

LABEL 000000000PRINTER0016428901

OPROGRAM

March 17 1965
MIX Assembly Program, Test Deck, and Loading
Routine 1006

correction made 3/25/65 Jov in MSAIT

J1NN341
J2NN342
J3NN343
J4NN344
J5NN345
J6NN346
JXNN347
JANZ440
J1NZ441
J2NZ442
J3NZ443
J4NZ444
J5NZ445
J6NZ446
JXNZ447
JANP540
J1NP541
J2NP542
J3NP543
J4NP544
J5NP545
J6NP546
JXNP547
HINCA048
DEFC A1488
ENT A2488
ENN A3488
HINC 10499
DEFC 11499
ENT 12499
ENN 13499
HINC 20500
DEFC 21500
ENT 22500
ENN 23500
HINC 30511
DEFC 31511
ENT 32511
ENN 33511
HINC 40522
DEFC 41522
ENT 42522
ENN 43522
HINC 50533
DEFC 51533
ENT 52533
ENN 53533
HINC 60544
DEFC 61544
ENT 62544
ENN 63544
HINC X0555
DEFC X1555
ENT X2555
ENN X3555
CMP A5566
CMP 15577
CMP 25588
CMP 35599
CMP 45600
CMP 55601
CMP 65602
CMP X5603
BRIG 601-1-3
QU 001-1-4
ON 001-1-5
ALF 001-1-6
END 001-1-6



ASMBL


```

40 40 40 40 40 01115
40 40 40 40 40 01116
40 40 40 40 40 01117
40 40 40 40 40 01118
40 40 40 40 40 01119
40 40 40 40 40 01120
40 40 40 40 40 01121
40 40 40 40 40 01122
40 40 40 40 40 01123
40 40 40 40 40 01124
0000000127 01125
0000000000 01126
01127
0000000101 01151
01152
0000000169 01168
01169
0000000152 01185
0000000000 01186
0000000000 01187
0000000000 01188
0000000000 01189
0000000000 01190
0000000000 01191
0000000001 01192
01193
0203
0213
*
*
*
*
OH
00 15 16 17 00 1827
000000 00 00 1828
00 01 04 04 00 2877
000000 05 01 2878
00 22 24 02 00 1440
000000 05 01 1441
00 22 24 02 00 1490
000000 05 02 1491
00 14 24 13 00 1398
000000 05 02 1399
00 14 24 13 00 1448
000000 05 03 1449
00 04 09 25 00 1319
000000 05 03 1320
00 04 09 25 00 2369
000000 05 04 2370
00 15 24 14 00 0954
000000 05 04 0955
00 15 24 14 00 2004
000000 00 05 2005
00 03 08 01 19 1101
000000 01 05 1102
00 08 13 23 00 2151
000000 01 05 2152
00 08 13 23 00 1093
000000 01 05 1094
00 08 13 23 00 2143
000000 02 05 2144
00 22 13 01 00 1699
000000 01 06 1700
00 22 13 01 00 2749
000000 00 06 2750
00 22 13 01 00 1878
000000 00 06 1879
00 22 19 01 00 2928
000000 01 06 2929
00 22 19 01 00 0870
000000 01 06 0871
00 22 13 01 27 1920
000000 02 06 1921
00 22 13 01 27 1550
000000 03 06 1551
00 22 19 01 27 2600
000000 03 06 2601
00 22 13 03 00 1591
000000 03 06 1592
00 22 13 03 00 2641
000000 03 06 2642
00 22 13 03 00 1466

```

BOUND

FTABLE
BTABLE
*
*
*
OH

```

ALF .....
ALF .....
ALF .....
ALF .....
ALF .....
ALF .....
ALF .....
ALF .....
ALF .....
ALF .....
CON PBUF2
CON 0
ORIG PBUF2+24
CON PBUF1
ORIG RBUF1+16
CON RBUF2
ORIG RBUF2+16
CON RBUF1
CON 0
CON 0
CON 0
CON 0
CON 0
CON 0
CON 1
ORIG ++10
ORIG ++10
OPERATION CODES
EQU *
ORIG TABLE1+0977
ALF NOP
ORIG EQUIV+0977
CON 00,0(4=4)
ORIG TABLE1+0590
ALF ADD
ORIG EQUIV+0590
CON 01,5(4=4)
ORIG TABLE1+0548
ALF SUB
ORIG EQUIV+0548
CON 02,5(4=4)
ORIG TABLE1+0469
ALF MUL
ORIG EQUIV+0469
CON 03,5(4=4)
ORIG TABLE1+0104
ALF DIV
ORIG EQUIV+0104
CON 04,5(4=4)
ORIG TABLE1+0251
ALF NUM
ORIG EQUIV+0251
CON 05,0(4=4)
ORIG TABLE1+0243
ALF CHAR
ORIG EQUIV+0243
CON 05,1(4=4)
ORIG TABLE1+0849
ALF HLT
ORIG EQUIV+0849
CON 05,2(4=4)
ORIG TABLE1+1028
ALF SLA
ORIG EQUIV+1028
CON 06,0(4=4)
ORIG TABLE1+0020
ALF SRA
ORIG EQUIV+0020
CON 06,1(4=4)
ORIG TABLE1+0700
ALF SLAX
ORIG EQUIV+0700
CON 06,2(4=4)
ORIG TABLE1+0741
ALF SRAX
ORIG EQUIV+0741
CON 06,3(4=4)
ORIG TABLE1+0616
ALF SLC

```

1467
000000 04 06 225516
00 22 19 03 00 225517
000000 05 06 225507
00 14 16 25 05 225508
000000 01 07 225578
00 13 04 01 00 225582
000000 05 08 225583
00 13 04 31 00 225589
000000 05 09 225570
00 13 04 32 00 225578
000000 05 10 225579
00 13 04 33 00 225582
000000 05 11 225588
00 13 04 34 00 225599
000000 05 12 225588
00 13 04 35 00 225599
000000 05 13 225503
00 13 04 36 00 225596
000000 05 14 225546
00 13 04 27 00 225503
000000 05 15 225504
00 13 04 01 15 22554
000000 05 16 22555
00 13 04 31 15 225504
000000 05 17 22553
00 13 04 32 15 22555
000000 05 18 22556
00 13 04 33 15 22556
000000 05 19 225500
00 13 04 34 15 225549
000000 05 20 22550
00 13 04 35 15 225592
000000 05 21 225593
00 13 04 36 15 225536
000000 05 22 225537
00 13 04 27 15 225579
000000 05 23 225580
00 22 23 01 00 225529
000000 05 24 225530
00 22 23 31 00 225537
1354
1355

ORIG EQUIV+0616
CON 06,4(4-4)
ORIG TABLE1+0657
ALF SRC
ORIG EQUIV+0657
CON 06,5(4-4)
ORIG TABLE1+0482
ALF MOVE
ORIG EQUIV+0482
CON 07,1(4-4)
ORIG TABLE1+0019
ALF LDA
ORIG EQUIV+0019
CON 08,5(4-4)
ORIG TABLE1+0128
ALF LD1
ORIG EQUIV+0128
CON 09,5(4-4)
ORIG TABLE1+0971
ALF LD2
ORIG EQUIV+0971
CON 10,5(4-4)
ORIG TABLE1+0765
ALF LD3
ORIG EQUIV+0765
CON 11,5(4-4)
ORIG TABLE1+0558
ALF LD4
ORIG EQUIV+0558
CON 12,5(4-4)
ORIG TABLE1+0352
ALF LD5
ORIG EQUIV+0352
CON 13,5(4-4)
ORIG TABLE1+0145
ALF LD6
ORIG EQUIV+0145
CON 14,5(4-4)
ORIG TABLE1+0953
ALF LDX
ORIG EQUIV+0953
CON 15,5(4-4)
ORIG TABLE1+0304
ALF LDAN
ORIG EQUIV+0304
CON 16,5(4-4)
ORIG TABLE1+0412
ALF LD1N
ORIG EQUIV+0412
CON 17,5(4-4)
ORIG TABLE1+0205
ALF LD2N
ORIG EQUIV+0205
CON 18,5(4-4)
ORIG TABLE1+1049
ALF LD3N
ORIG EQUIV+1049
CON 19,5(4-4)
ORIG TABLE1+0842
ALF LD4N
ORIG EQUIV+0842
CON 20,5(4-4)
ORIG TABLE1+0636
ALF LD5N
ORIG EQUIV+0636
CON 21,5(4-4)
ORIG TABLE1+0429
ALF LD6N
ORIG EQUIV+0429
CON 22,5(4-4)
ORIG TABLE1+0187
ALF LDXN
ORIG EQUIV+0187
CON 23,5(4-4)
ORIG TABLE1+0397
ALF STA
ORIG EQUIV+0397
CON 24,5(4-4)
ORIG TABLE1+0504
ALF ST1
ORIG EQUIV+0504

