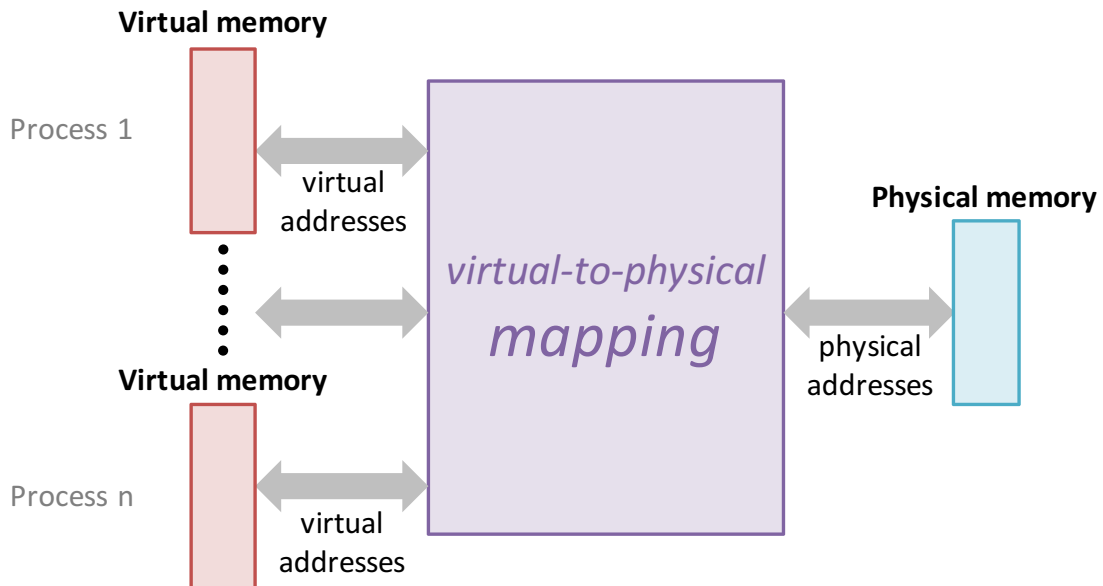
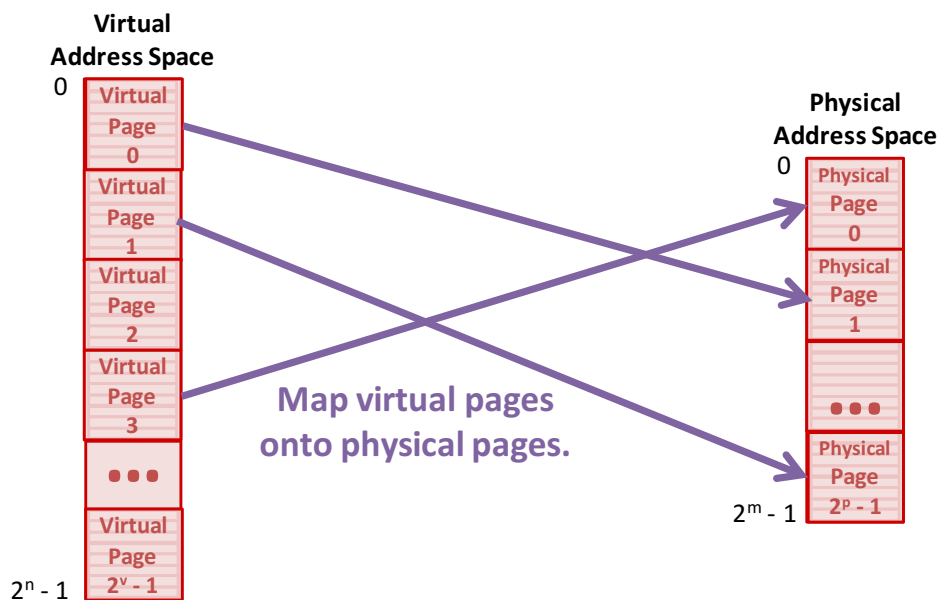


