

Condition Codes (Flags)

- Processor performs tests on the result of each instruction
- 5 tests w/ results stored as 1=true/0=false in SR (Status Reg.)
 - X = eXtended Flag
 - Used for Extended Precision Arithmetic
 - Usually set the same as the C flag
 - N = Negative Flag
 - Tests if the result is negative
 - Just a copy of the MSB of result
 - Z = Zero Flag
 - Tests if the result is equal to 0
 - V = 2's complement oVerflow Flag
 - Set if $p+p=n$ or $n+n=p$
 - C = Carry Flag (Unsigned Overflow Flag)
 - Set if (Cout=1 and Add op.) or (Cout=0 and Sub. Op)

Instructions & Condition Codes

- Different instructions affect the condition codes differently
- Refer to instruction data sheets for instruction-specific effects
- General effects guidelines are as follows

	X	N	Z	V	C
MOVE	-	*	*	0	0
ADD/SUB/CMP	* or -	*	*	*	*
LSx/ASx	*	*	*	0	*
Logic	-	*	*	0	0
Branches/Jumps	-	-	-	-	-

* = Set according to traditional or instruction-specific definition

- = Unaffected (unchanged from previous value)

0 = Cleared to 0