000000 05 25 2404
2405
00 22 23 32 00 1148
1149
000000 05 26 2198
2199
00 22 23 33 00 0942
0943
000000 05 27 1992
1993
00 22 23 34 00 1785
1786
000000 05 28 2835
2836
00 22 23 35 00 1579
1580
000000 05 29 2629
2630
00 22 23 36 00 1372
1373
000000 05 30 2422
2423
00 22 23 27 00 1130
1131
000000 05 31 2180
2181
00 22 23 11 00 1283
1284
000000 02 32 2333
2334
00 22 23 29 00 1767
1768
000000 05 33 2817
2818
00 11 02 24 22 1308
1309
000000 00 34 2358
2359
00 09 16 03 00 1636
1637
000000 00 35 2686
2687
00 09 15 00 00 1898
1899
000000 00 36 2948
2949
00 16 24 23 00 1331
1332
000000 00 37 2381
2382
00 11 19 05 04 1717
1718
000000 00 38 2767
2768
00 11 14 17 00 1160
1161
000000 00 39 2210
2211
00 11 22 11 00 1053
1054
000000 01 39 2103
2104
00 11 16 25 00 1272
1273
000000 02 39 2322
2323
00 11 15 16 25 1146
1147
000000 03 39 2196
2197
00 11 13 00 00 1162
1163
000000 04 39 2212
2213
00 11 05 00 00 1457
1458
000000 05 39 2507
2508
00 11 07 00 00 1121
1122
000000 06 39 2171

CON 25,5(4-4)
ORIG TABLE1+0298
ALF ST2
ORIG EQUIV+0298
CON 26,5(4-4)
ORIG TABLE1+0092
ALF ST3
ORIG EQUIV+0092
CON 27,5(4-4)
ORIG TABLE1+0935
ALF ST4
ORIG EQUIV+0935
CON 28,5(4-4)
ORIG TABLE1+0729
ALF ST5
ORIG EQUIV+0729
CON 29,5(4-4)
ORIG TABLE1+0522
ALF ST6
ORIG EQUIV+0522
CON 30,5(4-4)
ORIG TABLE1+0280
ALF STX
ORIG EQUIV+0280
CON 31,5(4-4)
ORIG TABLE1+0433
ALF STJ
ORIG EQUIV+0433
CON 32,2(4-4)
ORIG TABLE1+0917
ALF STZ
ORIG EQUIV+0917
CON 33,5(4-4)
ORIG TABLE1+0458
ALF JBUS
ORIG EQUIV+0458
CON 34,0(4-4)
ORIG TABLE1+0786
ALF IOC
ORIG EQUIV+0786
CON 35,0(4-4)
ORIG TABLE1+1048
ALF IN
ORIG EQUIV+1048
CON 36,0(4-4)
ORIG TABLE1+0481
ALF OUT
ORIG EQUIV+0481
CON 37,0(4-4)
ORIG TABLE1+0867
ALF JRED
ORIG EQUIV+0867
CON 38,0(4-4)
ORIG TABLE1+0310
ALF JMP
ORIG EQUIV+0310
CON 39,0(4-4)
ORIG TABLE1+0203
ALF JSJ
ORIG EQUIV+0203
CON 39,1(4-4)
ORIG TABLE1+0422
ALF JOV
ORIG EQUIV+0422
CON 39,2(4-4)
ORIG TABLE1+0296
ALF JNOV
ORIG EQUIV+0296
CON 39,3(4-4)
ORIG TABLE1+0312
ALF JL
ORIG EQUIV+0312
CON 39,4(4-4)
ORIG TABLE1+0607
ALF JE
ORIG EQUIV+0607
CON 39,5(4-4)
ORIG TABLE1+0271
ALF JG
ORIG EQUIV+0271
CON 39,6(4-4)

2172
00 11 07 05 00 1138
1139
000000 07 39 2188
2189
00 11 15 05 00 1894
1895
000000 08 39 2944
2945
00 11 13 05 00 1180
1181
000000 09 39 2230
2231
00 11 01 15 00 1133
1134
000000 00 40 2183
2184
00 11 31 15 00 1339
1340
000000 00 41 2389
2390
00 11 32 15 00 1696
1697
000000 00 42 2746
2747
00 11 33 15 00 1003
1004
000000 00 43 2053
2054
00 11 34 15 00 1360
1361
000000 00 44 2410
2411
00 11 35 15 00 1716
1717
000000 00 45 2766
2767
00 11 36 15 00 1024
1025
000000 00 46 2074
2075
00 11 27 15 00 0962
0963
000000 00 47 2012
2013
00 11 01 29 00 1393
1394
000000 01 40 2443
2444
00 11 31 29 00 1599
1600
000000 01 41 2649
2650
00 11 32 29 00 0906
0907
000000 01 42 1956
1957
00 11 33 29 00 1263
1264
000000 01 43 2313
2314
00 11 34 29 00 1620
1621
000000 01 44 2670
2671
00 11 35 29 00 0927
0928
000000 01 45 1977
1978
00 11 36 29 00 1284
1285
000000 01 46 2334
2335
00 11 27 29 00 1222
1223
000000 01 47 2272
2273
00 11 01 17 00 1770
1771
000000 02 40 2820
2821

ORIG TABLE1+0288
ALF JGE
ORIG EQUIV+0288
CON 39,7(4-4)
ORIG TABLE1+1044
ALF JNE
ORIG EQUIV+1044
CON 39,8(4-4)
ORIG TABLE1+0330
ALF JLE
ORIG EQUIV+0330
CON 39,9(4-4)
ORIG TABLE1+0283
ALF JAN
ORIG EQUIV+0283
CON 40,0(4-4)
ORIG TABLE1+0489
ALF J1N
ORIG EQUIV+0489
CON 41,0(4-4)
ORIG TABLE1+0846
ALF J2N
ORIG EQUIV+0846
CON 42,0(4-4)
ORIG TABLE1+0153
ALF J3N
ORIG EQUIV+0153
CON 43,0(4-4)
ORIG TABLE1+0510
ALF J4N
ORIG EQUIV+0510
CON 44,0(4-4)
ORIG TABLE1+0866
ALF J5N
ORIG EQUIV+0866
CON 45,0(4-4)
ORIG TABLE1+0174
ALF J6N
ORIG EQUIV+0174
CON 46,0(4-4)
ORIG TABLE1+0112
ALF JXN
ORIG EQUIV+0112
CON 47,0(4-4)
ORIG TABLE1+0543
ALF JAZ
ORIG EQUIV+0543
CON 40,1(4-4)
ORIG TABLE1+0749
ALF J1Z
ORIG EQUIV+0749
CON 41,1(4-4)
ORIG TABLE1+0056
ALF J2Z
ORIG EQUIV+0056
CON 42,1(4-4)
ORIG TABLE1+0413
ALF J3Z
ORIG EQUIV+0413
CON 43,1(4-4)
ORIG TABLE1+0770
ALF J4Z
ORIG EQUIV+0770
CON 44,1(4-4)
ORIG TABLE1+0077
ALF J5Z
ORIG EQUIV+0077
CON 45,1(4-4)
ORIG TABLE1+0434
ALF J6Z
ORIG EQUIV+0434
CON 46,1(4-4)
ORIG TABLE1+0372
ALF JXZ
ORIG EQUIV+0372
CON 47,1(4-4)
ORIG TABLE1+0920
ALF JAP
ORIG EQUIV+0920
CON 40,2(4-4)
ORIG TABLE1+0076

00 11 31 17 00 0926
000000 02 41 0927
1976
1977
00 11 32 17 00 1282
1283
000000 02 42 2332
2333
00 11 33 17 00 1640
1641
000000 02 43 2690
2691
00 11 34 17 00 0947
0948
000000 02 44 1997
1998
00 11 35 17 00 1304
1305
000000 02 45 2354
2355
00 11 36 17 00 1661
1662
000000 02 46 2711
2712
00 11 27 17 00 1598
1599
000000 02 47 2648
2649
00 11 01 15 15 1417
1418
000000 03 40 2467
2468
00 11 31 15 15 1623
1624
000000 03 41 2673
2674
00 11 32 15 15 0930
0931
000000 03 42 1980
1981
00 11 33 15 15 1287
1288
000000 03 43 2337
2338
00 11 34 15 15 1644
1645
000000 03 44 2694
2695
00 11 35 15 15 0951
0952
000000 03 45 2001
2002
00 11 36 15 15 1307
1308
000000 03 46 2357
2358
00 11 27 15 15 1246
1247
000000 03 47 2296
2297
00 11 01 15 29 1052
1053
000000 04 40 2102
2103
00 11 31 15 29 1259
1260
000000 04 41 2309
2310
00 11 32 15 29 1614
1615
000000 04 42 2664
2665
00 11 33 15 29 0922
0923
000000 04 43 1972
1973
00 11 34 15 29 1278
1279
000000 04 44 2328
2329

