第 2 讲：OS Architecture & Structure

第三节：Monolithic kernel – UNIX

陈渝

清华大学计算机系

yuchen@tsinghua.edu.cn

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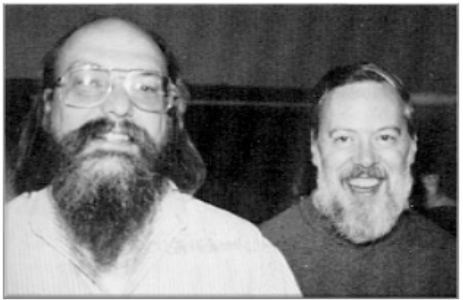
UNIX

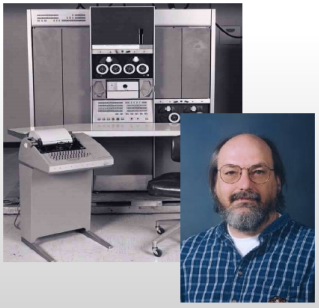


UNIX

- Ken Thompson, Dennis Ritchie
- Douglas McIlroy, and J. F. Ossanna
- The name (written Unics at the beginning) was coined by Brian Kernighan as a pun on Multics

UNIX

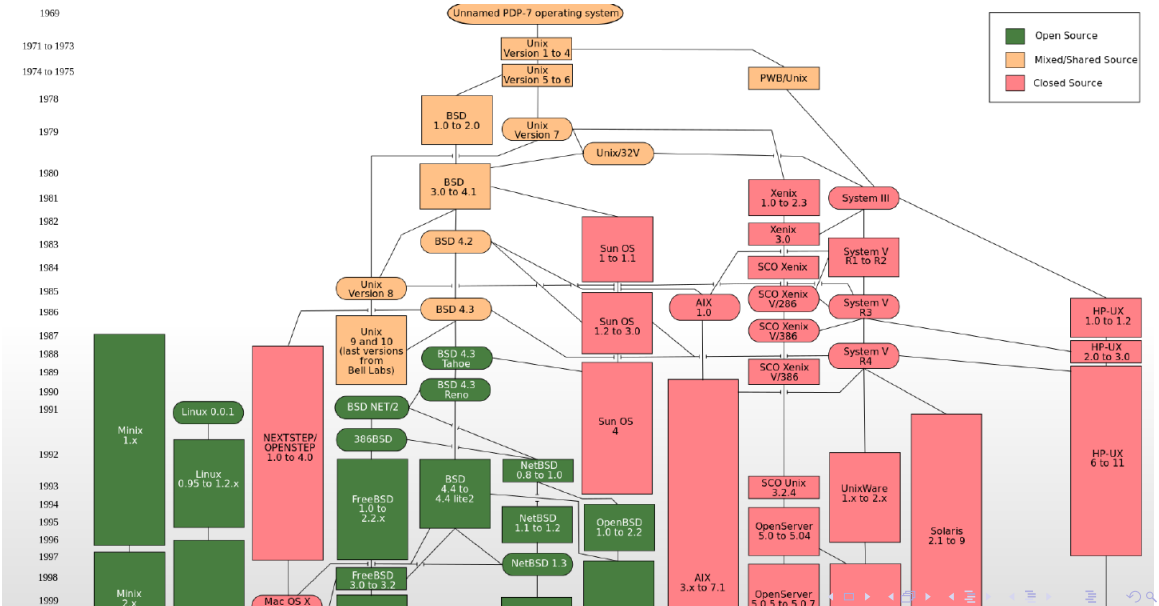
- Thompson wrote the first version of the yet-unnamed operating system in assembly language for a DEC PDP-7 minicomputer
- Thompson developed a compiler for a new high-level language he called B (stripped-down version of the BCPL language). In 1972 Dennis Ritchie created a new language called C
- In 1973 most of the UNIX kernel was rewritten in C



"I allocated a week each to the operating system, the shell, the editor, and the assembler to reproduce itself..."

