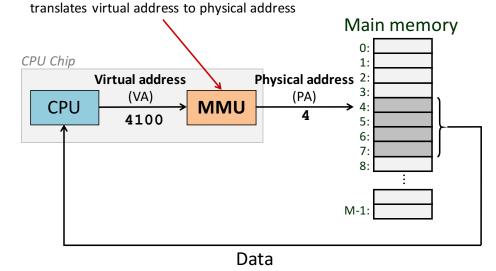


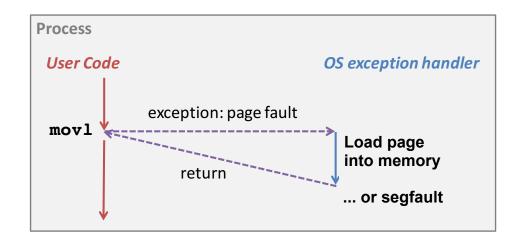
Address Translation

Memory Management Unit



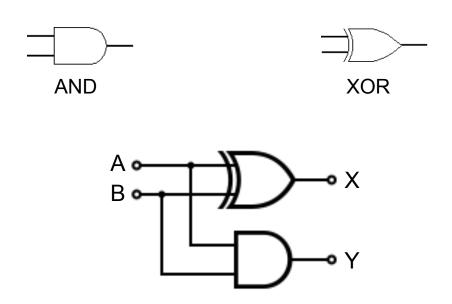
Bowdoin Sean Barker 3

Page Fault



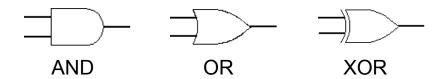
Bowdoin Sean Barker 4

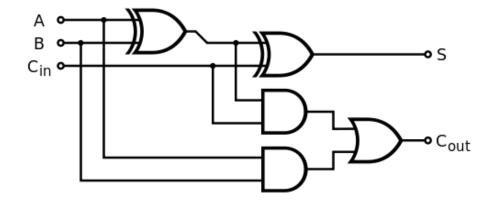
Circuits and Logic Gates



Bowdoin Sean Barker 5

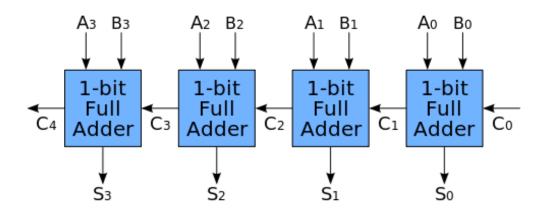
Full Adder





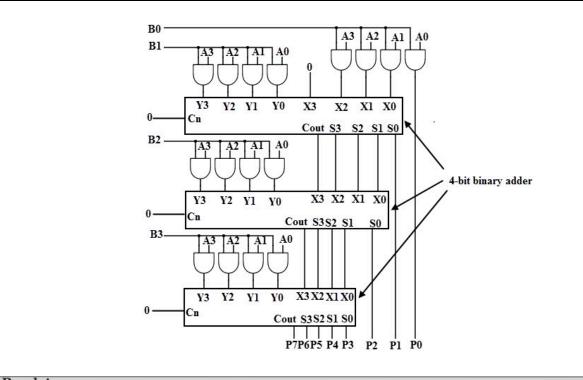
Bowdoin Sean Barker 6

4-Bit Full Adder



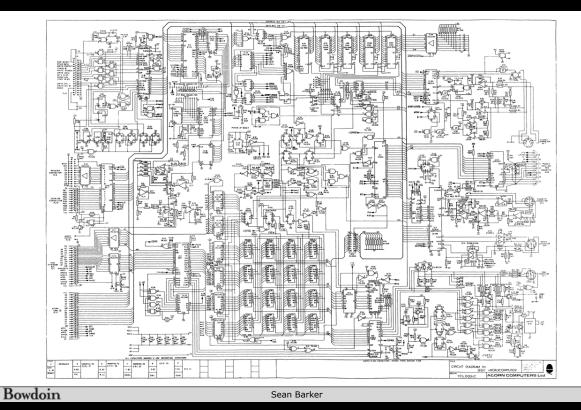
Bowdoin Sean Barker 7

4-Bit Binary Multiplier



Bowdoin Sean Barker 8

Microprocessor (1980's)



Big Ideas in Systems

- Abstraction
- Representation
- Performance
- Security + Reliability

