תרגום פקודות אסמבלי – SRC

Opc הבאים פנויים עבור קידוד פקודות חדשות – 7,10,11,16,17,18,19,25,30,31

opc	פקודת אסמבלי	הסבר הפקודה	תנאי
1	ld ra, c2	$R[ra] \leftarrow M[c2]$	$rb = 0$
1	ld ra, c2(rb)	$R[ra] \leftarrow M[c2 + R[rb]]$	$rb \neq 0$
2	ldr ra, c1	$R[ra] \leftarrow M[c1 + PC]$	
3	st ra, c2	$M[c2] \leftarrow R[ra]$	$rb = 0$
3	st ra, c2(rb)	$M[c2 + R[rb]] \leftarrow R[ra]$	$rb \neq 0$
4	str ra, c1	$M[c1 + PC] \leftarrow R[ra]$	
5	la ra, c2	$R[ra] \leftarrow c2$	$rb = 0$
5	la ra, c2(rb)	$R[ra] \leftarrow c2 + R[rb]$	$rb \neq 0$
6	lar ra, c1	$R[ra] \leftarrow c1 + PC$	
8	br rb	$PC = R[rb]$	$c3 < 2..0 >= 1$
8	brzr rb, rc	$if(R[rc] = 0)\ PC = R[rb]$	$c3 < 2..0 >= 2$
8	brnz rb, rc	$if(R[rc] \neq 0)\ PC = R[rb]$	$c3 < 2..0 >= 3$
8	brpl rb, rc	$if(R[rc] \geq 0)\ PC = R[rb]$	$c3 < 2..0 >= 4$
8	brmi rb, rc	$if(R[rc] < 0)\ PC = R[rb]$	$c3 < 2..0 >= 5$
9	brlnv ra	$R[ra] = PC$	$c3 < 2..0 >= 0$
9	brl ra, rb	$R[ra] = PC\ , PC = R[rb]$	$c3 < 2..0 >= 1$
9	brlzr ra, rb, rc	$R[ra] = PC\ , if(R[rc] = 0) PC = R[rb]$	$c3 < 2..0 >= 2$
9	brlnz ra, rb, rc	$R[ra] = PC\ , if(R[rc] \neq 0) PC = R[rb]$	$c3 < 2..0 >= 3$
9	brlpl ra, rb, rc	$R[ra] = PC\ , if(R[rc] \geq 0) PC = R[rb]$	$c3 < 2..0 >= 4$
9	brlmi ra, rb, rc	$R[ra] = PC\ , if(R[rc] < 0) PC = R[rb]$	$c3 < 2..0 >= 5$
12	add ra, rb, rc	$R[ra] = R[rb] + R[rc]$	
13	add$i$ ra, rb, $c2$	$R[ra] = R[rb] + c2$	
14	sub ra, rb, rc	$R[ra] = R[rb] - R[rc]$	
15	neg ra, rc	$R[ra] = -R[rc]$	
20	and ra, rb, rc	$R[ra] = R[rb]\ and\ R[rc]$	
21	and$i$ ra, rb, $c2$	$R[ra] = R[rb]\ and\ c2$	
22	or ra, rb, rc	$R[ra] = R[rb]\ or\ R[rc]$	
23	or$i$ ra, rb, $c2$	$R[ra] = R[rb]\ or\ c2$	
24	not ra, rc	$R[ra] = not(R[rc])$	
26	shr ra, rb, $c3$	$R[ra] = \boldsymbol{shift\ right\ of\ R[rb]}, c3 < 4..0 > times$	$c3 < 4..0 >\neq 0$
26	shr ra, rb, rc	$R[ra] = \boldsymbol{shift\ right\ of\ R[rb]}, R[rc] < 4..0 > times$	$c3 < 4..0 >= 0$
27	shra ra, rb, $c3$	$R[ra] = \boldsymbol{shift\ right\ arith\ of\ R[rb]}, c3 < 4..0 > times$	$c3 < 4..0 >\neq 0$
27	shra ra, rb, rc	$R[ra] = \boldsymbol{shift\ right\ arith\ of\ R[rb]}, R[rc] < 4..0 > times$	$c3 < 4..0 >= 0$
28	shl ra, rb, $c3$	$R[ra] = \boldsymbol{shift\ left\ of\ R[rb]}, c3 < 4..0 > times$	$c3 < 4..0 >\neq 0$
28	shl ra, rb, rc	$R[ra] = \boldsymbol{shift\ left\ of\ R[rb]}, R[rc] < 4..0 > times$	$c3 < 4..0 >= 0$
29	shc ra, rb, $c3$	$R[ra] = \boldsymbol{shift\ circularly\ of\ R[rb]}, c3 < 4..0 > times$	$c3 < 4..0 >\neq 0$
29	shc ra, rb, rc	$R[ra] = \boldsymbol{shift\ circularly\ of\ R[rb]}, R[rc] < 4..0 > times$	$c3 < 4..0 >= 0$