

29.APR.1975

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1      .TITLE BINIOP
2      .GLOBL BINIOP,.DA
3      / 9.3.72 JOE ATIYAH BINIOP(ST,N,DT,M)
4      / IF M=0 WRITES IN IOPS BINARY N WORDS FROM ST TO DEVICE
5      / ON SLOT DT IN BLOCKS OF 251 DATA WORDS,FORTTRAN RECORD FORMAT
6      /IF M=1 READS N WORDS FROM DEVICE TO ST ONWARDS
7      00000 R 740040 A  BINIOP XX
8      00001 R 120550 E   JMS* .DA
9      00002 R 600007 R   JMP .+1+4
10     00003 R 000000 A   START 0
11     00004 R 000000 A   N 0
12     00005 R 000000 A   DAT 0
13     00006 R 000000 A   MODE 0
14     00007 R 220003 R   LAC* START
15     00010 R 723777 A   AAC -1
16     00011 R 060551 R   DAC* (11 / SET PTR TO START
17     00012 R 140544 R   DZM LFLG / SET WHEN LAST BLOCK O/P
18     00013 R 220006 R   LAC* MODE
19     00014 R 740200 A   SZA / WRITE MODE
20     00015 R 600102 R   JMP READ
21     00016 R 140547 R   DZM BLCNT
22     00017 R 200552 R   LAC (177000
23     00020 R 040144 R   DAC BUFF / SET HEADER WORD
24     00021 R 220005 R   LAC* DAT
25     00022 R 040064 R   DAC WITE
26     00023 R 040070 R   DAC WAIT1 / PLUG DAT SLOT
27     00024 R 220004 R   LAC* N / TOTAL NO OF WORDS
28     00025 R 040545 R   DAC CNT
29     00026 R 723404 A   WRLUP AAC -374 / 252 DECIMAL
30     00027 R 740100 A   SMA / LAST BLOCK
31     00030 R 600034 R   JMP NOLAST
32     00031 R 200545 R   LAC CNT
33     00032 R 440544 R   ISZ LFLG
34     00033 R 741000 A   SKP
35     00034 R 200553 R   NOLAST LAC (373 / COPY 251 WORDS
36     00035 R 740031 A   TCA
37     00036 R 040546 R   DAC COPY / -NO OF WORDS IN THIS BLOCK
38     00037 R 200554 R   LAC (BUFF+2
39     00040 R 060555 R   DAC* (10 / SET PTR FOR COPYING TO BUFF
40     00041 R 220011 A   WRCOP LAC* 11 / READ FROM DATA ARE
A
41     00042 R 060010 A   DAC* 10 / COPY TO BUFF
42     00043 R 440546 R   ISZ COPY / EXIT ON LAST WORD
43     00044 R 600041 R   JMP WRCOP
44     00045 R 200544 R   LAC LFLG
45     00046 R 741200 A   SNA / LAST BLOCK
46     00047 R 600062 R   JMP SETBLK
47     00050 R 200547 R   LAC BLCNT
48     00051 R 240556 R   XOR (400000 / SET TOP BIT
49     00052 R 040547 R   DAC BLCNT
50     00053 R 200545 R   LAC CNT / NO DATA WORDS IN LAST BLOCK
51     00054 R 723003 A   AAC 3 / TOTAL NO WRDS INC. HEADER
52     00055 R 740031 A   TCA

