Introduction to C Programming

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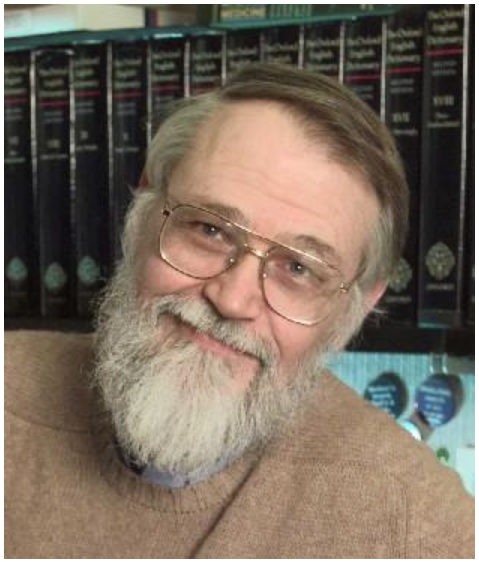
- Compiled
- Extremely portable
- Static, weak typing
- Higher level than assembly, but low-level memory access available

Brief history of C

- First released 1972



Brian Kernighan

Dennis Ritchie

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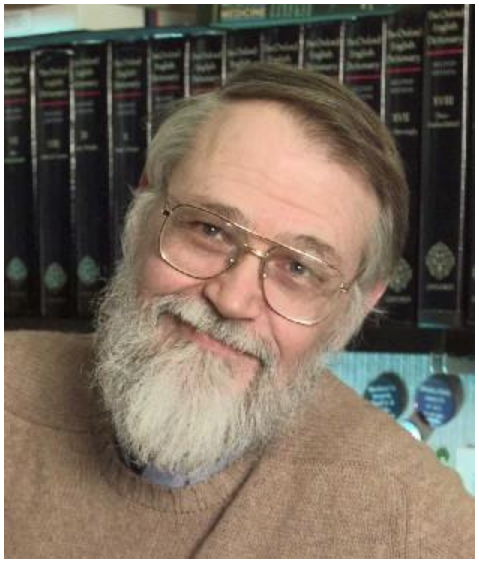

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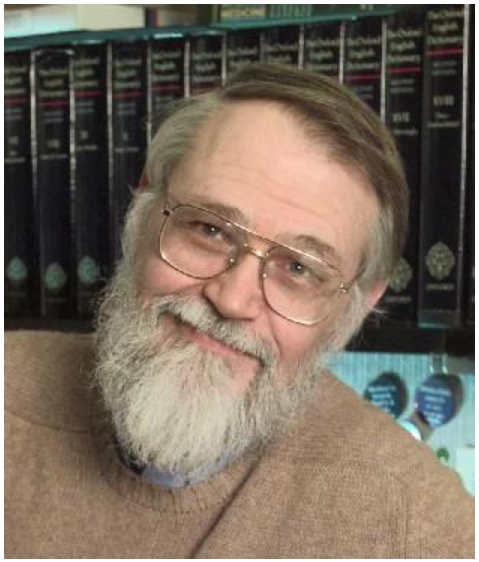

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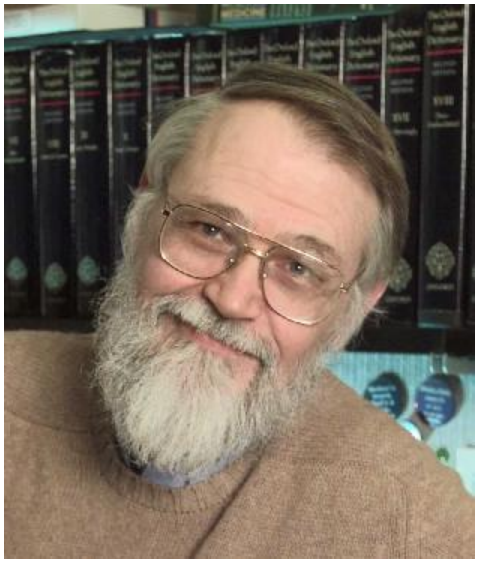

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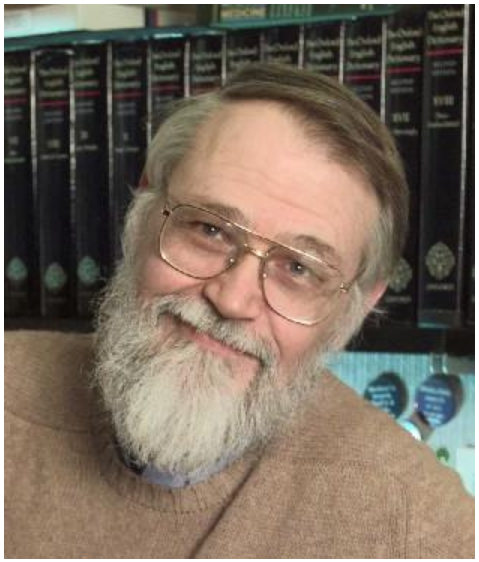
- Developed alongside Unix by K&R
- 5 standards in total, latest: C11
- Influenced almost every major language since



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- Extremely fast to execute
- Unbeatable portability
- Very mature – systems critical to safety
- Microcontrollers/embedded systems
- Kernel and driver development
- Deeper understanding of algorithms and data structures

Hello World

```c
#include <stdio.h>

/* This is a comment, which may be
multi-lined */

int main(int argc, char *argv[])
{
    printf("Hello, world!\n");
    return 0;
}
```