



Code (text)

1 line = 1 machine instruction

- not binary

- automatic addresses

- metadata

labels:

x86-64

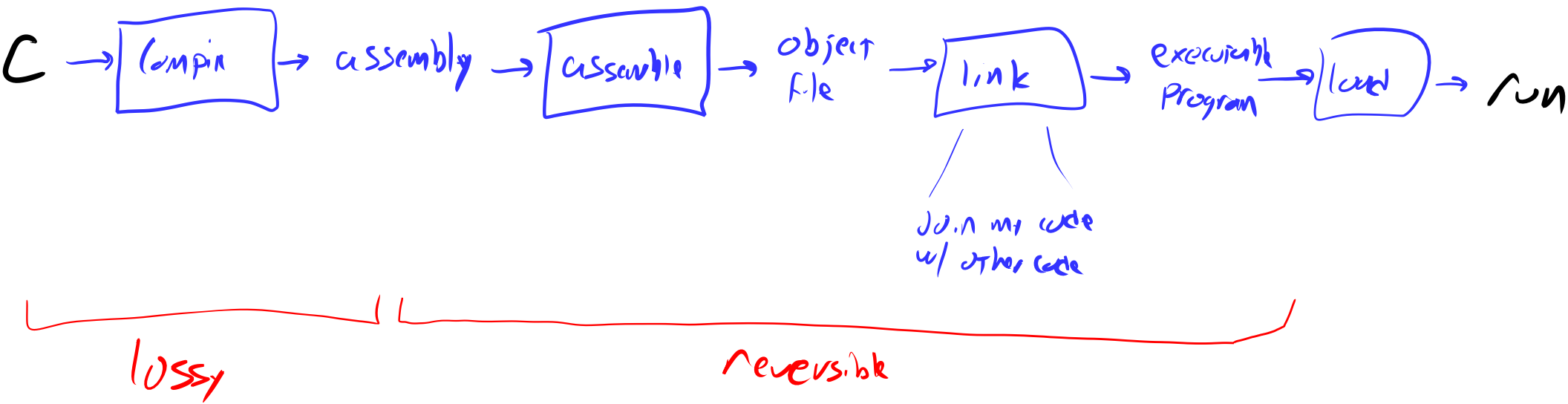
dialect

· Intel

· AT&T

ARM

Compilation Pipeline



Assembly

^{reg}
%rax
\$23
_{imm}

(%rax)
23
memory address

Operands

- • number
- register
- • address^(lea)
- value at address
_{usually}

\$0x123

%rax

0x123

(%rax)

2130(%rax, %rsp, 8)
_(%rax, 4)

$M[2130 + rax + (rsp * 8)]$

Order

instruction source, destination

add %rax, %rsp

rsp += rax