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PAGE	2	BINOP	SRC	BINOP
53		00056	R 500557	R AND (-2
54		00057	R 740031	A TCA / ROUND UP TO EVEN NUMBER
55		00060	R 660710	A ALSS 10 / W.P.C. IN TOP 9 BITS
56		00061	R 040144	R DAC BUFF / SET HEADER
57		00062	R 200547	R SETBLK LAC BLCNT
58		00063	R 040146	R DAC BUFF+2 / SET RECORD BLOCK COUNT
59		00064	R	WITE .WRITE 0,0,BUFF,10 / IOPS BINARY,DAT SLOT PLUGGED
		00064	R 000000	A *G CAL+0*1000 0&777
		00065	R 000011	A *G 11
		00066	R 000144	R *G BUFF
				*G .DEC
		00067	R 777766	A *G -10
60		00070	R	WAIT1 .WAIT 0 / SLOT PLUGGED
		00070	R 000000	A *G CAL 0&777
		00071	R 000012	A *G 12
61		00072	R 200544	R LAC LFLG
62		00073	R 740200	A SZA
63		00074	R 620000	R JMP* BINOP / LAST BLOCK DONE
64		00075	R 440547	R ISZ BLCNT / UPDATE BLOCK COUNT
65		00076	R 200545	R LAC CNT
66		00077	R 723405	A AAC -373
67		00100	R 040545	R DAC CNT / UPDATE NO OF WORDS LEFT
68		00101	R 600026	R JMP WRLUP
69		00102	R 140545	R READ DZM CNT / NO OF WORDS READ
70		00103	R 220005	R LAC* DAT
71		00104	R 040106	R DAC REED
72		00105	R 040112	R DAC WAIT2
73		00106	R	REED .READ 0,0,BUFF,254 / IOPS BINARY,DAT SLOT PLUGGED
		00106	R 000000	A *G CAL+0*1000 0&777
		00107	R 000010	A *G 10
		00110	R 000144	R *G BUFF
				*G .DEC
		00111	R 777402	A *G -254
74		00112	R	WAIT2 .WAIT 0 / SLOT PLUGGED
		00112	R 000000	A *G CAL 0&777
		00113	R 000012	A *G 12
75		00114	R 200144	R LAC BUFF
76		00115	R 660510	A LRSS 10 / EVEN WORD COUNT
77		00116	R 723775	A AAC -3 / SUBTRACT HEADER WORDS
78		00117	R 740031	A TCA
79		00120	R 040546	R DAC COPY / -NO OF DATA WORDS (-1?)
80		00121	R 740031	A TCA
81		00122	R 340545	R TAD CNT
82		00123	R 040545	R DAC CNT / UPDATE WORDS READ
83		00124	R 740031	A TCA
84		00125	R 360004	R TAD* N / COUNT EXCEEDS TOTAL NO OF WRDS?
85		00126	R 741100	A SPA / NO . COPY CORRECT,SINCE ALL BUT LAST BLOCK
86				/ HAVE 254 WORDS(EVEN)
87		00127	R 440546	R ISZ COPY / CORRECT LAST BLOCK WRD COUNT
88		00130	R 200554	R LAC (BUFF+2
89		00131	R 060555	R DAC* (10 / SET PTR FOR COPYING FROM BUFF
90		00132	R 220010	A RDCOP LAC* 10 / READ FROM BUFF

PAGE	3	BINIOP	SRC	BINIOP
91		00133	R 060011	A DAC 11 / COPY TO DATA AREA
92		00134	R 440546	R ISZ COPY
93		00135	R 600132	R JMP RDCOP
94		00136	R 220004	R LAC* N
95		00137	R 740031	A TCA
96		00140	R 340545	R TAD CNT
97		00141	R 740100	A SMA / MORE WORDS LEFT
98		00142	R 620000	R JMP* BINIOP
99		00143	R 600106	R JMP REED
100				/ SYMBOL TABLE
101		00144	R	A BUFF .BLOCK 400
102		00544	R 000000	A LFLG 0 /LAST BLOCK INDICATOR
103		00545	R 000000	A CNT 0 / TOTAL WORD COUNT
104		00546	R 000000	A COPY 0 / BLOCK WORD COUNT
105		00547	R 000000	A BLCNT 0 / BLOCK COUNT
106			000000	A .END
		00550	R 000550	E *E
		00551	R 000011	A *L
		00552	R 177000	A *L
		00553	R 000373	A *L
		00554	R 000146	R *L
		00555	R 000010	A *L
		00556	R 400000	A *L
		00557	R 777776	A *L
		SIZE=00561		NO ERROR LINES

BINIOP	00000	1	2	7*	63	98			
BLCNT	00547	21	47	49	57	64	105*		
BUFF	00144	23	38	56	58	59	73	75	88
		101*							
CNT	00545	28	32	50	65	67	69	81	82
		96	103*						
COPY	00546	37	42	79	87	92	104*		
DAT	00005	12*	24	70					
LFLG	00544	17	33	44	61	102*			
MODE	00006	13*	18						
N	00004	11*	27	84	94				
NOLAST	00034	31	35*						
RDCOP	00132	90*	93						
READ	00102	20	69*						
REED	00106	71	73*	99					
SETBLK	00062	46	57*						
START	00003	10*	14						
WAIT1	00070	26	60*						
WAIT2	00112	72	74*						
WITE	00064	25	59*						
WRCOP	00041	40*	43						
WRLUP	00026	29*	68						
.DA	00550	2	8						