

ihCPU Registers

- Accumulators : Accumulate Answers
- General-Purpose Registers : Hold Data
 - Source and Destination operands
- Doubled Registers : Double size of registers
 - Combines 2 8-bit registers to form a 16 bit register
- Pointer Registers : Hold Addresses
- Stack Pointer Register : Dedicated to addressing memories
 - Used to implement subroutines
- Index Registers : Address Memories
 - Add an offset value to the register contents to generate the effective address
- Segment Registers : Address Memory
 - Address segments of memory
- Condition Code Register : COntains flags and status
 - Holds condition code bits generated by the processor during execution of instructions
 - Some bits are used for control - EX: Interrupt mask

CPU12

- Accumulators A, B, D
 - Two 8 bit accumulators
 - Concat into one 16 bit
- Index Registers
 - Used for inde addressing
 - Also used in some arithmetic operations
- Stack Pointers
 - Points to the bottom of the stack
 - Neext initilization
- Program Counter
 - For addressing instructions in memory
- Condition code register

- Status flags

Data types used in MC68HC12

- Bit
- 3-Bit unsigned int
- 5-Bit unsigned int
- 8-Bit signed and unsigned ints
- 9-Bit signed int
- 16-bit signed and unsigned ints
- 16-bit effective addresses
- 32-bit signed and unsigned ints

CCR

- 0 - C - Carry or borrow occurs
- 1 - V - Two's complement overflow occurs
- 2 - Z - If the result is zero
- 3 - N - Most significant bit of the result is set
- 5 - H - Half Carry
- 4 - I - Interrupt Mask
- 6 - X - External Interrupt Mark
- 7 - S - Stop Disable