ALF J1P
ORIG EQUIV+0076
CON 41,2(4-4)
ORIG TABLE1+0432
ALF J2P
ORIG EQUIV+0432
CON 42,2(4-4)
ORIG TABLE1+0790
ALF J3P
ORIG EQUIV+0790
CON 43,2(4-4)
ORIG TABLE1+0097
ALF J4P
ORIG EQUIV+0097
CON 44,2(4-4)
ORIG TABLE1+0454
ALF J5P
ORIG EQUIV+0454
CON 45,2(4-4)
ORIG TABLE1+0811
ALF J6P
ORIG EQUIV+0811
CON 46,2(4-4)
ORIG TABLE1+0748
ALF JXP
ORIG EQUIV+0748
CON 47,2(4-4)
ORIG TABLE1+0567
ALF JANN
ORIG EQUIV+0567
CON 40,3(4-4)
ORIG TABLE1+0773
ALF J1NN
ORIG EQUIV+0773
CON 41,3(4-4)
ORIG TABLE1+0080
ALF J2NN
ORIG EQUIV+0080
CON 42,3(4-4)
ORIG TABLE1+0437
ALF J3NN
ORIG EQUIV+0437
CON 43,3(4-4)
ORIG TABLE1+0794
ALF J4NN
ORIG EQUIV+0794
CON 44,3(4-4)
ORIG TABLE1+0101
ALF J5NN
ORIG EQUIV+0101
CON 45,3(4-4)
ORIG TABLE1+0457
ALF J6NN
ORIG EQUIV+0457
CON 46,3(4-4)
ORIG TABLE1+0396
ALF JXNN
ORIG EQUIV+0396
CON 47,3(4-4)
ORIG TABLE1+0202
ALF JANZ
ORIG EQUIV+0202
CON 40,4(4-4)
ORIG TABLE1+0409
ALF J1NZ
ORIG EQUIV+0409
CON 41,4(4-4)
ORIG TABLE1+0764
ALF J2NZ
ORIG EQUIV+0764
CON 42,4(4-4)
ORIG TABLE1+0072
ALF J3NZ
ORIG EQUIV+0072
CON 43,4(4-4)
ORIG TABLE1+0428
ALF J4NZ
ORIG EQUIV+0428
CON 44,4(4-4)
ORIG TABLE1+0785

00	11	35	15	29	1635
					1636
000000	04	45			2685
					2686
00	11	36	15	29	0943
					0944
000000	04	46			1993
					1994
00	11	27	15	29	0881
					0882
000000	04	47			1931
					1932
00	11	01	15	17	1665
					1666
000000	05	40			2715
					2716
00	11	31	15	17	1871
					1872
000000	05	41			2921
					2922
00	11	32	15	17	1178
					1179
000000	05	42			2228
					2229
00	11	33	15	17	1535
					1536
000000	05	43			2585
					2586
00	11	34	15	17	1892
					1893
000000	05	44			2942
					2943
00	11	35	15	17	1199
					1200
000000	05	45			2249
					2250
00	11	36	15	17	1556
					1557
000000	05	46			2606
					2607
00	11	27	15	17	1494
					1495
000000	05	47			2544
					2545
00	09	15	03	01	0878
					0879
000000	00	48			1928
					1929
00	04	05	03	01	1567
					1568
000000	01	48			2617
					2618
00	05	15	23	01	0996
					0997
000000	02	48			2046
					2047
00	05	15	15	01	1597
					1598
000000	03	48			2647
					2648
00	09	15	03	31	1447
					1448
000000	00	49			2497
					2498
00	04	05	03	31	1085
					1086
000000	01	49			2135
					2136
00	05	15	23	31	1564
					1565
000000	02	49			2614
					2615
00	05	15	15	31	1116
					1117
000000	03	49			2166
					2167
00	09	15	03	32	1045
					1046
000000	00	50			2095
					2096
00	04	05	03	32	1734

ALF	J5NZ
ORIG	EQUIV+0785
CON	45,4(4=4)
ORIG	TABLE1+0093
ALF	J6NZ
ORIG	EQUIV+0093
CON	46,4(4=4)
ORIG	TABLE1+0031
ALF	JXNZ
ORIG	EQUIV+0031
CON	47,4(4=4)
ORIG	TABLE1+0815
ALF	JANP
ORIG	EQUIV+0815
CON	40,5(4=4)
ORIG	TABLE1+1021
ALF	J1NP
ORIG	EQUIV+1021
CON	41,5(4=4)
ORIG	TABLE1+0328
ALF	J2NP
ORIG	EQUIV+0328
CON	42,5(4=4)
ORIG	TABLE1+0685
ALF	J3NP
ORIG	EQUIV+0685
CON	43,5(4=4)
ORIG	TABLE1+1042
ALF	J4NP
ORIG	EQUIV+1042
CON	44,5(4=4)
ORIG	TABLE1+0349
ALF	J5NP
ORIG	EQUIV+0349
CON	45,5(4=4)
ORIG	TABLE1+0706
ALF	J6NP
ORIG	EQUIV+0706
CON	46,5(4=4)
ORIG	TABLE1+0644
ALF	JXNP
ORIG	EQUIV+0644
CON	47,5(4=4)
ORIG	TABLE1+0028
ALF	INCA
ORIG	EQUIV+0028
CON	48,0(4=4)
ORIG	TABLE1+0717
ALF	DECA
ORIG	EQUIV+0717
CON	48,1(4=4)
ORIG	TABLE1+0146
ALF	ENTA
ORIG	EQUIV+0146
CON	48,2(4=4)
ORIG	TABLE1+0747
ALF	ENNA
ORIG	EQUIV+0747
CON	48,3(4=4)
ORIG	TABLE1+0597
ALF	INC1
ORIG	EQUIV+0597
CON	49,0(4=4)
ORIG	TABLE1+0235
ALF	DEC1
ORIG	EQUIV+0235
CON	49,1(4=4)
ORIG	TABLE1+0714
ALF	ENT1
ORIG	EQUIV+0714
CON	49,2(4=4)
ORIG	TABLE1+0266
ALF	ENN1
ORIG	EQUIV+0266
CON	49,3(4=4)
ORIG	TABLE1+0195
ALF	INC2
ORIG	EQUIV+0195
CON	50,0(4=4)
ORIG	TABLE1+0884
ALF	DEC2

000000 01 50 1735
2784
00 05 15 23 32 2785
1163
000000 02 50 1164
2213
00 05 15 15 32 2214
1764
000000 03 50 1765
2814
00 09 15 03 33 2815
1694
000000 00 51 1695
2744
00 04 05 03 33 2745
1333
000000 01 51 1334
2383
00 05 15 23 33 2384
1812
000000 02 51 1813
2862
00 05 15 15 33 2863
1363
000000 03 51 1364
2413
00 09 15 03 34 2414
1293
000000 00 52 1294
2343
00 04 05 03 34 2344
0932
000000 01 52 0933
1982
00 05 15 23 34 1983
1411
000000 02 52 1412
2461
00 05 15 15 34 2462
0961
000000 03 52 0962
2011
00 09 15 03 35 2012
0892
000000 00 53 0893
1942
00 04 05 03 35 1943
1581
000000 01 53 1582
2631
00 05 15 23 35 2632
1010
000000 02 53 1011
2060
00 05 15 15 35 2061
1611
000000 03 53 1612
2661
00 09 15 03 36 2662
1541
000000 00 54 1542
2591
00 04 05 03 36 2592
1179
000000 01 54 1180
2229
00 05 15 23 36 2230
1659
000000 02 54 1660
2709
00 05 15 15 36 2710
1210
000000 03 54 1211
2260
00 09 15 03 27 2261
0950
000000 00 55 0951
2000
00 04 05 03 27 2001
1639
1640

