Assembler Guide

Instr.	OP-Code	First Operand	Second Operand
Memory Instructions (5)			
LDM R_dst, Imm	10010	R_dst_2 R_dst_1 R_dst_0	I_7 I_6 I_5 I_4 I_3 I_2 I_1 I_0
LDD R_src, R_dst	10011	R_dst_2 R_dst_1 R_dst_0	R_src_2 R_src_1 R_src_0
STD R_src, R_dst	10000	R_dst_2 R_dst_1 R_dst_0	R_src_2 R_src_1 R_src_0
PUSH R_dst	10100	R_dst_2 R_dst_1 R_dst_0	xxxxxxxx
POP R_dst	10111	R_dst_2 R_dst_1 R_dst_0	xxxxxxxx
Branch Instructions (4)			
JZ R_dst	11000	R_dst_2 R_dst_1 R_dst_0	xxxxxxxx
JN R_dst	11001	R_dst_2 R_dst_1 R_dst_0	xxxxxxxx
JC R_dst	11010	R_dst_2 R_dst_1 R_dst_0	xxxxxxxx
JMP R_dst	10011	R_dst_2 R_dst_1 R_dst_0	xxxxxxxx
ALU With Immediate (2)			
SHL R_dst	11110	R_dst_2 R_dst_1 R_dst_0	I_7 I_6 I_5 I_4 I_3 I_2 I_1 I_0
SHR R_dst	11111	R_dst_2 R_dst_1 R_dst_0	I_7 I_6 I_5 I_4 I_3 I_2 I_1 I_0
Port Instructions (2)			
IN R_dst	11100	R_dst_2 R_dst_1 R_dst_0	xxxxxxxx
OUT R_dst	11101	R_dst_2 R_dst_1 R_dst_0	xxxxxxxx

Special Instructions (6)			
NOP	00000	xxxxxxxx	xxxxxxxx
SETC	00111	xxxxxxxx	xxxxxxxx
CLRC	00110	xxxxxxxx	xxxxxxxx
CALL R_dst	00101	R_dst_2 R_dst_1 R_dst_0	xxxxxxxx
RET	00010	xxxxxxxx	xxxxxxxx
RTI	00011	xxxxxxxx	xxxxxxxx
ALU (8)			
NOT R_dst	01001	R_dst_2 R_dst_1 R_dst_0	xxxxxxxx
ADD R_src, R_dst	01010	R_dst_2 R_dst_1 R_dst_0	R_src_2 R_src_1 R_src_0
SUB R_src, R_dst	01011	R_dst_2 R_dst_1 R_dst_0	R_src_2 R_src_1 R_src_0
AND R_src, R_dst	01100	R_dst_2 R_dst_1 R_dst_0	R_src_2 R_src_1 R_src_0
OR R_src, R_dst	01101	R_dst_2 R_dst_1 R_dst_0	R_src_2 R_src_1 R_src_0
INC R_dst	01110	R_dst_2 R_dst_1 R_dst_0	xxxxxxxx
DEC R_dst	01111	R_dst_2 R_dst_1 R_dst_0	xxxxxxxx
MOV R_src, R_dst	01000	R_dst_2 R_dst_1 R_dst_0	R_src_2 R_src_1 R_src_0