# Pixie Virtual Machine

The PixieVM CPU is a 16-bit Big Endian CPU with 4 16-bit general purpose registers A, B, C, D, one 16-bit index register X, a 16-bit stack pointer SP, a 16-bit instruction pointer IP and a 16-bit flags register FLAGS. FLAGS holds various CPU state flags ie. negative, overflow, break, interrupt disable, zero and carry in the following format:

**---- ---- NV-- BIZC**

Each general purpose register can be referred to by it's high and low byte:

**----------- ----------- ----------- -----------  
| AX | | BX | | CX | | DX |  
----------- ----------- ----------- -----------  
| AH | AL | | BH | BL | | CH | CL | | DH | DL |  
----------- ----------- ----------- -----------**