

A black and white photograph of two men, Ken Thompson and Dennis Ritchie, in a computer room. Ken Thompson, on the left, is standing and looking down at a computer terminal. Dennis Ritchie, on the right, is sitting at the terminal and typing on the keyboard. The room is filled with large, floor-standing computer cabinets. A large roll of paper is visible on the left side of the image. The text "Ken Thompson & Dennis Ritchie" is overlaid on the image in a large, white, sans-serif font, tilted diagonally. The text "COURTESY BELL LABS" is visible in the top right corner.

# Ken Thompson & Dennis Ritchie

COURTESY BELL LABS

# Dennis Ritchie

*Dennis Ritchie* was born in Bronxville, New York (September 9, 1941). His father was Alistair E. Ritchie, a longtime Bell Labs scientist and co-author of *The Design of Switching Circuits* on switching circuit theory.

*As a child*, Dennis moved with his family to Summit, New Jersey, where he graduated from Summit High School. He graduated from Harvard University with degrees in physics and applied mathematics.

*In 1967*, Ritchie began working at the Bell Labs Computing Sciences Research Center, and in 1968, he defended his PhD thesis on "Program Structure and Computational Complexity" at Harvard under the supervision of Patrick C. Fischer. However, Ritchie never officially received his PhD degree.

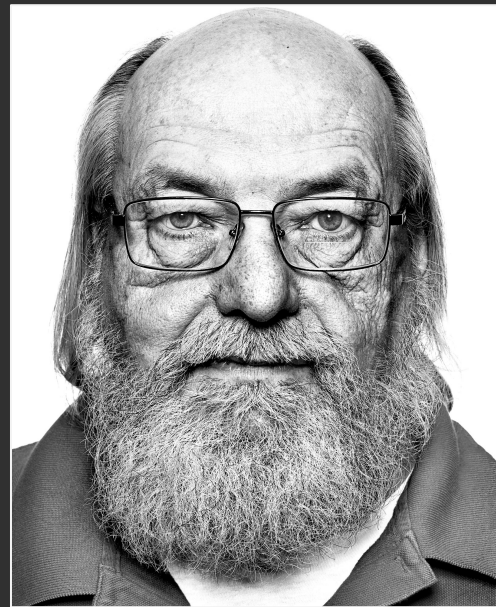


# Ken Thompson

*Thompson* was born in New Orleans(February 4, 1943). When asked how he learned to program, Thompson stated, "I was always fascinated with logic and even in grade school I'd work on arithmetic problems in binary, stuff like that. Just because I was fascinated."

*Thompson* received a Bachelor of Science in 1965 and a Master's degree in 1966, both in Electrical Engineering and Computer Science, from the University of California, Berkeley, where his master's thesis advisor was Elwyn Berlekamp.

*Thompson* was hired by Bell Labs in 1966.







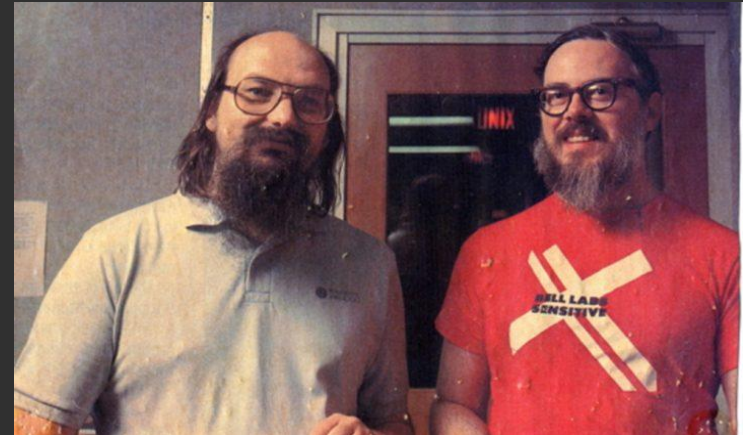
# UNIX

During the 1960s, Ritchie and Ken Thompson worked on the Multics operating system at Bell Labs. However, Bell Labs pulled out of the project in 1969. Thompson then found an old PDP-7 machine and developed his own application programs and operating system from scratch, aided by Ritchie and others.

In 1970, Brian Kernighan suggested the name "Unix", a pun on the name "Multics".