ORIG EQUIV+0884
CON 50,1(4-4)
ORIG TABLE1+0313
ALF ENT2
ORIG EQUIV+0313
CON 50,2(4-4)
ORIG TABLE1+0914
ALF ENN2
ORIG EQUIV+0914
CON 50,3(4-4)
ORIG TABLE1+0844
ALF INC3
ORIG EQUIV+0844
CON 51,0(4-4)
ORIG TABLE1+0483
ALF DEC3
ORIG EQUIV+0483
CON 51,1(4-4)
ORIG TABLE1+0962
ALF ENT3
ORIG EQUIV+0962
CON 51,2(4-4)
ORIG TABLE1+0513
ALF ENN3
ORIG EQUIV+0513
CON 51,3(4-4)
ORIG TABLE1+0443
ALF INC4
ORIG EQUIV+0443
CON 52,0(4-4)
ORIG TABLE1+0082
ALF DEC4
ORIG EQUIV+0082
CON 52,1(4-4)
ORIG TABLE1+0561
ALF ENT4
ORIG EQUIV+0561
CON 52,2(4-4)
ORIG TABLE1+0111
ALF ENN4
ORIG EQUIV+0111
CON 52,3(4-4)
ORIG TABLE1+0042
ALF INC5
ORIG EQUIV+0042
CON 53,0(4-4)
ORIG TABLE1+0731
ALF DEC5
ORIG EQUIV+0731
CON 53,1(4-4)
ORIG TABLE1+0160
ALF ENT5
ORIG EQUIV+0160
CON 53,2(4-4)
ORIG TABLE1+0761
ALF ENN5
ORIG EQUIV+0761
CON 53,3(4-4)
ORIG TABLE1+0691
ALF INC6
ORIG EQUIV+0691
CON 54,0(4-4)
ORIG TABLE1+0329
ALF DEC6
ORIG EQUIV+0329
CON 54,1(4-4)
ORIG TABLE1+0809
ALF ENT6
ORIG EQUIV+0809
CON 54,2(4-4)
ORIG TABLE1+0360
ALF ENN6
ORIG EQUIV+0360
CON 54,3(4-4)
ORIG TABLE1+0100
ALF INCX
ORIG EQUIV+0100
CON 55,0(4-4)
ORIG TABLE1+0789
ALF DECX
ORIG EQUIV+0789

```

000000 01 55 2689
00 05 15 23 27 2690
000000 02 55 2118
00 05 15 15 27 2119
000000 03 55 1670
00 03 14 17 01 1671
000000 05 56 2720
00 03 14 17 31 2721
000000 05 56 1901
00 03 14 17 31 1902
000000 05 57 1419
00 03 14 17 32 1420
000000 05 58 2469
00 03 14 17 32 2470
000000 05 58 1018
00 03 14 17 33 1019
000000 05 59 2068
00 03 14 17 33 2069
000000 05 59 1667
00 03 14 17 34 1668
000000 05 60 2717
00 03 14 17 34 2718
000000 05 60 1266
00 03 14 17 35 1267
000000 05 61 2316
00 03 14 17 35 2317
000000 05 61 0865
00 03 14 17 36 0866
000000 05 62 1915
00 03 14 17 36 1916
000000 05 62 1514
00 03 14 17 27 1515
000000 05 63 2564
00 03 14 17 27 2565
000000 05 63 0923
00 03 14 17 27 0924
000000 05 63 1973
00 16 19 09 07 1974
000000 00 02 1730
00 05 18 24 00 1731
000000 00 03 2780
00 03 16 15 00 2781
000000 00 04 1211
00 03 16 15 00 1212
000000 00 04 2261
00 01 13 06 00 2262
000000 00 05 1329
00 05 15 04 00 1330
000000 00 06 2379
00 05 15 04 00 2380
000000 00 07 1089
00 05 15 04 00 1090
000000 00 08 2139
00 05 15 04 00 2140
000000 00 09 1119
00 05 15 04 00 1120
000000 00 10 2169
00 05 15 04 00 2170
000000 00 11 0213
00 05 15 04 00 0213
000000 00 12 0213
00 05 15 04 00 0213
000000 00 13 0213
00 05 15 04 00 0213
000000 00 14 0213
00 05 15 04 00 0213
000000 00 15 0213
00 05 15 04 00 0213
000000 00 16 0213
00 05 15 04 00 0213
000000 00 17 0213
00 05 15 04 00 0213
000000 00 18 0213
00 05 15 04 00 0213
000000 00 19 0213
00 05 15 04 00 0213
000000 00 20 0213
00 05 15 04 00 0213
000000 00 21 0213
00 05 15 04 00 0213
000000 00 22 0213
00 05 15 04 00 0213
000000 00 23 0213
00 05 15 04 00 0213
000000 00 24 0213
00 05 15 04 00 0213
000000 00 25 0213
00 05 15 04 00 0213
000000 00 26 0213
00 05 15 04 00 0213
000000 00 27 0213
00 05 15 04 00 0213
000000 00 28 0213
00 05 15 04 00 0213
000000 00 29 0213
00 05 15 04 00 0213
000000 00 30 0213
00 05 15 04 00 0213
000000 00 31 0213
00 05 15 04 00 0213
000000 00 32 0213
00 05 15 04 00 0213
000000 00 33 0213
00 05 15 04 00 0213
000000 00 34 0213
00 05 15 04 00 0213
000000 00 35 0213
00 05 15 04 00 0213
000000 00 36 0213
00 05 15 04 00 0213
000000 00 37 0213
00 05 15 04 00 0213
000000 00 38 0213
00 05 15 04 00 0213
000000 00 39 0213
00 05 15 04 00 0213
000000 00 40 0213
00 05 15 04 00 0213
000000 00 41 0213
00 05 15 04 00 0213
000000 00 42 0213
00 05 15 04 00 0213
000000 00 43 0213
00 05 15 04 00 0213
000000 00 44 0213
00 05 15 04 00 0213
000000 00 45 0213
00 05 15 04 00 0213
000000 00 46 0213
00 05 15 04 00 0213
000000 00 47 0213
00 05 15 04 00 0213
000000 00 48 0213
00 05 15 04 00 0213
000000 00 49 0213
00 05 15 04 00 0213
000000 00 50 0213
00 05 15 04 00 0213
000000 00 51 0213
00 05 15 04 00 0213
000000 00 52 0213
00 05 15 04 00 0213
000000 00 53 0213
00 05 15 04 00 0213
000000 00 54 0213
00 05 15 04 00 0213
000000 00 55 0213
00 05 15 04 00 0213
000000 00 56 0213
00 05 15 04 00 0213
000000 00 57 0213
00 05 15 04 00 0213
000000 00 58 0213
00 05 15 04 00 0213
000000 00 59 0213
00 05 15 04 00 0213
000000 00 60 0213
00 05 15 04 00 0213
000000 00 61 0213
00 05 15 04 00 0213
000000 00 62 0213
00 05 15 04 00 0213
000000 00 63 0213
00 05 15 04 00 0213
000000 00 64 0213
00 05 15 04 00 0213
000000 00 65 0213
00 05 15 04 00 0213
000000 00 66 0213
00 05 15 04 00 0213
000000 00 67 0213
00 05 15 04 00 0213
000000 00 68 0213
00 05 15 04 00 0213
000000 00 69 0213
00 05 15 04 00 0213
000000 00 70 0213
00 05 15 04 00 0213
000000 00 71 0213
00 05 15 04 00 0213
000000 00 72 0213
00 05 15 04 00 0213
000000 00 73 0213
00 05 15 04 00 0213
000000 00 74 0213
00 05 15 04 00 0213
000000 00 75 0213
00 05 15 04 00 0213
000000 00 76 0213
00 05 15 04 00 0213
000000 00 77 0213
00 05 15 04 00 0213
000000 00 78 0213
00 05 15 04 00 0213
000000 00 79 0213
00 05 15 04 00 0213
000000 00 80 0213
00 05 15 04 00 0213
000000 00 81 0213
00 05 15 04 00 0213
000000 00 82 0213
00 05 15 04 00 0213
000000 00 83 0213
00 05 15 04 00 0213
000000 00 84 0213
00 05 15 04 00 0213
000000 00 85 0213
00 05 15 04 00 0213
000000 00 86 0213
00 05 15 04 00 0213
000000 00 87 0213
00 05 15 04 00 0213
000000 00 88 0213
00 05 15 04 00 0213
000000 00 89 0213
00 05 15 04 00 0213
000000 00 90 0213
00 05 15 04 00 0213
000000 00 91 0213
00 05 15 04 00 0213
000000 00 92 0213
00 05 15 04 00 0213
000000 00 93 0213
00 05 15 04 00 0213
000000 00 94 0213
00 05 15 04 00 0213
000000 00 95 0213
00 05 15 04 00 0213
000000 00 96 0213
00 05 15 04 00 0213
000000 00 97 0213
00 05 15 04 00 0213
000000 00 98 0213
00 05 15 04 00 0213
000000 00 99 0213
00 05 15 04 00 0213
000000 00 100 0213
00 05 15 04 00 0213