-- Ken Thompson
(summer of '69)

UNIX


1969
1971 to 1973
1974 to 1975
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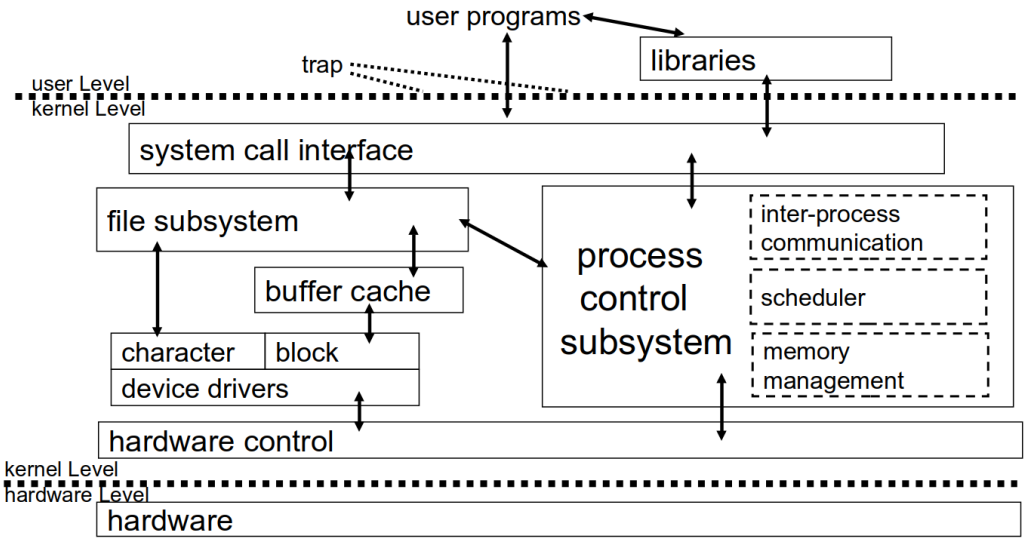
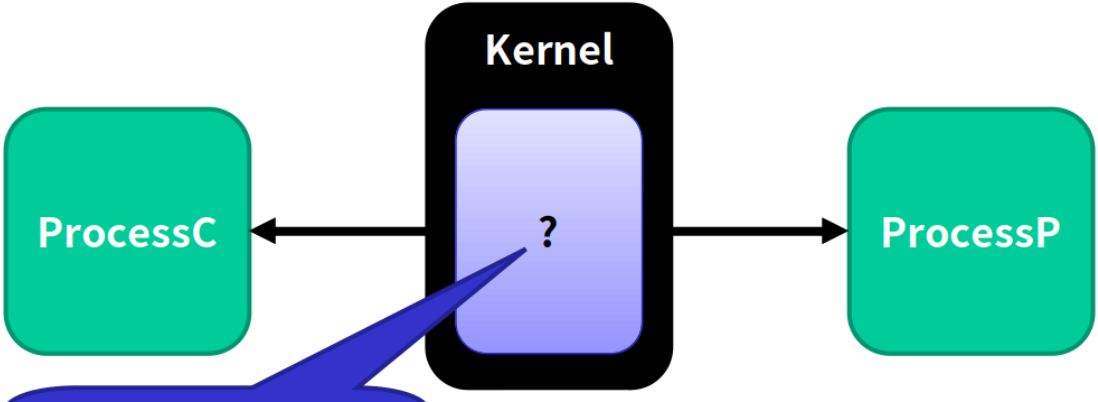
1995
1996
1997
1998
1999
Open Source
Mixed/Shared Source
Closed Source
Unnamed PDP-7 operating system
Unix Version 1 to 4
Unix Version 5 to 6
PWB/Unix
BSD 1.0 to 2.0
Unix Version 7
Unix/32V
BSD 3.0 to 4.1
Xenix 1.0 to 2.3
System III
Xenix 3.0
BSD 4.2
Sun OS 1 to 1.1
SCO Xenix
System V R1 to R2
Unix Version 8
BSD 4.3
Sun OS 1.2 to 3.0
AIX 1.0
SCO Xenix V/286
System V R3
HP-UX 1.0 to 1.2
Unix 9 and 10 (last versions from Bell Labs)
SCO Xenix V/386
HP-UX 2.0 to 3.0
BSD 4.3 Tahoe
System V R4
BSD 4.3 Reno
SCO Xenix V/386
Minix 1.x
Linux 0.0.1
BSD NET/2
Sun OS 4
NEXTSTEP/ OPENSTEP 1.0 to 4.0
386BSD
Linux 0.95 to 1.2.x
FreeBSD 1.0 to 2.2.x
BSD 4.4 to 4.4 lite2
NetBSD 0.8 to 1.0
SCO Unix 3.2.4
UnixWare 1.x to 2.x
HP-UX 6 to 11
NetBSD 1.1 to 1.2
OpenBSD 1.0 to 2.2
OpenServer 5.0 to 5.04
Solaris 2.1 to 9
NetBSD 1.3
FreeBSD 3.0 to 3.2
AIX 3.x to 7.1
Minix 2.x
Mac OS X
OpenServer 5.0.5 to 5.0.7

