

Green sheet ISA Pipeline CPU

Stall						
Id			Null			
Type	Op	Null				
31:30	29	28:26	25:0			
NOP	00	0	000	000000000000000000000000		
END	00	1	000	000000000000000000000000		

	Data register-register						
	Id			Registers			Null
	Type	Op	I	RD	RA	RB	
	31:30	29:27	26	25:22	21:18	17:14	
ADD	01	000	0	xxxx	xxxx	xxxx	0000000000000000
SUB	01	001	0	xxxx	xxxx	xxxx	0000000000000000
AND	01	010	0	xxxx	xxxx	xxxx	0000000000000000
OR	01	011	0	xxxx	xxxx	xxxx	0000000000000000
MOV	01	100	0	xxxx	0000	xxxx	0000000000000000
MOD	01	101	0	xxxx	xxxx	xxxx	0000000000000000
CMP	01	110	0	0000	xxxx	xxxx	0000000000000000

Data register-immediate						
Id			Registers			
Tipo	Op	I	RD	RA	Immediate	
31:30	29:27	26	25:22	21:18	17:0	
ADDI	01	000	1	xxxx	xxxx	xxxxxxxxxxxxxxxxxxxx
SUBI	01	001	1	xxxx	xxxx	xxxxxxxxxxxxxxxxxxxx
ANDI	01	010	1	xxxx	xxxx	xxxxxxxxxxxxxxxxxxxx
ORI	01	011	1	xxxx	xxxx	xxxxxxxxxxxxxxxxxxxx
MOVI	01	100	1	xxxx	0000	xxxxxxxxxxxxxxxxxxxx
MODI	01	101	1	xxxx	xxxx	xxxxxxxxxxxxxxxxxxxx
CMPI	01	110	1	0000	xxxx	xxxxxxxxxxxxxxxxxxxx

Memoria						
Id			Addressing			
Type	Op	Null	RD	RA	Immediate	
31:30	29	28:26	25:22	21:18	17:0	
LDR	10	0	000	xxxx	xxxx	xxxxxxxxxxxxxxxxxxxx
STR	10	1	000	xxxx	xxxx	xxxxxxxxxxxxxxxxxxxx

	Control				
	Id			Null	Instruction number
	Type	Op	Null		Immediate
	31:30	29:28	27:26	25:18	17:0
JMP	11	00	00	00000000	xxxxxxxxxxxxxxxxxxxx
JEQ	11	01	00	00000000	xxxxxxxxxxxxxxxxxxxx