MyCPUDocumentation

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April 10, 2023

1 Introduction

Contents

2 InstructionClockCycle

Instruction	T_0	T_1	T_2	T_3	T_4	T_5
mv	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=rY or _IR8_IR8_0 rX_in=1 Done=1		
mvt	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=_IR8_IR8_0 rX_in=1 Done=1		
add	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=rX A_in=1	Select=rY or _IR8_IR8_0 G_in=1	Select=_G rX_in=1 Done=1
sub	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=rX A_in=1	Select=rY _IR8_IR8_0 G_in=1 AddSub=1	Select=_G rX_in=1 Done=1
and	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=rX A_in=1	Select=rY _IR8_IR8_0 G_in=1 ALU_and=1	Select=_G rX_in=1 Done=1
ld	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=rY ADDR_in=1	wait	Select=_DIN rX_in=1 Done=1
st	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=rY ADDR_in=1	Select=rX W_D=1 Done=1	
b	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=_PC A_in=1	Select=_IR8_IR8_0 G_in=1	Select=_G pc_in=1
beq	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=_PC A_in=1 if(zout==1'b0) Done=1	Select=_IR8_IR8_0 G_in=1	Select=_G pc_in=1
bne	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=_PC A_in=1 if(zout==1'b1) Done=1	Select=_IR8_IR8_0 G_in=1	Select=_G pc_in=1
bcc	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=_PC A_in=1 if(cout==1'b1) Done=1	Select=_IR8_IR8_0 G_in=1	Select=_G pc_in=1
bcs	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=_PC A_in=1 if(zout==1'b0) Done=1	Select=_IR8_IR8_0 G_in=1	Select=_G pc_in=1

Instruction	T_0	T_1	T_2	T_3	T_4	T_5
bpl	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=_PC A_in=1 if(nout==1'b1) Done=1	Select=_IR8_IR8_0 G_in=1	Select=_G pc_in=1
bne	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=_PC A_in=1 if(zout==1'b0) Done=1	Select=_IR8_IR8_0 G_in=1	Select=_G pc_in=1
bl	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=_PC A_in=1 r6_in=1	Select=_IR8_IR8_0 G_in=1	Select=_G pc_in=1
push	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	SP_Decr=1	Select=rY ADDR_in=1	Select=rX DOUT_in=1 W_D Done=1
pop	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=rY ADDR_in=1 SP_Incr=1	wait	Select=_DIN rX_in Done=1
cmp	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=rX A_in=1	Select=rY or _IR8_IR8_0 AddSub=1 F_in=1 Done=1	
lsl	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=rX A_in=1	Select=rY or _IR8_IR8_0 do_shift=1 F_in=1 G_in=1	Select=G rX_in Done=1
asl	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=rX A_in=1	Select=rY or _IR8_IR8_0 do_shift=1 F_in=1 G_in=1	Select=G rX_in Done=1
lsr	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=rX A_in=1	Select=rY or _IR8_IR8_0 do_shift=1 F_in=1 G_in=1	Select=G rX_in Done=1
ror	Select=_PC ADDR_in=1 pc_incr=1	wait	IR_in	Select=rX A_in=1	Select=rY or _IR8_IR8_0 do_shift=1 F_in=1 G_in=1	Select=G rX_in Done=1