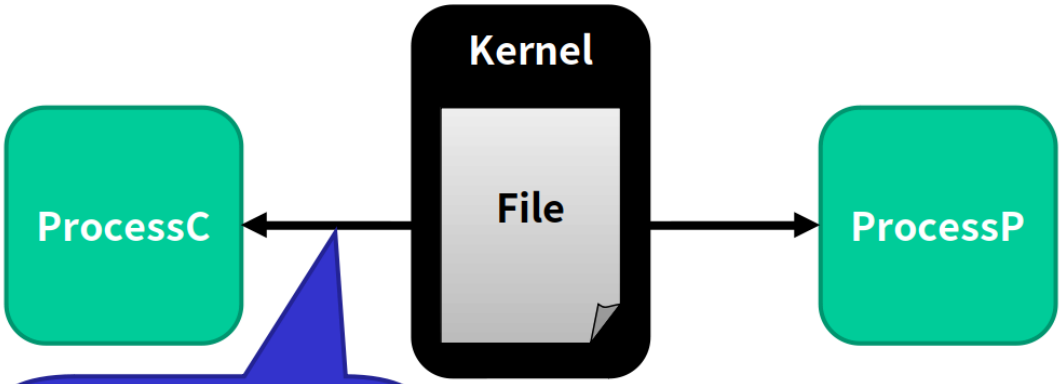
UNIX architecture



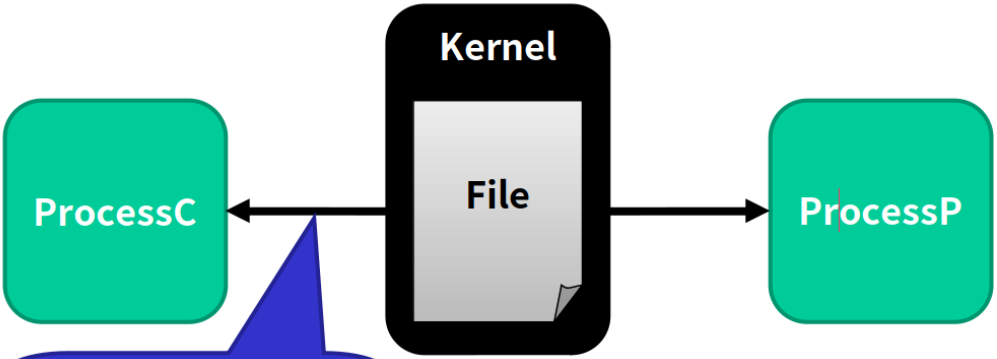
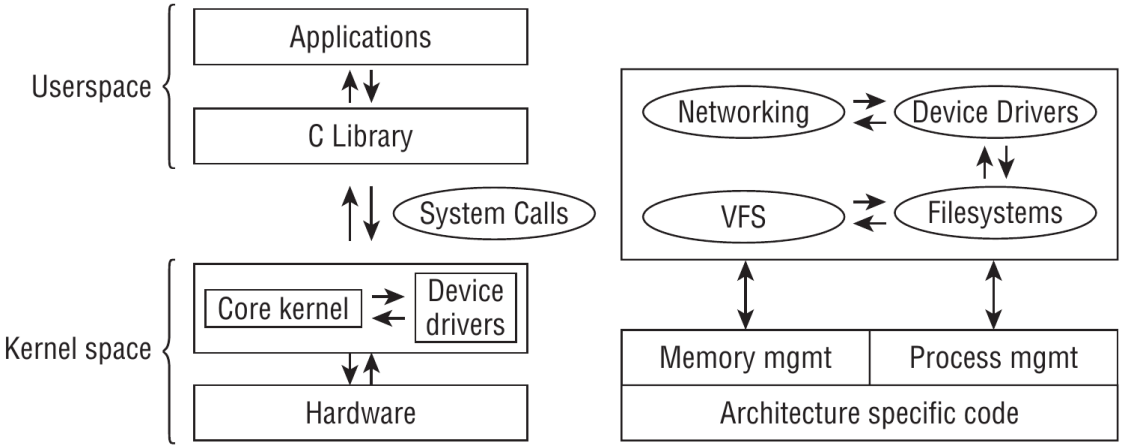
UNIX architecture



UNIX architecture



UNIX architecture



Linux architecture