_u\\1Z)y\\6Z1\\5Z2\\4y;te;/g#?/Z3/
g#k/./g'):e#_//g";z='\\)/n\\1_\\2\\3n\\4_\\5\\6n\\7_
\\8/;td;;d;';while ! C$i"|grep q;do clear;CSHOKOBAN (cl) iscsn
$F [HJKL]=MOVE Q=QUIT"|awk -vRS=n '///;/o/{e=1}END{exit !e}'||
exit;m="$ (C$F"|sed 's/^.*n\\([ ^n]*\\)[@P].*$/\\1/#./[ ^n]/
g' )";k="s/nu${m}Z)u.Z)u[ ^n]*Z)nu${m}Z)u.Z)u[ ^n]*Z)nu${m}Z)u
[@P]$z$K";j="s/nu${m}Z)u[@P]Z)u[ ^n]*Z)nu${m}Z)u.Z)u[ ^n]*Z)nu$
{m}Z)u.$z$J";read -n1 i;C$i"|grep [hijkl]&&eval "F=\\\"\\$(printf
\\\"\\$F\\\"|sed \\\"$\"$i\"\\\")\\\"";done
```

SHOKOBAN

von ISCS

SHOKOBAN (c1) iscs

```
XXXXX
X  X
Xo X
XXX oXX
X o o X
XXX X XX X XXXXXX
X X XX XXXXX ~~~X
X o o ~~~X
XXXXX XXX X@XX ~~~X
X XXXXXXXX
XXXXXX
```

[HJKL]=MOVE Q=QUIT



1979



(REXX)

```

/* WHERE AM I:                                     */

parse version language level      date      month year .
parse source  system  invocation filename .

language = translate(language)      /* ensure using Regina Rexx */
if pos('REGINA',language) = 0 then
    say 'ERROR: Interpreter is not Regina:' language

say 'Interpreter version/release date:' date month year
say 'Language standards level is:      ' level
say 'Version information from an OS command follows...'

/* determine operating system, get its version/release info */

select
    when system = 'WIN32' then
        'ver'
    when system = 'LINUX' then
        'uname -a'
    otherwise
        say 'Unexpected SYSTEM:' system
end

if rc <> 0 then          /* write message if OS command failed */
    say 'Bad return code on OS Version command:' rc

```



```
$ rexx ./Rexx_Prgrs_Reference_scripts/where_am_i.rexx  
Interpreter version/release date: 30 Dec 2007  
Language standards level is:      5.00  
Version information from an OS command follows...  
Unexpected SYSTEM: UNIX  
Bad return code on OS Version command: RC
```

Ausgabe des Beispielscripts auf MacOSX

1995

JavaScript

(ω = ([, Á , Í , Š , É , Ĥ , Ř , , , , Ó , Ñ] = ' ' + ! { }
+ ! ' ' + { } , [] [Š + Ó + Ř + Ĥ]) ()) [Á + Í + É + Ř + Ĥ]
(Ó + ω [Ñ + Ĥ + Ó + Á] (' Á «) '))

1987

`#!/usr/bin/perl`

Larry Wall,
Erfinder von Perl



Bild aus Wikipedia
[http://en.wikipedia.org/wiki/
File:Larry_Wall_YAPC_2007.jpg](http://en.wikipedia.org/wiki/File:Larry_Wall_YAPC_2007.jpg)

RegEx

[illegible]

[illegible]

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| 988



Tcl


```
#!/bin/sh
# the next line restarts using tclsh \
exec tclsh "$0" "$@"

for {set x 0} {$x<10} {incr x} {
    puts "x is $x"
}
```

```
#!/usr/bin/env tclsh
rename rename |
| for x
| set X
| incr >
| puts <
X xx {X x 0}
X XX {$x<10}
X X {> x}
x $xx $XX $X {
    < "x is $x"
}
```


1995





inurl:php warning fopen

Search

About 2,480,000 results (0.26 seconds)

[Advanced search](#)

 Everything

 More

The web

Pages from the UK

 More search tools

[PHP: fopen - Manual](#)

If it is switched off, PHP will emit a warning and the fopen call will fail. Otherwise you will get the message: PHP **Warning: fopen**(x.txt): failed to ...

[php.net/manual/en/function.fopen.php](#) - 15 hours ago - [Cached](#) - [Similar](#)

[Warning: fopen\(./settings.php\) | Pligg CMS Forum](#)

10 posts - 4 authors - Last post: 20 Sep 2007

Hi I've received this info after installation. Tables were created successfully! **Warning: fopen**(./settings.php) [function.fopen]: failed to ...

[forums.pligg.com > Questions and Comments](#) - [Cached](#) - [Similar](#)

[Good Ol Warning: fopen failed to open stream Permission Denied ...](#)

9 posts - 3 authors - Last post: 22 Aug 2008

PHP **Warning: fopen**(news.xml) [function.fopen]: failed to open stream: Permission denied in C:\inetpub\wwwroot\mysite.com\rss\generate.php on ...

[www.codingforums.com > ... > :: Server side development > PHP](#) - [Cached](#) - [Similar](#)

[Welling and Thompson's PHP and MySql Web Development book- fopen ...](#)

[fopen\(\) headache](#)

[fopen error: failed to open stream: no such file...](#)

[permission denied using fopen in php](#)

[More results from codingforums.com »](#)

[PHP :: Bug #22177 :: Warning: fopen\(\) expects parameter 1 to be string](#)

17 Mar 2010 ... "**Warning: fopen**() expects parameter 1 to be string" Now read the manual for fopen -> parameter 1 needs to be a string. ...

[bugs.php.net/bug.php?id=22177](#) - [Cached](#)

[PHP :: Warning: Fopen\(\) \[function.fopen\]: Failed To Open Stream ...](#)

The file is found OK, but when it tries to open the html file to write to it, it says "**Warning: fopen**(static-front.html) [function.fopen]: failed to open ...

[www.bigresource.com/PHP-Warning-fopen-function-fopen-failed-to-open-stream-No-such-file-or-directory-RiHoRrc5.html](#) - [Cached](#)

[Warning: fopen\(config_override.php\) \[function.fopen\]: failed to ...](#)

5 posts - 4 authors - Last post: 4 Jan

Hi Professionals, I am havint trouble in the system wide settings: I can't save data & get the errors: **Warning: fopen**(config_override.php) ...

1989



```
a = ['Mary', 'had', 'a', 'little', 'lamb']  
for i in range(len(a)):  
    print i, a[i]
```



```
'food tsi tseil sad rew'[::-1]
```

string reverse in python

1998



```
-module(foo).  
-export([  
    bar/0,  
    test/0  
]).
```

```
bar() ->  
    receive  
        quit -> ok;  
        X ->  
            io:format("received ~p~n", [X]),  
            bar()  
    end.
```

```
test() ->  
    P = spawn(fun bar/0),  
    P ! test,  
    P ! {this, is, "a", 7337},  
    P ! quit.
```


Python

DOS Stapelverarbeitung

Lisp

R/S

OCaml

Ada

Fortran

Prolog

VB

Java

Haskell

C++

Pascal

Lua

Objective-C

Scala

Abap

C#

Forth

gcc -funroll-loops