* Cs.ua.edu/466
  + Version of Pep/8 is located here.
* Computer
  + A programmable electronic device that can store, retrieve, and
* Machine language
  + Language made up of binary coded instructions built into the hardware of a particular computer and used directly by the computer
  + The fastest code since there is no translation
* Characteristics of machine language
  + Every processor type has its own set of specific machine instructions
  + The relationship between the processor and the instructions it can carry out is completely integrated
  + Each machine-language instruction does only one very low-level task
* Virtual computer
  + A hypothetical machine designed to contain the important features of a real computer that we want to illustrate
* Pep/8 Registers/Status Bits Covered
  + The program counter (PC) contains the address of the next instruction to be executed
  + The instruction register (IR) contains a copy of the instruction being executed
  + The accumulator (a register)
* Architecture of pep/8
  + Has 16 bit accumulator, program counter and instruction register
  + Memory addresses are in hex
* Instruction format
  + First 4 bits are operation code
  + Register specifier is the 5th bit
  + Addressing mode is the remaining 3
* Operation code
  + which instruction is to be carried out
* Register specifier
  + Which register is to be used
* Addressing-mode specifier
  + Immediate
    - Data located in operand
  + Direct
    - Data located in memory; has the address to find it
* Character input and out are 5 bits instead of 4
* Immediate has 0000 as the last 4 bits of the instruction; direct has 0001
* ASCII
  + H = 72
  + E = 101
  + l = 108
  + l = 108
  + o = 111
* Pep/8
  + Only interested in the Source Code window; will generate the other code
  + Anything after “;” is a comment
  + CHARO is character output; CHARI is character input
  + “zz” is the escape character for the machine language
  + Core dump = memory dump