```

```

CON 55,1(4-4)
ORIG TABLE1+0218
ALF ENTX
ORIG EQUIV+0218
CON 55,2(4-4)
ORIG TABLE1+0820
ALF ENNX
ORIG EQUIV+0820
CON 55,3(4-4)
ORIG TABLE1+0001
ALF CMPA
ORIG EQUIV+0001
CON 56,5(4-4)
ORIG TABLE1+0569
ALF CMP1
ORIG EQUIV+0569
CON 57,5(4-4)
ORIG TABLE1+0168
ALF CMP2
ORIG EQUIV+0168
CON 58,5(4-4)
ORIG TABLE1+0817
ALF CMP3
ORIG EQUIV+0817
CON 59,5(4-4)
ORIG TABLE1+0416
ALF CMP4
ORIG EQUIV+0416
CON 60,5(4-4)
ORIG TABLE1+0015
ALF CMP5
ORIG EQUIV+0015
CON 61,5(4-4)
ORIG TABLE1+0664
ALF CMP6
ORIG EQUIV+0664
CON 62,5(4-4)
ORIG TABLE1+0073
ALF CMPX
ORIG EQUIV+0073
CON 63,5(4-4)
ORIG TABLE1+0880
ALF ORIG
ORIG EQUIV+0880
CON -2,0(4-4)
ORIG TABLE1+0361
ALF EQU
ORIG EQUIV+0361
CON -3,0(4-4)
ORIG TABLE1+0479
ALF CON
ORIG EQUIV+0479
CON -4,0(4-4)
ORIG TABLE1+0239
ALF ALF
ORIG EQUIV+0239
CON -5,0(4-4)
ORIG TABLE1+0269
ALF END
ORIG EQUIV+0269
CON -6,0(4-4)
ORIG OB

*
* SUBROUTINES
*
* INSTOUT TAPE OUTPUT SUBROUTINES
1H
STJ 9F
JBUS *(TAPE)
LD6 PT1
CMPX MAXLOC
JGE 1F
CMPX EASYLOC
JE 2F
JMP SETN
STX BASELOC
STX TBUF,6(0-4)
INCX BYTESIZE
STX MAXLOC
DECX BYTESIZE
ST6 BASEINDEX
INC6 1

```

0001	00	00	55	0228	0219	2H	INCX	1	
/- 0218	00	05	31	0229			STX	EASYLOC	
/- 0001	00	05	08	0230			LDA	INST	
0000	06	05	24	0231			STA	TBUF,6	
/- 0001	00	00	54	0232			INC6	1	
/- 0001	00	05	13	0233			LD5	PT2	
/- 0001	00	00	39	0234			JMP	3F	
/ 0213	00	02	32	0235		FIXUP	STJ	9F	
/ 0236	00	01	34	0236			JBUS	*(TAPE)	
/ 0233	00	05	13	0237			LD5	PT2	
0001	05	05	24	0238			STA	TBUF+1,5	
0001	00	01	53	0239			DEC5	1	
/ 0215	00	05	14	0240			LD6	PT1	
/ 0237	00	05	62	0241	0234	3H	CMP6	PT2	
/- 0001	00	04	39	0242		SWITCH	JL	4F	
/ 0220	00	00	39	0243			JMP	SETN	
0001	05	05	33	0244			STZ	TBUF+1,5	
0000	06	05	33	0245			STZ	TBUF,6	
0097	00	02	53	0246		8H	ENT5	97	
0098	00	05	16	0247			LDAN	TBUF+98	
0000	05	05	02	0248			SUB	TBUF,5	
0001	00	01	53	0249			DEC5	1	
0248	00	03	45	0250			J5NN	*-2	
0099	00	05	24	0251			STA	TBUF+99	
0000	00	01	37	0252			OUT	TBUF(TAPE)	
/ 0229	00	05	29	0253			ST5	EASYLOC	
0097	00	02	53	0254			ENT5	97	
0000	00	02	54	0255			ENT6	0	
/ 0240	00	05	30	0256	0242	4H	ST6	PT1	
/ 0241	00	05	29	0257			ST5	PT2	
0258	00	00	39	0258	0235	9H	JMP	*	
/- 0001	00	02	32	0259	0243	SETN	STJ	1F	
/ 0253	00	05	08	0260			LDA	EASYLOC	
/ 0259	00	00	40	0261			JAN	1F	
/ 0221	00	05	02	0262			SUB	BASELOC	
/ 0226	00	05	09	0263			LD1	BASEINDEX	
0000	01	45	24	0264			STA	TBUF,1(5-5)	
0265	00	00	39	0265	0261	1H	JMP	*	
- 0000000000	00	00	01	0266	0260	EASYLOC	CON	-1	
0000000004	00	00	44	0267	0256	PT1	CON	44	
0000000004	00	00	44	0268	0257	PT2	CON	44	
				0269		* CARD AND PRINTER SUBROUTINES			
/- 0001	00	02	32	0269		PRINTOUT	STJ	1F	
/- 0001	00	05	09	0270			LD1	PBUF	
0000	01	18	37	0271			OUT	0,1(PRINTER)	
/ 0024	01	05	09	0272			LD1	24,1	
/ 0270	00	05	25	0273			ST1	PBUF	
- 0001	01	24	07	0274			MOVE	-1,1(24)	
/- 0001	00	05	08	0275			LDA	LCTR	
0000	00	01	05	0276			CHAR		
- 0020	01	21	31	0277			STX	-20,1(2-5)	
0278	00	00	39	0278	0269	1H	JMP	*	
0000000001	00	00	101	0279	0273	PBUF	CON	PBUF1	
/- 0001	00	02	32	0280		READIN	STJ	1F	
/- 0001	00	05	09	0281			LD1	RBUF	
0000	01	16	36	0282			IN	0,1(READER)	
/ 0016	01	05	10	0283			LD2	16,1	
/ 0281	00	05	26	0284			ST2	RBUF	
0279	00	05	09	0285			LD1	PBUF	
0007	00	00	49	0286			INC1	7	
0000	02	16	07	0287			MOVE	0,2(16)	
0288	00	00	39	0288	0280	1H	JMP	*	
0000000001	00	00	152	0289	0284	RBUF	CON	RBUF1	
/- 0001	00	02	32	0290		ERROR	STJ	1F	
0279	00	05	10	0291			LD2	PBUF	
0000	02	11	15	0292			LDX	0,2(1-3)	
0000	02	20	31	0293			STX	0,2(2-4)	
0000	02	09	24	0294			STA	0,2(1-1)	
/- 0001	00	05	08	0295			LDA	ERRCOUNT	
0001	00	00	48	0296			INCA	1	
/ 0295	00	05	24	0297			STA	ERRCOUNT	
0298	00	00	39	0298	0290	1H	JMP	*	
/- 0001	00	02	32	0299		EDIT	STJ	9F	
0279	00	05	09	0300			LD1	PBUF	
/- 0001	00	05	08	0301			LDA	UNDFLAG	
0305	00	01	40	0302			JAZ	*+3	
0047	00	02	48	0303			ENTA	47	
0000	01	45	24	0304			STA	0,1(5-5)	
/ 0230	00	05	15	0305			LDX	INST	
0310	00	03	47	0306			JXNN	*+4	
0045	00	02	48	0307			ENTA	45	

JOB *+1

```

0001 01 09 24 0308
/ 0305 00 13 15 0309
0005 00 02 53 0310
0001 01 02 54 0311
0005 00 03 52 0312
0005 00 02 51 0313
0000 00 00 48 0314
0001 00 00 06 0315
0001 00 00 52 0316
0002 00 01 51 0317
0001 00 01 53 0318
0192 00 04 09 0319
0315 00 01 41 0320
0000 00 01 05 0321
/- 0001 00 03 43 0322
/- 0001 00 05 31 0323
0005 00 03 06 0324
0005 00 00 51 0325
/- 0001 00 00 39 0326
0000 00 02 51 0327
/ 0323 00 05 15 0328
/ 0326 00 00 39 0329 0322
/ 0309 00 13 15 0330
0005 04 02 06 0331
0313 00 04 44 0332
0333 00 00 39 0333 0299
/- 0001 00 02 32 0334 0329
0339 00 02 45 0335
0001 00 00 54 0336
0005 00 00 53 0337
0336 00 05 45 0338
0000 03 02 06 0339
0000 00 02 48 0340
0000 05 02 06 0341
0000 06 05 01 0342
0000 06 05 24 0343
0346 00 01 47 0344
0001 06 05 31 0345
0005 03 00 53 0346
0347 00 00 39 0347 0334

