

Referencia rápida de instrucciones ARMv7

Aritméticas	Suma	add {s}<c> {<Rd>, <Rn>, <Rm> {,<shift>} adc {s}<c> {<Rd>, <Rn>, <Rm> {,<shift>} add {s}<c> {<Rd>, <Rn>, #<const> adc {s}<c> {<Rd>, <Rn>, #<const>	$Rd(n) := Rn + Rm^{(shifted)}$ $Rd(n) := Rn + Rm^{(shifted)} + C$ $Rd(n) := Rn + const$ $Rd(n) := Rn + const + C$	NZCV NZCV NZCV NZCV
	Resta	sub {s}<c> {<Rd>, <Rn>, <Rm> {,<shift>} sbc {s}<c> {<Rd>, <Rn>, <Rm> {,<shift>} rsb {s}<c> {<Rd>, <Rn>, <Rm> {,<shift>} sub {s}<c> {<Rd>, <Rn>, #<const> sbc {s}<c> {<Rd>, <Rn>, #<const> rsb {s}<c> {<Rd>, <Rn>, #<const>	$Rd(n) := Rn - Rm^{(shifted)}$ $Rd(n) := Rn - Rm^{(shifted)} - not(C)$ $Rd(n) := Rm^{(shifted)} - Rn$ $Rd(n) := Rn - const$ $Rd(n) := Rn - const - not(C)$ $Rd(n) := const - Rn$	NZCV NZCV NZCV NZCV NZCV NZCV
	Multiplicación	mul <c> {<Rd>, <Rn>, <Rm> mla <c> <Rd>, <Rn>, <Rm>, <Ra> mls <c> <Rd>, <Rn>, <Rm>, <Ra>	$Rd(n) := (Rn * Rm)$ $Rd := Ra + (Rn * Rm)$ $Rd := Ra - (Rn * Rm)$	
	División	udiv <c> <Rd>, <Rn>, <Rm> sdiv <c> <Rd>, <Rn>, <Rm>	$Rd := unsigned_32_bit(Rn/Rm); \text{ rounded towards } 0$ $Rd := signed_32_bit(Rn/Rm); \text{ rounded towards } 0$	
Bit operation	Lógicas	and {s}<c> {<Rd>, <Rn>, <Rm> {,<shift>} bic {s}<c> {<Rd>, <Rn>, <Rm> {,<shift>} orr {s}<c> {<Rd>, <Rn>, <Rm> {,<shift>} orn {s}<c> {<Rd>, <Rn>, <Rm> {,<shift>} eor {s}<c> {<Rd>, <Rn>, <Rm> {,<shift>} and {s}<c> {<Rd>, <Rn>, #<const> bic {s}<c> {<Rd>, <Rn>, #<const> orr {s}<c> {<Rd>, <Rn>, #<const> orn {s}<c> {<Rd>, <Rn>, #<const> eor {s}<c> {<Rd>, <Rn>, #<const>	$Rd(n) := Rn \& Rm^{(shifted)}$ $Rd(n) := Rn \& \sim Rm^{(shifted)}$ $Rd(n) := Rn Rm^{(shifted)}$ $Rd(n) := Rn \sim Rm^{(shifted)}$ $Rd(n) := Rn \oplus Rm^{(shifted)}$ $Rd(n) := Rn \& const$ $Rd(n) := Rn \& \sim const$ $Rd(n) := Rn const$ $Rd(n) := Rn \sim const$ $Rd(n) := Rn \oplus const$	NZCV NZCV NZCV NZCV NZCV NZCV NZCV NZCV NZCV
	Comparar	cmp <c> <Rn>, <Rm> {,<shift>} cmn <c> <Rn>, <Rm> {,<shift>} tst <c> <Rn>, <Rm> {,<shift>} teq <c> <Rn>, <Rm> {,<shift>}	$Rn - Rm^{(shifted)}$ $Rn + Rm^{(shifted)}$ $Rn \& Rm^{(shifted)}$ $Rn \oplus Rm^{(shifted)}$	NZCV NZCV NZCV NZCV
Movimientos registros	Move	mov {s}<c> <Rd>, <Rm> mov {s}<c> <Rd>, #<const>	$Rd := Rm$ $Rd := const$	NZ NZC
	Desplazar	lsl {s}<c> <Rd>, <Rm>, #<n> lsl {s}<c> <Rd>, <Rm>, <Rs> asr {s}<c> <Rd>, <Rm>, #<n> asr {s}<c> <Rd>, <Rm>, <Rs> lsl {s}<c> <Rd>, <Rm>, #<n> lsl {s}<c> <Rd>, <Rm>, <Rs>	$Rd := Rm^{(shifted-right \text{ by } <n>)}; \text{ filled with } 0\text{'s}, C := \text{last shifted-out}$ $Rd := Rm^{(shifted-right \text{ by } Rs)}; \text{ filled with } 0\text{'s}, C := \text{last shifted-out}$ $Rd := Rm^{(shifted-right \text{ by } <n>)}; \text{ filled with } MSB^2, C := \text{last shifted-out}$ $Rd := Rm^{(shifted-right \text{ by } Rs)}; \text{ filled with } MSB^2, C := \text{last shifted-out}$ $Rd := Rm^{(shifted-left \text{ by } <n>)}; \text{ filled with } 0\text{'s}, C := \text{last shifted-out}$ $Rd := Rm^{(shifted-left \text{ by } Rs)}; \text{ filled with } 0\text{'s}, C := \text{last shifted-out}$	NZC NZC NZC NZC NZC NZC
Load & Store	Offset	ldr <c> <Rd>, [<Rb> {, #+/-<offset>}] str <c> <Rs>, [<Rb> {, #+/-<offset>}]	$Rd := [Rb \pm offset]$ $[Rb \pm offset] := Rs$	
	Pre-offset	ldr <c> <Rd>, [<Rb>, #+/-<offset>]! str <c> <Rs>, [<Rb>, #+/-<offset>]!	$Rb := Rb \pm offset; Rd := [Rb];$ $Rb := Rb \pm offset; [Rb] := Rs;$	
	Post-offset	ldr <c> <Rd>, [<Rb>], #+/-<offset> str <c> <Rs>, [<Rb>], #+/-<offset>	$Rd := [Rb]; Rb := Rb \pm offset$ $[Rb] := Rs; Rb := Rb ! \pm offset$	
	Indexada	ldr <c> <Rd>, [<Rb>, <Ri> {, #<shift>}] str <c> <Rs>, [<Rb>, <Ri> {, #<shift>}]	$Rd := [Rb + Ri^{(shifted-left)}]$ $[Rb + Ri^{(shifted-left)}] := Rs$	
	Literal	ldr <c> <Rd>, =<label> ldr <c> <Rd>, [PC, #+/-<offset>]	$Rd := [label]$ $Rd := [PC \pm offset]$	
	Pila	pop {<lista de registros>} push {<lista de registros>}	Forma resumida de ldm sp! , <lista de registros> Forma resumida de stmdb sp! , <lista de registros>	
Salto		b <c> <label> bl <c> <label> bx <c> <Rm>	if c then $PC := label$ if c then $LR := PC_{next}; PC := label$ if c then $PC := Rm$	

