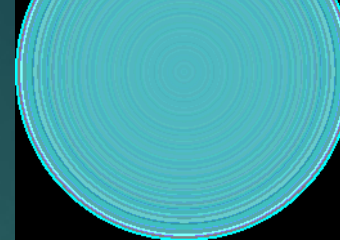


# História ezoterických programovacích jazykov

ERIK KOČAMBA



# Ezoterický programovací jazyk

- ▶ Esolang
- ▶ Experimentovanie s divnými nápismi
- ▶ Zložité programovanie
- ▶ Vtip

# INTERCAL

- ▶ Donald R. Woods a James M. Lyon
- ▶ 1972
- ▶ Prvý ezoterický programovací jazyk
- ▶ Compiler Language With No Pronounceable Acronym

- ▶ DO ,1 <- #13
- ▶ PLEASE DO ,1 SUB #1 <- #238
- ▶ DO ,1 SUB #2 <- #108
- ▶ DO ,1 SUB #3 <- #112
- ▶ DO ,1 SUB #4 <- #0
- ▶ DO ,1 SUB #5 <- #64
- ▶ DO ,1 SUB #6 <- #194
- ▶ DO ,1 SUB #7 <- #48
- ▶ PLEASE DO ,1 SUB #8 <- #22
- ▶ DO ,1 SUB #9 <- #248
- ▶ DO ,1 SUB #10 <- #168
- ▶ DO ,1 SUB #11 <- #24
- ▶ DO ,1 SUB #12 <- #16
- ▶ DO ,1 SUB #13 <- #162
- ▶ PLEASE READ OUT ,1
- ▶ PLEASE GIVE UP

# BRAIN\*CK

- ▶ Urban Müller
- ▶ 1993
- ▶ Najznámejší esolang
- ▶ Cieľom bolo vytvoriť čo najmenší kompilátor pre Amiga OS 2.0 (240B)
- ▶ 8 príkazov: <>+-[.].,

# BRAIN\*CK

Príkaz	Popis
>	Posun ukazateľa doprava
<	Posun ukazateľa doľava
+	Inkrement pamäťovej bunky
-	Dekrement pamäťovej bunky
.	Výpis znaku pamäťovej bunky
,	Načítanie znaku pamäťovej bunky
[	Skok za párovú ] ak pamäťová bunka má hodnotu 0
]	Skok späť na párovú ] ak pamäťová bunka má hodnotu rôznu od 0

# BRAIN\*CK

```
+++++++ [>++++ [>+>++++>++++>+<<<<-]>+>+>->>+ [<]<-]>>.>---  
 .+++++++ ..+++.>>.<-.<.+ + + .----- .-----.>>+.>+ + .
```

# SMETANA

- ▶ Chris Pressey
- ▶ 1994
- ▶ Self-Modifying Extremely Tiny Automaton Application
- ▶ 2 typy inštrukcií
  - ▶ Swap step x with step y.
  - ▶ Go to step x.



# SMETANA

Step 1. Go to step 4.

Step 2. Swap step 3 with step 5.

Step 3. Go to step 6.

Step 4. Swap step 1 with step 6.

Step 5. Go to step 2.

Step 6. Swap step 1 with step 2.

# Malbolge

- ▶ Ben Olmstead
- ▶ 1998
- ▶ Pomenovaný po ôsmom kruhu pekla v dráme Dante Alighieriho
- ▶ Navrhnutý aby bol takmer nepoužiteľný

# Malbolge

(=<`#9]~6ZY32Vx/4Rs+0No-&Jk)"Fh} | Bcy?`=\*z]Kw%oG4UUS0/@-ejc(:'8dc

# Shakespeare

- ▶ Karl Hasselström a Jon Åslund
- ▶ 2001
- ▶ Cieľom bolo vytvoriť jazyk ktorý by pripomínal Shakespeareove hry

# Shakespeare

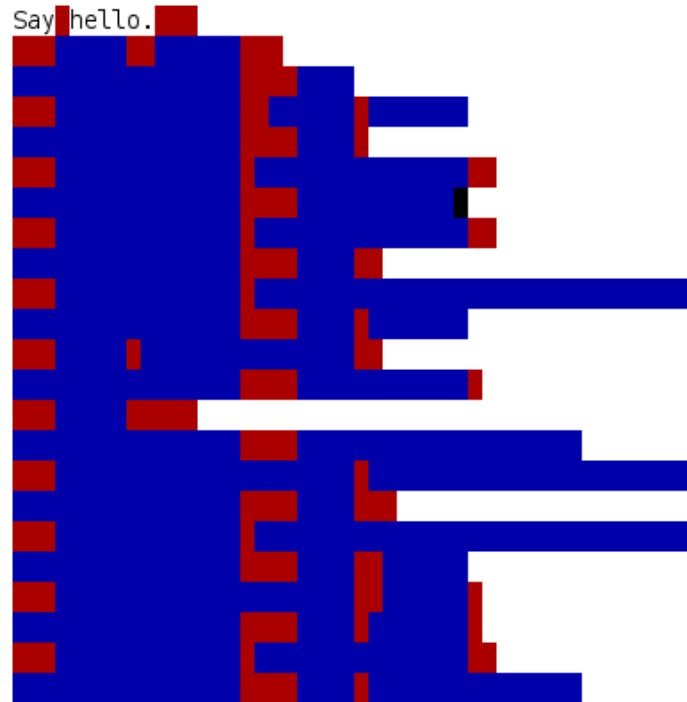
- ▶ The Infamous Hello World Program.
- ▶ Romeo, a young man with a remarkable patience. Juliet, a likewise young woman of remarkable grace. Ophelia, a remarkable woman much in dispute with Hamlet. Hamlet, the flatterer of Andersen Insulting A/S.
- ▶ Act I: Hamlet's insults and flattery.
- ▶ Scene I: The insulting of Romeo.
- ▶ [Enter Hamlet and Romeo] Hamlet: You lying stupid fatherless big smelly half-witted coward! You are as stupid as the difference between a handsome rich brave hero and thyself! Speak your mind! You are as brave as the sum of your fat little stuffed misused dusty old rotten codpiece and a beautiful fair warm peaceful sunny summer's day. You are as healthy as the difference between the sum of the sweetest reddest rose and my father and yourself! Speak your mind! You are as cowardly as the sum of yourself and the difference between a big mighty proud kingdom and a horse. Speak your mind. Speak your mind! [Exit Romeo]