```

```

STA 1,1(1-1)
LDX INST(1-5)
ENT5 5
ENT6 1,1
ENN4 5,1
ENT3 5
SLAX 0
INC4 1
DEC3 2
DEC5 1
LD1 BOUND+5,4
J1Z 2B
CHAR
J3NN 3F
STX TEMP
SRAX 5
INC3 5
JMP EDIT1
ENT3 0
LDX TEMP
JMP EDIT1
LDX INST(1-5)
SLAX 5,4
J4NZ 1B
JMP *
STJ 1F
J5P **4
INC6 1
INC5 5
J5NP *-2
SLAX 0,3
ENTA 0
SLAX 0,5
ADD 0,6
STA 0,6
JXZ **2
STX 1,6
INC5 =5,3
JMP *
SYMBOL TABLE SUBROUTINE
SERCH STJ 9F
STA TEMP
STX TEMPX
ADD TEMPX
MUL PHI
SLAX 5
MUL =SIZE=
STA TEMP
LD2 TEMP
ENT3 1
LDX TEMPX
LDA TABLE1,2
CMPA TEMPX(1-5)
JNE 2F
CMPX TABLE2,2
JNE 3F
LDX EQUIV,2
JAN 8F
JMP 9F
JAZ 4F
DEC2 1
J2NN 1B
DEC3 1
ENT2 SIZE-1
J3Z 1B
ENTA 22
JMP ERROR
JMP FINISHLOC
LDAN TEMPX
STA TABLE1,2
STX TABLE2,2
ENNX 1
LDA LCTR
STA EQUIV,2
ENT1 1
JMP *
CON 618033989//100000000
* SCANNING SUBROUTINES
ADDR LD6 RBUF
INC6 3

```

```

00004 00 03 53 0387
/- 00001 00 02 32 0388
/- 03001 00 00 33 0389
/- 00001 00 05 33 0390
/- 00001 00 00 33 0391
/- 00001 00 05 33 0392
/- 00001 00 00 33 0393
00005 00 02 48 0394
/- 00001 00 00 24 0395
00000 00 02 49 0396
00000 00 02 50 0397
00005 00 02 51 0398
00000 00 02 52 0399
00000 06 05 15 0400
00005 05 02 06 0401
00000 00 02 48 0402
04007 00 00 45 0403
00001 00 00 54 0404
00000 06 05 15 0405
00005 00 03 53 0406
00001 00 00 53 0407
/- 00001 00 00 44 0408
/- 00001 00 09 63 0409
/- 00001 00 04 39 0410
/- 00001 00 09 63 0411
/- 00001 00 04 39 0412
/- 00001 00 09 63 0413
/- 00001 00 03 39 0414
/ 0410 00 02 44 0415
/ 0408 00 04 40 0416
/- 00001 00 09 63 0417
00001 00 03 52 0418
0422 00 05 39 0419
/- 00001 00 05 31 0420
/- 00001 00 00 39 0421
0425 00 12 31 0422
0425 00 05 15 0423
0403 00 00 39 0424
00000 00 00 00 0425
0418 00 02 44 0426 0414
00001 00 02 52 0427
/- 00001 00 09 63 0428 0415
0416 00 05 39 0429
00001 00 02 50 0430
00001 00 02 06 0431 0412
00001 00 01 51 0432
0403 00 04 43 0433
/ 0356 00 05 24 0434
/ 0403 00 00 39 0435
/ 0420 00 05 31 0436 0416
00000 00 02 55 0437
/- 00001 00 00 43 0438
00000 03 02 06 0439
/- 00001 00 04 44 0440
/- 00001 00 01 42 0441
/ 0434 00 05 24 0442
/ 0442 00 09 11 0443
0030 00 01 51 0444
/- 00001 00 00 43 0445
/- 00001 00 21 56 0446
/- 00001 00 05 39 0447
/- 00001 00 21 56 0448
/ 0445 00 08 39 0449
0203 03 05 08 0450
/- 00001 00 00 39 0451
/ 30 06 00 00 0452 0446
/ 30 02 00 00 0453 0448
/ 0449 00 04 40 0454 0440
/ 0380 00 05 08 0455
/ 0451 00 00 39 0456
/- 00001 00 05 59 0457 0438
0461 00 07 39 0458
0013 00 02 48 0459
/- 00001 00 00 39 0460
0010 03 04 06 0461
/ 0443 00 05 08 0462
/ 0441 00 01 42 0463
/ 0348 00 00 39 0464 0454
/ 0462 00 05 31 0465
/ 0465 00 05 08 0466
/ 0456 00 00 39 0467

```

```

ADDR1
INIT
LEXSCAN
2H
4H
5H
3H
1H
7H
8H
6H
9H
2H
1H
3H
5H
FNN5 4
STJ ADDREX1
STZ UNDFLAG
STZ UNDOOP
STZ PAREN
STZ OP
STZ ACCUM
ENTA 5
STA FIELD
ENT1 0
ENT2 0
ENT3 5
ENT4 0
LDX 0,6
SLAX 5,5
ENTA 0
J5N ++4
INC6 1
LDX 0,6
FNN5 5
INC5 1
J4N 8F
CMPX =30(1-1)=(1-1)
JL 1F
CMPX =40(1-1)=(1-1)
JL 7F
CMPX =48(1-1)=(1-1)
JE 3F
J4P 1F
JANZ 8F
CMPX =46(1-1)=(1-1)
FNN4 1
JE ++3
STX NEXTCHAR
JMP NOOPERAND
STX ++3(1-4)
LDX ++2
JMP 2B
CON 0
J4P 5B
ENT4 1
CMPX =0=(1-1)
JE 4B
ENT2 1
SLAX 1
DEC3 1
J3NZ 2B
STA TEMP
JMP 2B
ENTX 0
J3N 1F
SLAX 0,3
J4NZ 2F
J2Z 7F
STA TEMP
LD3 TEMP(1-1)
DEC3 30
J3N 5F
CMPA 6F(2-5)
JE 4F
CMPA 9F(2-5)
JNE 5F
LDA BTABLE,3
JMP OPERAND
ALF 0F
ALF 0B
JANZ 5F
LDA LCTR
JMP OPERAND
CMP3 =-5=
JGE ++3
ENTA 13
JMP ADDRERROR
SLC 10,3
LDA TEMP
J2Z 7F
JMP SERCH
STX TEMP
LDA TEMP
JMP OPERAND