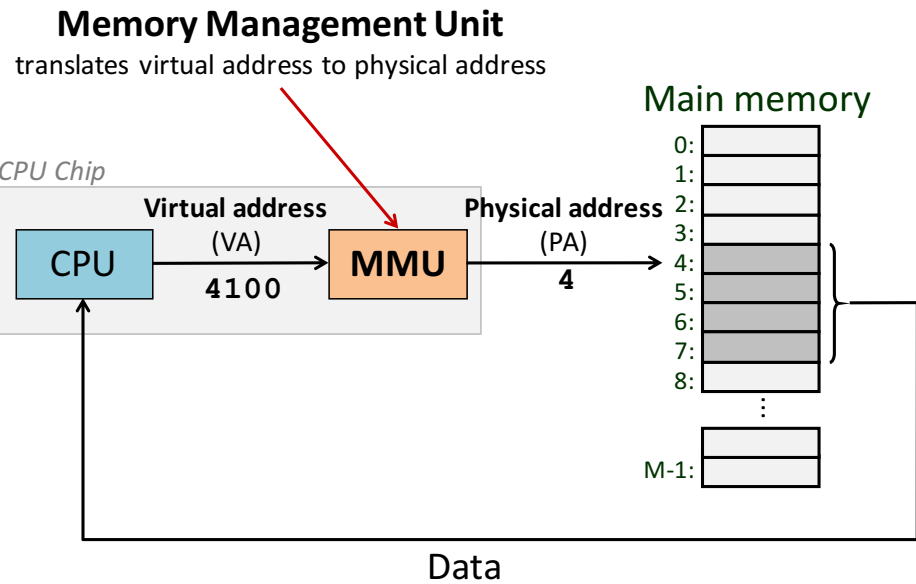
Virtual Memory



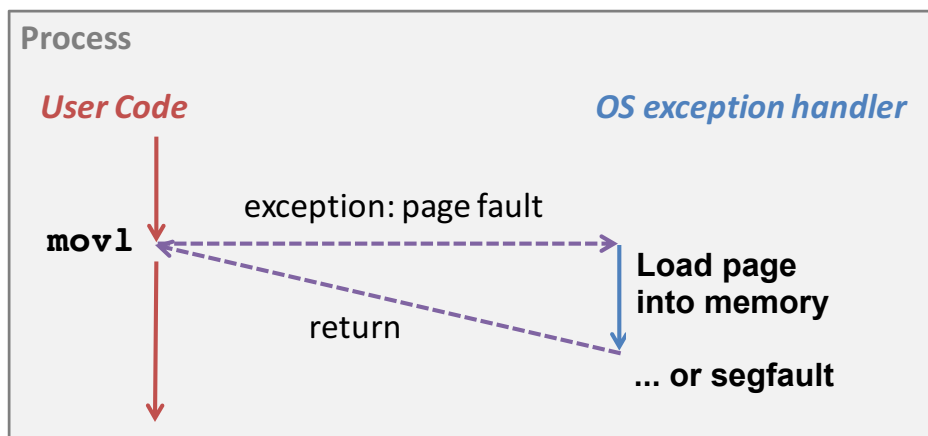
Memory Pages



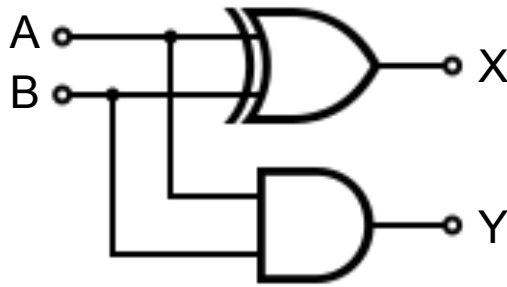
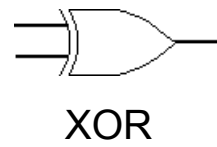
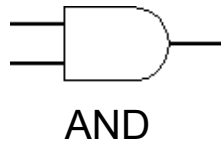
Address Translation



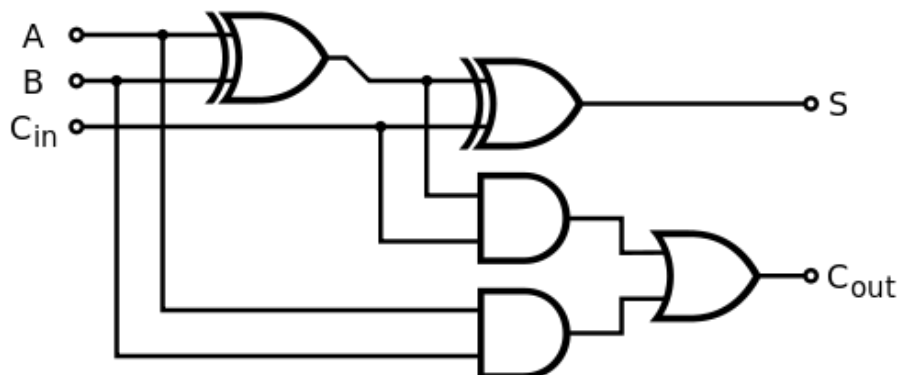
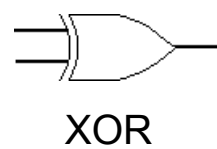
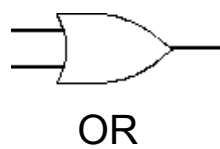
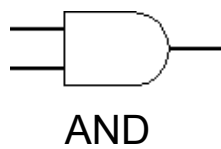
Page Fault