Códigos condición		
<c>	Significa	Flags
eq	Equal	Z = 1
ne	Not equal	Z = 0
cs, hs	Carry set, Unsigned higher or same	C = 1
cc, lo	Carry clear, Unsigned lower	C = 0
mi	Minus, Negative	N = 1
pl	Plus, Positive or zero	N = 0
vs	Overflow	V = 1
vc	No overflow	V = 0
hi	Unsigned higher	C = 1 & Z = 0
ls	Unsigned lower or same	C = 0 Z = 1
ge	Signed greater or equal	N = V
lt	Signed less	N ≠ V
gt	Signed greater	Z = 0 & N = V
le	Signed less or equal	Z = 1 & N ≠ V
al	Always	cualquiera

Shift options	
<shift>	Significa

<omit>	no shifts or rotations, equivalent to LSL #0
LSL #<n>	logical shift left by <n> bits, 0 # n # 31
LSR #<n>	logical shift right by <n> bits, 1 # n # 32
ASR #<n>	arithmetic shift right by <n> bits, 1 # n # 32
ROR #<n>	rotate right by <n> bits, 1 # n # 31
RRX	rotate right by 1 bit through carry flag

Flags		
Flag	significa	Calculado como
N	Negative	MSB ² (Result) 1
Z	Zero	Result 0
C	Carry	Depends on instruction
V	Overflow	Signed overflow
Q	Saturated	Signed overflow (result saturated)