# WHITESPACE

- ▶ Edwin Brady a Chris Morris
- ▶ 2003
- ▶ Pozostáva iba z bielych znakov
- ▶ Môže byť obsiahnutý v kóde iného jazyka

Whitespace

# Whitespace





# LOLCODE

- ▶ Adam Lindsay
- ▶ 2007
- ▶ Příkazy inšpirované LOLCATS meme



# LOLCODE

HAI 1.2

CAN HAS STDIO?

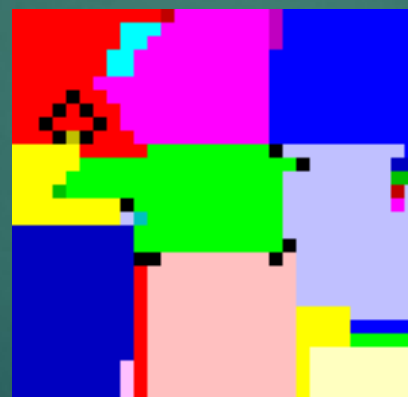
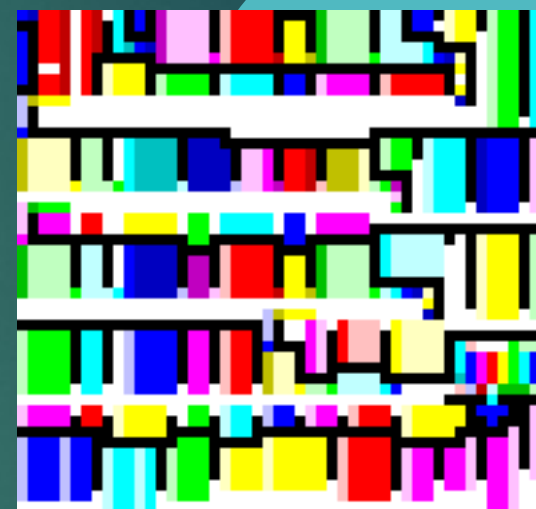
VISIBLE "HAI WORLD!!!1!"

KTHXBYE

# Piet

- ▶ David Morgan-Mar
- ▶ Výstup je podobný abstraktnému obrazu
- ▶ Je tvorený 20 farbami
- ▶ Každá farba reprezentuje integer

# Piet



# Velato

- ▶ Daniel Temkin
- ▶ 2009
- ▶ Používa MIDI súbory ako zdrojový kód
- ▶ Program sa dá zapísať do nôt

# Velato

A musical score for the piece 'Velato', consisting of seven staves of music. The score is written in bass clef with a 4/4 time signature. The first staff begins with a key signature of one sharp (F#) and a common time signature. The music features a variety of rhythmic patterns, including eighth and sixteenth notes, and rests. The second staff contains a complex, fast-moving melodic line with many beamed notes. The third staff shows a more rhythmic, bass-oriented line with some rests. The fourth and fifth staves continue the melodic and rhythmic development. The sixth staff features a dense, fast-moving melodic line with many beamed notes. The seventh staff concludes the piece with a final chord and a double bar line.

# JSF\*ck

- ▶ Yosuke Hasegawa
- ▶ 2010
- ▶ Validný JS kód
- ▶ 6 príkazov: +!() []





# ArnoldC

- ▶ Lauri Hartikka
- ▶ 2013
- ▶ Jazyk založený na hláškách Arnolda Schwarzeneggera

# ArnoldC

IT'S SHOWTIME

TALK TO THE HAND "hello world"

YOU HAVE BEEN TERMINATED

# OSTRAJava

- ▶ Tomáš Kohout
- ▶ 2015
- ▶ Má za cieľ pozdvihnúť kvalitu (nie len ostravského) programovania.

# OSTRAJava

```
banik pyco
tryda Ostrava{
    rynek(){
        Konzola.praivit("Toz vitaj") pyco
    }
}
fajront pyco
```