```


0005	03	03	06	0468	0463	7H	SRAX	5,3
/	0000	00	00	05	0469		NUM	
/	0467	00	00	39	0470		JMP	OPERAND
/	0193	03	05	08	0471	0447	LDA	FTABLE,3
/	0455	00	05	15	0472		LDX	LCTR
/	0193	03	05	31	0473		STX	FTABLE,3
/	0001	00	02	49	0474		ENT1	1
/	0470	00	00	39	0475		JMP	OPERAND
/	0392	00	05	10	0476	0421	LD2	OP
/-	0001	02	03	42	0477		J2NN	1F,2
/	0001	00	02	48	0478		ENTA	1
/	0290	00	00	39	0479	0460	JMP	ERROR
/	0390	00	05	08	0480		LDA	UNDOP
/	0330	00	02	24	0481		STA	INST(0-2)
/-	0001	00	00	39	0482		JMP	ADDREX
/-	0001	00	00	39	0483	0477	JMP	EXAMINE
/-	0001	00	00	39	0484		JMP	RPREN
/-	0001	00	09	63	0485		CMPX	1F(1-1)
/	0478	00	08	39	0486		JNE	MISOPERAND
/	0000	00	02	49	0487		ENT1	0
/-	0001	00	00	39	0488		JMP	SETOP
/	47	00	00	00	0489	0485	ALF	/
/-	0001	00	05	24	0490	0475	STA	VALUE
/	0476	00	05	10	0491		LD2	OP
/-	0001	00	01	41	0492		J1Z	1F
/	0480	00	05	24	0493		STA	UNDOP
/-	0001	00	01	42	0494		J2Z	LOAD1
/	0024	00	02	48	0495		ENTA	24
/	0479	00	00	39	0496		JMP	ADDRERROR
/-	0001	02	00	39	0497	0492	JMP	1F,2
/-	0001	00	00	39	0498		JMP	LPREN
/-	0001	00	00	39	0499		JMP	COMMA
/-	0001	00	00	39	0500		JMP	FDIV
/-	0001	00	00	39	0501		JMP	MUL
/-	0001	00	00	39	0502		JMP	MINUS
/-	0001	00	00	39	0503		JMP	ADD
/-	0001	00	00	39	0504	0497	JMP	LOAD
/-	0001	00	00	39	0505		JMP	EXTOPERAND
/	0393	00	05	08	0506		LDA	ACCUM
/	0000	00	02	55	0507		ENTX	0
/-	0001	00	00	39	0508		JMP	1F
/	0391	00	05	10	0509	0502	LD2	PAREN
/-	0001	00	04	42	0510		J2NZ	DASH
/	0506	00	05	08	0511		LDA	ACCUM
/	0490	00	05	02	0512		SUB	VALUE
/-	0001	00	00	39	0513		JMP	2F
/	0511	00	05	03	0514	0501	MUL	ACCUM
/	0005	00	02	06	0515		SLAX	5
/	0513	00	00	39	0516		JMP	2F
/	0514	00	05	08	0517	0500	LDA	ACCUM
/	0005	00	03	06	0518		SRAX	5
/	0512	00	05	04	0519	0508	DIV	VALUE
/	0516	00	00	39	0520		JMP	2F
/	0517	00	05	01	0521	0503	ADD	ACCUM
/	0389	00	05	09	0522	0520	LD1	UNDFLAG
/	0504	00	01	41	0523		J1Z	LOAD
/	0495	00	00	39	0524		JMP	FREFERROR
/-	0522	00	05	25	0525	0494	ST1	UNDFLAG
/	0001	00	05	09	0526		LD1	CONFLAG
/	0523	00	00	39	0527		JMP	3B
/	0001	00	02	55	0528	0498	ENTX	1
/	0509	00	05	31	0529		STX	PAREN
/	0395	00	05	24	0530		STA	FFIELD
/	0483	00	00	39	0531		JMP	EXAMINE
/	0530	00	05	08	0532	0510	LDA	FFIELD
/-	0001	00	05	03	0533		MUL	=8=
/	0005	00	02	06	0534		SLAX	5
/	0519	00	05	01	0535		ADD	VALUE
/	0530	00	00	39	0536		JMP	2B
/	0529	00	05	33	0537	0484	STZ	PAREN
/	0526	00	05	10	0538		LD2	CONFLAG
/	0531	00	04	42	0539		J2NZ	EXAMINE
/	0532	00	05	08	0540		LDA	FFIELD
/	0481	00	36	24	0541		STA	INST(4-4)
/	0539	00	00	39	0542		JMP	EXAMINE
/	0541	00	27	24	0543	0499	STA	INST(3-3)
/	0542	00	00	39	0544		JMP	EXAMINE
/	0521	00	05	24	0545	0523	STA	ACCUM
/	0544	00	03	39	0546		JNOV	EXAMINE
/	0025	00	02	48	0547		ENTA	25
/	0479	00	00	39	0548		JMP	ADDRERROR

```

/ 0436 00 09 09 0549 0546 EXAMINE LD1 NEXTCHAR(1-1)
/- 0001 00 01 41 0550 J1Z BLANK
0040 00 01 49 0551 DEC1 40
0555 00 03 41 0552 J1NN *+3
0014 00 02 48 0553 0505 EXTOPERAND ENTA 14
0479 00 00 39 0554 JMP ADDRERROR
0008 00 01 49 0555 DEC1 8
/ 0488 00 00 41 0556 CHARERROR J1N SETOP
0003 00 02 48 0557 ENTA 3
0479 00 00 39 0558 JMP ADDRERROR
/- 0001 01 01 08 0559 0556 SETOP LDA CHARTABLE,1(0-1)
/ 0491 00 05 24 0560 STA OP
/ 0559 01 19 09 0561 LD1 CHARTABLE,1(2-3)
/ 0000 01 00 39 0562 JMP 0,1
/ 0538 00 05 09 0563 COMMA1 LD1 CONFLAG
0396 00 01 41 0564 J1Z LEXSCAN
/- 0001 00 00 39 0565 JMP INSERT
00 05 57 00 00 0566 CON CHARERROR(2-3)
-05 05 63 00 00 0567 CON =5(0-1),COMMA1(2-3)
-06 03 96 00 00 0568 CON =6(0-1),LEXSCAN(2-3)
-01 03 96 00 00 0569 CON +1(0-1),LEXSCAN(2-3)
-01 03 96 00 00 0570 CON =1(0-1),LEXSCAN(2-3)
-02 03 96 00 00 0571 CON =2(0-1),LEXSCAN(2-3)
-03 03 96 00 00 0572 CON =3(0-1),LEXSCAN(2-3)
-02 03 96 00 00 0573 CON =4(0-1),LEXSCAN(2-3)
-04 03 96 00 00 0574 0561 CHARTABLE CON =4(0-1),LEXSCAN(2-3)
/ 0563 00 05 09 0575 0550 BLANK LD1 CONFLAG
/ 0565 00 04 41 0576 J1NZ INSERT
/ 0545 00 05 08 0577 LDA ACCUM
/ 0543 00 02 24 0578 STA INST(0-2)
/ 0578 00 05 08 0579 LD1 INST
0580 00 00 39 0580 0482 ADDREX JMP *
0000 00 02 48 0581 0388 ADDREX1 ENTA 0
/ 0540 00 05 15 0582 0576 INSERT LDX FFIELD
/- 0001 00 03 31 0583 STX 3F(4-4)
/ 0533 00 05 04 0584 DIV =8=
/- 0001 00 05 24 0585 STA L
/- 0001 00 05 31 0586 STX R
/- 0001 00 05 63 0587 CMPX =5=
/ 0591 00 06 39 0588 JG *+3
/ 0585 00 05 63 0589 CMPX L
0593 00 07 39 0590 JGF *+3
0006 00 02 48 0591 ENTA 6
/ 0479 00 00 39 0592 JMP ADDRERROR
/ 0586 00 05 09 0593 LD1 R
0001 00 02 48 0594 ENTA 1
0187 00 01 24 0595 STA BOUND,1
0598 00 00 39 0596 JMP *+2
0187 00 01 33 0597 STZ BOUND,1
/ 0001 00 01 49 0598 DEC1 1
/ 0589 00 05 57 0599 CMP1 L
0597 00 07 39 0600 JGE *-3
/ 0187 00 01 24 0601 STA BOUND,1
/ 0577 00 05 08 0602 LDA ACCUM
/ 0579 00 00 24 0603 0583 3H STA INST(0)
/ 0549 00 09 09 0604 LD1 NEXTCHAR(1-1)
0579 00 01 41 0605 J1Z ADDREX
0392 00 00 39 0606 JMP INIT
0607
*
* BEGINNING OF ASSEMBLY
*
0000 00 01 35 0607 3999 BEGIN IOC 0(TAPE)
0169 00 16 36 0608 IN RBUF2(READER)
0000 00 18 35 0609 IOC 0(PRINTER)
0235 00 00 39 0610 JMP FIXUP
0009 00 02 49 0611 ENTA 9
0001 00 03 48 0612 ENNA 1
0193 01 05 24 0613 STA FTABLE,1
0001 00 01 49 0614 DEC1 1
0613 00 03 41 0615 J1NN *-2
1049 00 02 49 0616 ENTA SIZE-1
2950 01 05 33 0617 STZ TABLE2,1
0001 00 01 49 0618 DEC1 1
0617 00 03 41 0619 J1NN *-2
0620
*
* MAIN ASSEMBLY PROCESS
*
0269 00 00 39 0620 FINLINE JMP PRINTOUT
0280 00 00 39 0621 READCARD JMP READIN
0000 02 09 08 0622 LDA 0,2(1-1)
0046 00 01 48 0623 DECA 46

