

!0002 BIPAR

.TITLE BIPAR ; BASIC INSTRUCTION DEFS.

000010

.RDX 8

;INSTRUCTION DEFINITION FILE

.XPNG

;DELETE ALL SYMBOLS

;MULTIPLY/DIVIDE

073101 .DUSR DIV=073101

073301 .DUSR MUL =073301

;DEFINE MEMORY REFERENCE INSTRUCTIONS THAT DON'T REQUIRE AC'S

000000 .DMR JMP = 000000

004000 .DMR JSR=004000

010000 .DMR ISZ=010000

014000 .DMR DSZ=014000

;DEFINE MEMORY REFERENCE INSTRUCTIONS THAT REQUIRE AC'S

020000 .DMRA LDA=020000

040000 .DMRA STA=040000

;DEFINE THE ALC INSTRUCTIONS

100000 .DALC COM=100000

100400 .DALC NEG=100400

101000 .DALC MOV=101000

101400 .DALC INC=101400

102000 .DALC ADC=102000

102400 .DALC SUB=102400

103000 .DALC ADD=103000

103400 .DALC AND=103400

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02          ;DEFINE THE ALC SKIPS
03 000001 .DUSR SKP=1
04 000002 .DUSR SZC=2
05 000003 .DUSR SAC=3
06 000004 .DUSR SZR=4
07 000005 .DUSR SNR=5
08 000006 .DUSR SEZ=6
09 000007 .DUSR SRN=7
10
11          ;DEFINE THE IO INSTRUCTIONS
12 060000 .DIO NIO=060000
13 060400 .DIOA DIA=060400
14 061000 .DIOA DOA=061000
15 061400 .DIOA DIR=061400
16 062000 .DIOA DOR=062000
17 062400 .DIOA DIC=062400
18 063000 .DIOA DOC=063000
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20          ;DEFINE THE IO SKIP INSTRUCTIONS
21 063400 .DIO SKPBN=063400
22 063500 .DIO SKPBZ=063500
23 063600 .DIO SKPDN=063600
24 063700 .DIO SKPDZ=063700
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27          ;DEFINE CPU DEVICE
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29 000077 .DUSR CPU=      77
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31          ;DEFINE SPECIAL INSTRUCTIONS
32 060177 .DUSR INTEN=NIOS CPU          ;INTERRUPT ENABLE
33 060277 .DUSR INTDS=NIOC CPU          ;INTERRUPT DISABLE
34 060477 .DIAC READS=DIA 0,CPU        ;READ THE SWITCHES
35 061477 .DIAC INTA= DIB 0,CPU        ;INTEPRUPT ACKNOWLEDGE
36 062077 .DIAC MSKO= DOB 0,CPU        ;MASK OUT
37 062677 .DUSR TORST=DICC 0,CPU      ;TO RESET
38 063077 .DUSR HALT= DOC 0,CPU        ;HALT
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41 102414 .DALC SEQ=      SUB#  0,0 SZR          ; SKIP IF S=D
42 102415 .DALC SNE=      SUB#  0,0 SNR          ; SKIP IF S<>D
43 102033 .DALC SLS=      ADCZ# 0,0 SNC          ; SKIP IF S<D
44 102433 .DALC SNG=      SUBZ# 0,0 SNC          ; SKIP IF S<=D
45 102032 .DALC SNL=      ADCZ# 0,0 SZC          ; SKIP IF S>=D
46 102432 .DALC SGR=      SUBZ# 0,0 SZC          ; SKIP IF S>D
47 102414 .DALC INE=      SEQ    0,0              ; IF S<>D THEN EXECUTE
48 102415 .DALC IEQ=      SNE    0,0              ; IF S=D THEN EXECUTE
49 102033 .DALC INL=      SLS    0,0              ; IF S>=D THEN EXECUTE
50 102433 .DALC IGR=      SNG    0,0              ; IF S>D THEN EXECUTE
51 102032 .DALC ILS=      SNL    0,0              ; IF S<D THEN EXECUTE
52 102432 .DALC ING=      SGR    0,0              ; IF S<=D THEN EXECUTE
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55          .EOT

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