

TWIN-64

Architecture Document

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Introduction

Instruction Formats

Grp	OpCode	Reg R	0	U-IMM-20				
2	4	4	2	20				

Grp	OpCode	Reg R	Opt 1	S-IMM-19				
2	4	4	3	19				

Grp	OpCode	Reg R	Opt 1	Reg B	S-IMM-15			
2	4	4	3	4	15			

Grp	OpCode	Reg R	Opt 1	Reg B	Opt 2	S-IMM-13 / special		
2	4	4	3	4	2	13		

Grp	OpCode	Reg R	Opt 1	Reg B	Opt 2	Reg A	S-IMM-9 / special	
2	4	4	3	4	2	4	9	

This book

Instruction Set Reference

add general remarks, description format, etc.

ADD Integer Addition

Syntax

ADD RegR, RegB, RegA
ADD RegR, RegB, Immed15
ADD RegR, Immed13(RegB)
ADD RegR, RegX (RegB)

Format

The ADD instruction uses the register, the immediate, the indexed and the register indexed instruction formats.

0	1	Reg R	0	Reg B	Opt 2	Reg A	S-IMM-9 / special
2	4	4	3	4	2	4	9

0	1	Reg R	0	Reg B	S-IMM-15		
2	4	4	3	4	15		

1	1	Reg R	0	Reg B	dw	S-IMM-13 / special	
2	4	4	3	4	2	13	

1	1	Reg R	0	Reg B	dw	Reg X	0
2	4	4	3	4	2	4	9

Description

Adds RegR and RegB, storing result in RegR.

Operation

RegR <- RegB + RegA (register format)
RegR <- RegB + immOperand() (immediate format)
RegR <- RegR + memOperand() (indexed formats)

Exceptions

OVERFLOW_TRAP
ALIGNMENT_TRAP
mem ref traps...

Notes

None.