To supplement assembly language with a system-level programming language, Thompson created B. Later, B was replaced by C, created by Ritchie, who continued to contribute to the development of Unix and C for many years.

```
Terminal
drwxr-xr-x 17 bin      272 Jan  1 1970 mnt
drwxr-xr-x  2 bin       32 Jan  1 1970 mnt2
-rw-rw-rw-  1 root    28472 Aug 20 12:01 rkunix
-rwxr-xr-x  1 bin    28636 Aug 20 11:38 rkunix.40
drwxrwxrwx  2 bin     144 Aug 20 12:14 tmp
-rwxr-xr-x  1 bin    28472 Aug 20 12:01 unix
drwxr-xr-x 13 bin      224 Aug 20 12:22 usr
drwxr-xr-x  2 bin       32 Jan  1 1970 usr2
# ls -l /usr
total 12
drwxr-xr-x  2 bin       32 Jan  1 1970 adm
drwxr-xr-x  2 bin     768 Jan  1 1970 bin
drwxr-xr-x  2 bin       64 Jan  1 1970 fort
drwxr-xr-x  2 bin    144 Jan  1 1970 games
drwxr-xr-x  2 bin       32 Jan  1 1970 ken
drwxr-xr-x  3 bin    352 Jan  1 1970 lib
drwxr-xr-x  2 bin       32 Jan  1 1970 lpd
drwxr-xr-x  2 bin    352 Jan  1 1970 mdec
drwxr-xr-x  2 bin     128 Jan  1 1970 pub
drwxr-xr-x 20 bin    336 Jan  1 1970 source
drwxrwxrwx  2 bin       32 Jan  1 1970 tmp
# ls -l /usr/ken
total 0
#
```



# C

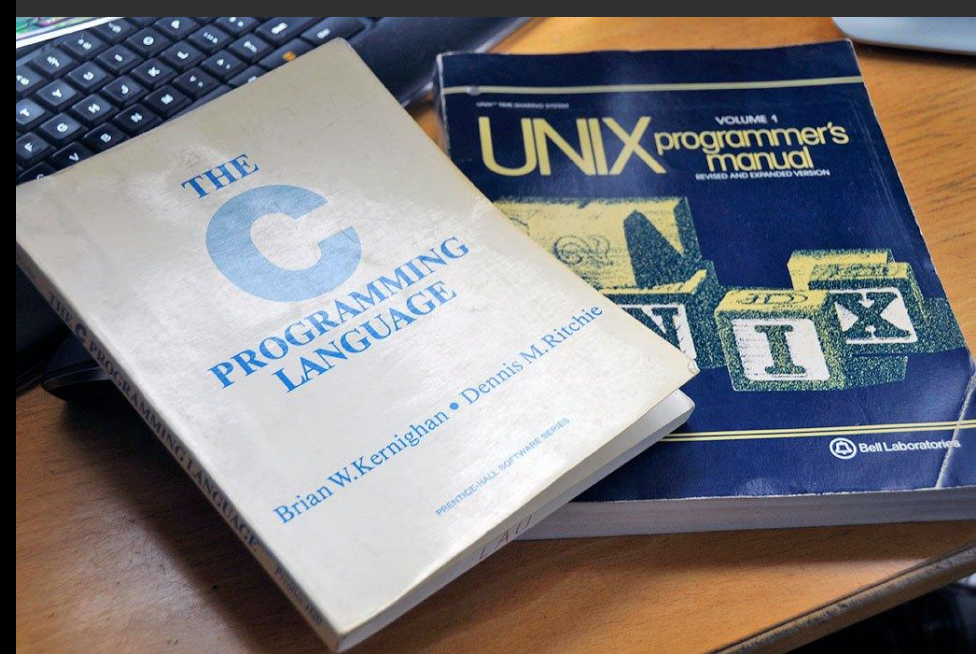
*Ritchie* is best known as the creator of the C programming language, co-author of the book *The C Programming Language*.

He was the 'R' in K&R (a common reference to the book's authors Kernighan and Ritchie).

*One* of Ritchie's most important contributions to Unix was its porting to different machines and platforms.

*Nowadays*, the C language is widely used today in applications, operating systems, and embedded system development. And its influence is seen in most modern programming languages. Unix has also been influential, establishing computing concepts and principles that have been widely adopted.

*In* an interview from 1999, Ritchie clarified that he saw Linux and BSD operating systems as a continuation of the basis of the Unix operating system, and as derivatives of Unix.



