Brief Reasoning and History of the C Programming Language

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Chair of Software Engineering

Contents

Dennis Ritchie: The Development of the C Language

https://www.bell-labs.com/usr/dmr/www/chist.html

- Setting
- Origins in Other Languages
- Later Usage

We will address to it

Computer Generations

1. 1940s–1950s. Relays and vacuum tubes: 10^5 watts, many rooms; available for military purposes (and then for other physical computations)
2. 1950s–1960s. Semiconductors (transistors, diodes): 10^4 watts, several racks; available for large institutions, banks
3. 1960s–1970s. Integrated circuits: $10^2 - -10^3$ watts, one or several racks; available for smaller institutions and laboratories
4. 1970-x–1980s–now. Microporcessors in single integrated circuit: $10 - -10^2$ watts, one box, available for any organization and later for personal use

Setting

Common approach of 1960s

- Mainframes like IBM/360 or GE-645
- Programming languages like PL/I
- Operating systemc like OS/360 or Multics
- Batch control approach like JCL

Everything is complicated and heavy-weight

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New approach of 1970s

- Simpler *and cheaper* mini-computers like DEC PDP-7
- More universal use of them
- Many computer families

Birth of Unix

content...

Birth of C

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C Predecessors

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1980s–1990s

- Cheap PCs
- Internet

1990s–2000s–now

- Many mobile and embedded architectures
- Parallel architectures

Questions please!

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