Introduction to LaTeX

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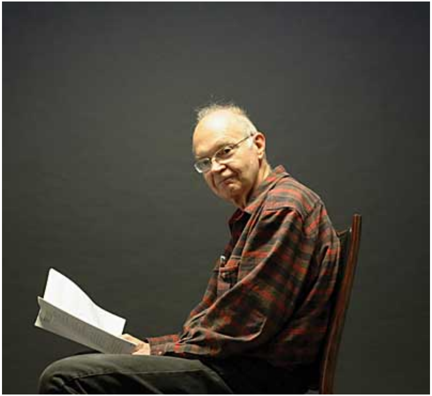
Pronounciation

{lay,lah}-teck

Samples

Donald Knuth



- January 10, 1938 (age 74)
- Professor Emeritus at Stanford University
- Author of “The Art of Computer Programming”
  - Volumes 1-4A... still going.

A brief history

1974 Donald Knuth stops submitting papers to American Mathematical Society(AMS)

1977 Knuth begins research into typography

1978 Knuth delivers an AMS Gibbs Lecture entitled Mathematical Typography

1979 TEXfinished[1]

Early 1980s LATEX, a set of macros to make life easier when working with TEXcompleted by Leslie Lamport.

[1] http://www.xent.com/FoRK-archive/feb98/0307.html

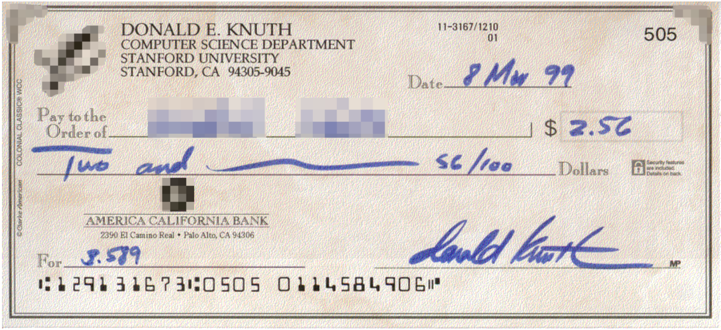
Real programmers code with butterflies!

“When I wrote TeX originally in 1977 and ’78, of course I didn’t have literate programming but I did have structured programming. I wrote it in a big notebook in longhand, in pencil.”- Knuth [2]

[2] Coders at Work

Knuth’s bank

“Intelligence: Finding an error in a Knuth text.
Stupidity: Cashing that $2.56 check you got.”
- a Slashdot signature[3]



[3] http://www.stgray.com/quotes/programmingquotes.html

LaTeX- the (few) good parts I

$$e^{i\pi} + 1 = 0$$

LaTeX- the (few) good parts II

$$P(A|B) = \frac{P(B|A)P(A)}{P(B)}$$

LaTeX- the (few) good parts III

$$P(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{\frac{(x-\mu)^2}{2\sigma^2}}$$

$\LaTeX$- the (few) good parts IV

$$\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{\pi}}}}$$

Bibliography

$\LaTeX$- urghhh..

Verbose, too much like programming

Line noise

```
\[ M[i,j] =
\left\{ \begin{array}{l l} 0 & \quad \text{if } i=0
\text{ or } j=0\\
M[i-1,j] & \quad \text{if } w_i > j\\
\max \left( M[i-1,j-w_i] + v_i, M[i-1,j] \right)
& \quad \text{if } w_i \leq j\\
\end{array} \right. \]
```

$$M[i,j] = \left\{ \begin{array}{l l} 0 & \quad \text{if } i=0 \text{ or } j=0\\ M[i-1,j] & \quad \text{if } w_i > j\\ \max \left(M[i-1,j-w_i] + v_i, M[i-1,j] \right) & \quad \text{if } w_i \leq j\\ \end{array} \right.$$