# DENNIS RITCHIE & KEN THOMPSON

Inventors of UNIX.

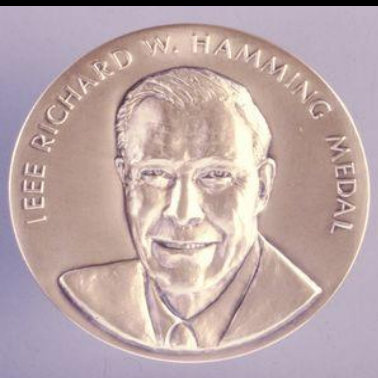


## Awards

*In 1983, Ritchie and Thompson received the Turing Award for their development of generic operating systems theory and specifically for the implementation of the UNIX operating system. Ritchie's Turing Award lecture was titled "Reflections on Software Research".*

*In 1990, both Ritchie and Thompson received the IEEE Richard W. Hamming Medal from the Institute of Electrical and Electronics Engineers (IEEE), "for the origination of the UNIX operating system and the C programming language".*

*In 1997, both Ritchie and Thompson were made Fellows of the Computer History Museum, "for co-creation of the UNIX operating system, and for development of the C programming language."*







*On April 21, 1999, Thompson and Ritchie jointly received the National Medal of Technology of 1998 from President Bill Clinton for co-inventing the UNIX operating system and the C programming language which, according to the citation for the medal, "led to enormous advances in computer hardware, software, and networking systems and stimulated growth of an entire industry, thereby enhancing American leadership in the Information Age".*

*In 2005, the Industrial Research Institute awarded Ritchie its Achievement Award in recognition of his contribution to science and technology, and to society generally, with his development of the Unix operating system*

*In 2011, Ritchie, along with Thompson, was awarded the Japan Prize for Information and Communications for his work in the development of the Unix operating system.*



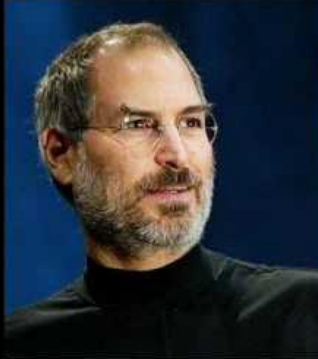


**Dennis Ritchie**  
1941-2011



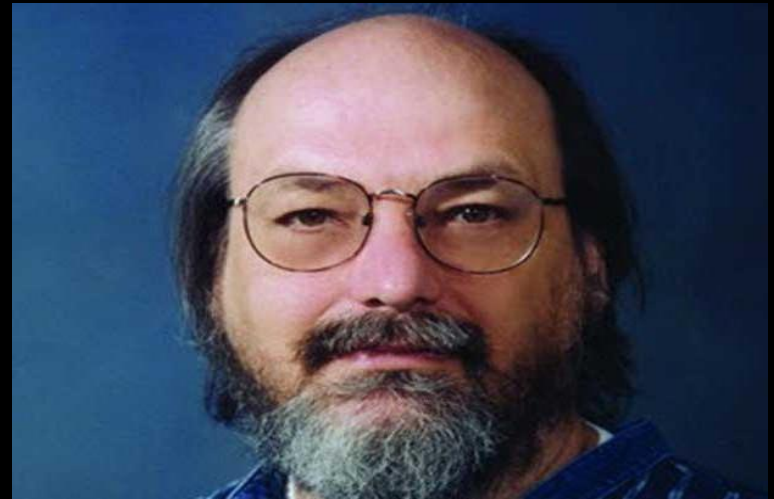
Become a Hipster  
Sell Stolen Ideas

Invent C  
and UNIX



Praised by Media as  
Jesus of Computing

Ignored



*Other* notable contributions included his work on regular expressions and early computer text editors QED and ed, the definition of the UTF-8 encoding, his work on computer chess that included creation of endgame tablebases and the chess machine Belle.

Since 2006, Thompson has worked at Google, where he co-invented the Go programming language.



# Respect!

Resources:

[https://en.wikipedia.org/wiki/Dennis\\_Ritchie](https://en.wikipedia.org/wiki/Dennis_Ritchie)

[https://en.wikipedia.org/wiki/C\\_\(programming\\_language\)](https://en.wikipedia.org/wiki/C_(programming_language))

[https://en.wikipedia.org/wiki/Ken\\_Thompson](https://en.wikipedia.org/wiki/Ken_Thompson)

