Lecture 2 - Comp. Arch. Review

Basic Computer Organization:
    Control (FSM)
    Memory, MAR/MDR etc.
    Fast storage (registers)
    Arithemetic Units
    Program Counter,

ISAs:
    - Definition
    - Classes (load store, register, stack)
    - Memory Addressing
    - Addressing modes: immediate, displacement, scal4ed index register, etc. PC relative,
    - Operands: encoding, size
    - Address width/addressability
    - Operations: logical, floating point, data transfer, arithmetic, control flow
    - Control flow: branch, jump, procedure call
    - Instr encoding: variable/fixed length. Tradeoffs, etc.

The Instruction Cycle

How do we fit addresses in a fixed-width instruction??