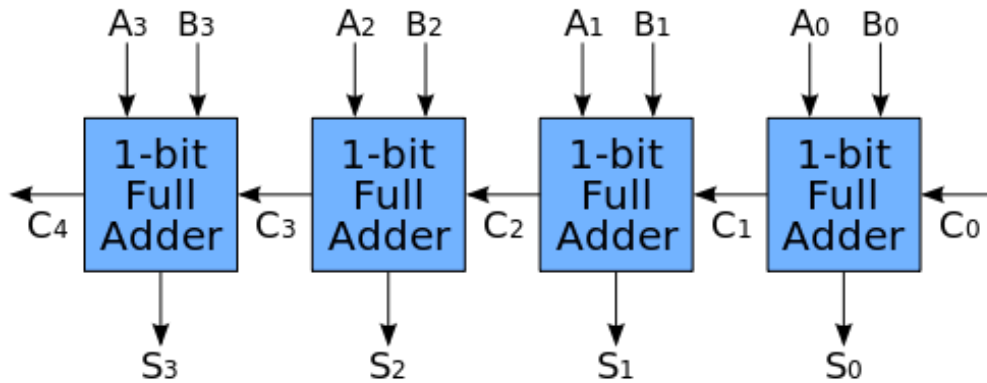
Circuits and Logic Gates



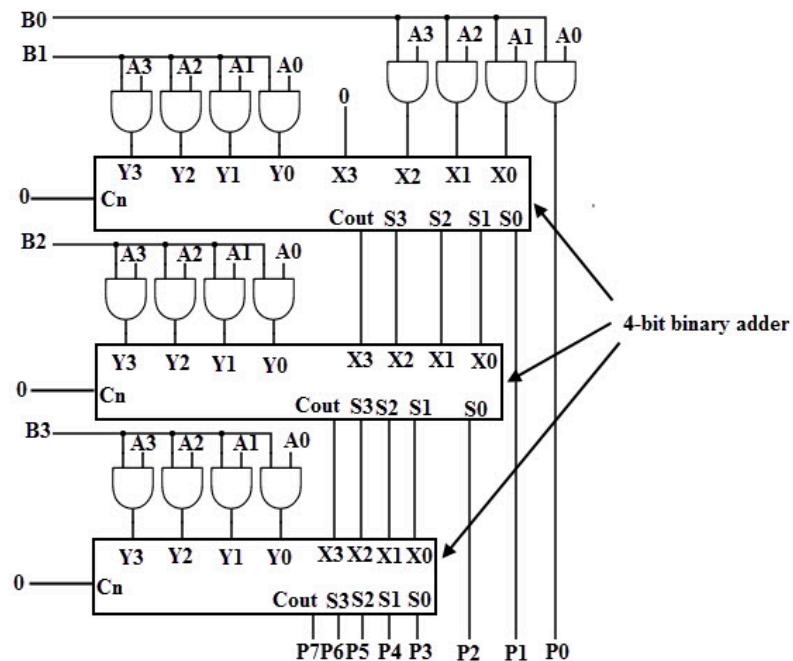
Full Adder



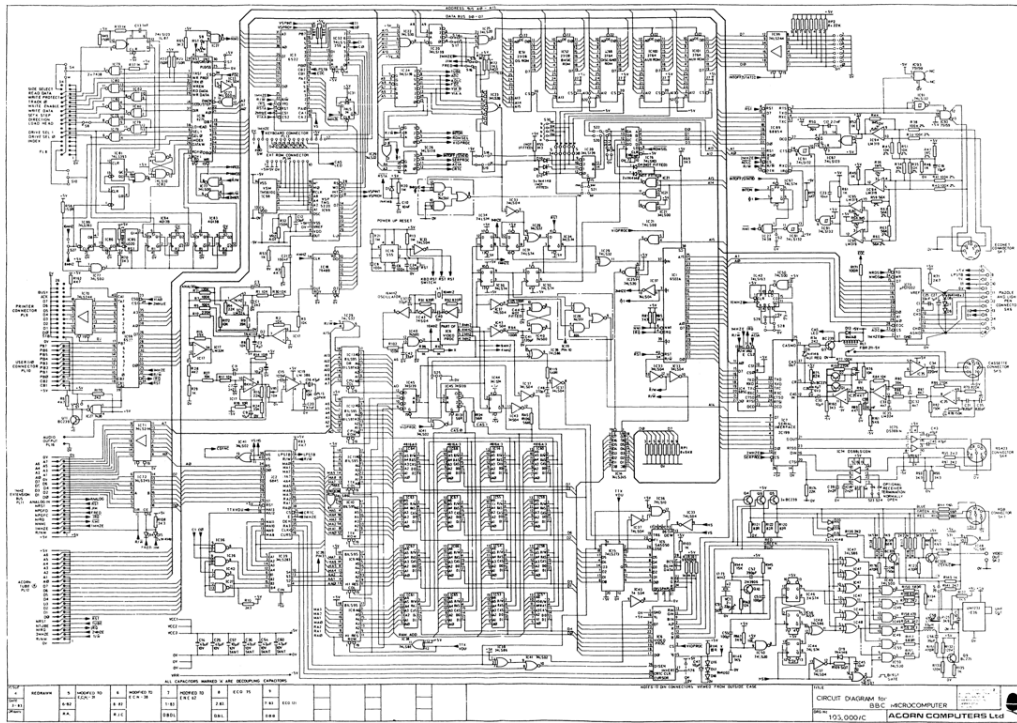
4-Bit Full Adder



4-Bit Binary Multiplier



Microprocessor (1980's)



Big Ideas in Systems

- Abstraction
- Representation
- Performance
- Security + Reliability

