

Condition codes:

Condition Code	Action	Condition Code	Action
<b>HS</b>	Unsigned higher or same	<b>GE</b>	Signed Greater than or equal
<b>LO</b>	Unsigned lower	<b>LT</b>	Signed Less than
<b>HI</b>	Unsigned higher	<b>GT</b>	Signed Greater than
<b>LS</b>	Unsigned lower or same	<b>LE</b>	Signed Less than or equal
<b>EQ</b>	Equal	<b>NE</b>	Not equal

Note: Use the above codes with the instructions to do conditional execution of instructions. e.g., 'BEQ' is 'Branch if equal'.

Instructions:

<i>B label</i>	Branch to <i>label</i>
<i>BL label</i>	Branch to <i>label</i> , store current PC in LR register
<i>BX Rm</i>	Branch to address in <i>Rm</i>

ADD Rd, Rn, op2	$Rd = Rn + op2$	RSB Rd, Rn, op2	$Rd = op2 - Rn$
ADC Rd, Rn, op2	$Rd = Rn + op2 + \text{carry}$	RSC Rd, Rn, op2	$RD = op2 - Rn - !\text{carry}$
SUB Rd, Rn, op2	$Rd = Rn - op2$	MUL Rd, Rn, Rm	$Rd = Rn * Rm$
SBC Rd, Rn, op2	$Rd = Rn - op2 - !\text{carry}$	UMULL RdLo, RdHi, Rn, Rd	$RdHi:RdLo = Rn * Rd$

MOV Rd, op2	$Rd = op2$	MOV Rd, Rn, shift	For example: Mov R0, R1, LSL #2
LDR Rd, [Rn]	$Rd = *Rn$	STR Rd, [Rx]	$*Rx = Rd$
LDRH Rd, [Rn]	Load 2 bytes from $*Rn$	STRH Rd, [Rx]	Store 2 bytes from Rd to $\&Rx$
LDRB Rd, [Rn]	Load byte from $*Rn$	STRB Rd, [Rx]	Store byte from Rd to $\&Rx$
LDRSH Rd, [Rn]	Load signed 2 bytes from $*Rn$	LDRSB Rd, [Rx]	Load signed byte from $*Rn$

AND Rd, Rn, op2	$Rd = Rn \& op2$	EOR Rd, Rn, op2	$Rd = Rn \text{ (xor) } op2$
ORR Rd, Rn, op2	$Rd = Rn   Op2$	MVN Rd, op2	$Rd = !op2$

ASR Rd, Rn, Rs	Arithmetic shift right		
LSR Rd, Rn, Rs	Logical shift right	LSL Rd, Rn, Rs	Logical shift left
ROR Rd, Rn, Rs	Rotate right	RRX Rd, Rn	Rotate right through carry

PUSH {reglist}	Push list of registers to stack	POP {reglist}	Pop from the stack to the list of registers
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