```

0620	00	01	40	0624		JAZ	FINLINE
0002	02	21	08	0625		LDA	2,2(2-5)
0620	00	01	40	0626		JAZ	FINLINE
/- 0001	00	05	33	0627	PROCESSLOC	STZ	FIX1
0000	02	05	08	0628		LDA	0,2
/- 0001	00	01	40	0629		JAZ	PROCESSOP
/- 0001	00	21	56	0630		CMPA	1F(2-5)
/- 0001	00	05	39	0631		JE	2F
0001	02	05	15	0632	3H	LDX	1,2
0000	00	02	49	0633		ENT1	0
0348	00	00	39	0634		JMP	SERCH
0001	00	00	50	0635		INC2	1
/- 0001	00	04	41	0636		J1NZ	4F
0004	00	02	48	0637		ENTA	4
0290	00	00	39	0638		JMP	ERROR
/ 0629	00	00	39	0639		JMP	PROCESSOP
/ 30 08	00	00	00	0640	0630	ALF	0H
0000	02	09	10	0641	0631	LD2	0,2(1-1)
0030	00	01	50	0642		DEC2	30
0632	00	00	42	0643		J2N	3B
0010	00	01	50	0644		DEC2	10
0632	00	03	42	0645		J2NN	3B
0203	02	05	15	0646		LDX	TABLE+10,2
- 0001	00	02	48	0647		ENTA	=1
/ 0203	02	05	24	0648		STA	TABLE+10,2
/ 0627	00	05	26	0649	0636	ST2	FIX1
/ 0472	00	05	08	0650		LDA	LCTR
/- 0001	00	05	24	0651		STA	FIX2
0001	00	00	55	0652		INCX	1
/- 0001	00	05	31	0653		STX	FIX3
0289	00	05	10	0654	0639	LD2	RBUF
0002	02	21	08	0655		LDA	2,2(2-5)
0000	00	02	55	0656		ENTX	0
0348	00	00	39	0657		JMP	SERCH
0188	00	02	49	0658		ENT1	BOUND+1
/- 0001	00	03	47	0659		JXNN	1F
/ 0466	00	05	31	0660		STX	TEMP
/ 0575	00	05	31	0661		STX	CONFLAG
/ 0603	00	05	33	0662		STZ	INST
/ 0661	00	05	11	0663		LD3	CONFLAG
0671	03	00	39	0664		JMP	*+7,3
/- 0001	00	00	39	0665		JMP	END
/- 0001	00	00	39	0666		JMP	ALF
/- 0001	00	00	39	0667		JMP	CON
/- 0001	00	00	39	0668		JMP	EQU
/- 0001	00	00	39	0669		JMP	ORIG
0850	02	05	33	0670	BADOP	STZ	TABLE1,2
0016	00	02	48	0671		ENTA	16
0290	00	00	39	0672		JMP	ERROR
0000	00	02	55	0673		ENTX	0
/ 0662	00	05	31	0674	0659	STX	INST
/- 0001	00	04	07	0675	1H	MOVE	INSTBOUND(4)
/ 0663	00	05	33	0676		STZ	CONFLAG
0385	00	00	39	0677		JMP	ADDR
0299	00	00	39	0678	FINISHINST	JMP	EDIT
/ 0650	00	05	15	0679		LDX	LCTR
0213	00	00	39	0680		JMP	INSTOUT
/ 0679	00	05	08	0681		LDA	LCTR
0001	00	00	48	0682		INCA	1
/ 0681	00	05	24	0683	SETLCTR	STA	LCTR
/ 0649	00	05	10	0684	FINISHLOC	LD2	FIX1
0620	00	01	42	0685		J2Z	FINLINE
/ 0651	00	05	08	0686		LDA	FIX2
/- 0001	00	02	42	0687		J2P	1F
0213	02	05	24	0688		STA	TABLE+10,2
/- 0001	00	00	39	0689		JMP	2F
1899	02	05	24	0690	0687	STA	EQUIV=1,2
0849	02	00	33	0691		STZ	TABLE1-1,2(0-0)
/ 0653	00	05	15	0692	0689	LDX	FIX3
0620	00	01	47	0693		JXZ	FINLINE
0003	00	02	06	0694		SLAX	3
0002	00	01	06	0695		SRA	2
0002	00	02	06	0696		SLAX	2
0235	00	00	39	0697		JMP	FIXUP
/ 0692	00	05	08	0698		LDA	FIX3
0001	00	01	48	0699		DECA	1
0000	00	01	05	0700		CHAR	
0279	00	05	09	0701		LD1	PBUF
0005	01	21	31	0702		STX	5,1(2-5)
0620	00	00	39	0703		JMP	FINLINE
				0704			

*


```

0269 00 00 39 0780
0000 00 01 37 0781
0000 00 01 35 0782
0000 00 18 35 0783
0002 00 02 05 0784
3500 00 02 54 0785
0000 06 01 36 0786
0040 06 01 36 0787
0000 06 00 39 0788
40 40 40 40 40 0789 0775
01 00000000 0790 0767
0000000000 0791 0765
0000000000 0792 0752
0000000000 0793 0749
0000000000 0794 0762
0000000005 0795 0587
0000000000 0796 0593
0000000000 0797 0599
0000000008 0798 0584
0000000000 0799 0676
0000000000 0800 0535
0000000005 0801 0457
0000000000 0802 0428
0000000000 0803 0604
46 00000000 0804 0417
48 00000000 0805 0756
40 00000000 0806 0411
30 00000000 0807 0409
0000000000 0808 0582
0000000000 0809 0602
0000000000 0810 0560
0000000000 0811 0537
0000000000 0812 0493
0000001050 0813 0354
0000000000 0814 0358
0000000000 0815 0376
0000000000 0816 0660
0000000000 0817 0525
0000000000 0818 0771
0000000000 0819 0748
0000000000 0820 0753
0000000000 0821 0263
0000000000 0822 0262
0000000000 0823 0224
00000.....

```

```

JMP PRINTOUT
OUT TBUF(TAPE)
IOC 0(TAPE)
IOC 0(PRINTER)
HLT 2
ENT 6 3500
IN 0,6(TAPE)
IN 40,6(TAPE)
JMP 0,6
ALF .....
END BEGIN

```

```

1H
=1(1-1)
STARTLOC
FIX3
FIX2
FIX1
=5
R
L
=8
CONFLAG
VALUE
=-5
=0
NEXTCHAR
=46(1-1)
=48(1-1)
=40(1-1)
=30(1-1)
FFIELD
ACCUM
OP
PAREN
UNDOF
=SIZE
TEMPX
TEMPA
TEMP
UNDFLAG
ERRCOUNT
LCTR
INST
BASEINDEX
BASELOC
MAXLOC

```


BEGIN39990000

LOC INSTRUCTION OPERAND REGISTER A REGISTER X RI1 RI2 RI3 RI4 RI5 RI6 RJ T COUNT TIME

test program should be finished

..... MIX ASSEMBLY PROGRAM

```

R      0000 00 20 07 0000
D      /- 0001 00 20 39 0021
      /- 0001 00 05 08 0022
      /- 0001 00 21 56 0023
      /- 0001 00 05 31 0024
R      / 0021 02 02 06 0025
A      / 0025 00 01 34 0026
      0000000000 0027
C      / 0026 00 00 00 0028
UD     /- 0001 00 00 35 0029
MD     30 000900 00 0030
V      0031
F      16 12 01 28 00 0000 0028  OH
L      0000 00 02 05 0001
      0002
U      /- 0001000000 0002 0022  =OF
      00000000002 0003 0029  =2
      00000000000 0004 0024  QUEER
      24999999999 0005 0023  =B,(0-0)
00013.....

```

```

*      MIXAP TEST PROGRAM
      PLEASE BE A GOOD ASSEMBLER
ORIG  1,1+1=1(1-1)
ORIG  =5+9*5
MOVE  (+)
JMP   OF(OB)
EQU   =1/2+2//2
LDA   =OF=
CMPA  =B,(0-0)=(2-5)
STX   QUEER
ORIG  =5
SLAX  OF,2(1-)
JBUS  OF(1)
CON   1.0
XXX   OF+1
IOC   =2=2
CON   ***(2-4),*(1-1)
EQU   0/0
ORIG  5(3-2)
ALF   OKAY
HLT   LENGTHISBAD+3
END   1000000001

```

4 1

← out of range!

0784 HALT

+3030303030 +3030303036 +0125 +0150 +0000 +0000 +0097 +0000 0279 L

00275454

CARDSTART0003

3791	+0001000149	+0000000205	+0000000000	+3033373630	+3898	-0001	-0100	-0001	+3800	+3760	3791	E	0000	00018175
3792	+0000013710	+0002000023	+0000000000	+3033373630	+3897	-0001	-0100	-0001	+3800	+3760	3791	E	0001	00018176
3793	+0000010208	+0002000023	+0000000000	+3033373630	+3897	+0023	-0100	-0001	+3800	+3760	3791	E	0001	00018178
3794	+0026060242	+0001000150	+0000000002	+3033373630	+3897	+0023	-0100	-0001	+3800	+3760	3791	E	0001	00018180
3786	+0001000150	+0000000205	+0000000002	+3033373630	+3897	+0023	-0100	-0001	+3800	+3760	3795	E	0001	00018181
3791	+0001000149	+0000000205	+0000000002	+3033373630	+3897	-0001	-0100	-0001	+3800	+3760	3795	E	0001	00018188
3792	+0000013710	+0003000030	+0000000002	+3033373630	+3896	-0001	-0100	-0001	+3800	+3760	3795	E	0002	00018189
3793	+0000010208	+0003000030	+0000000002	+3033373630	+3896	+0030	-0100	-0001	+3800	+3760	3795	E	0002	00018191
3794	+0026060242	+0001000150	+0000000003	+3033373630	+3896	+0030	-0100	-0001	+3800	+3760	3795	E	0002	00018193
3786	+0001000150	+0000000205	+0000000003	+3033373630	+3896	+0030	-0100	-0001	+3800	+3760	3795	E	0002	00018194
3791	+0001000149	+0000000205	+0000000003	+3033373630	+3896	-0001	-0100	-0001	+3800	+3760	3795	E	0002	00018201
3795	+0002060140	+0000030351	+0000000100	+3033373630	+3893	+0000	-0100	-0001	+3800	+3760	3795	E	0000	00018233
3796	+0000000135	+1612012800	+0000000100	+3033373630	+3893	+0000	-0100	-0001	+3800	+3760	3795	E	0000	00018234
3797	+0000011909	+0100010000	+0000000100	+3033373630	+3893	+0000	-0100	-0001	+3800	+3760	3795	E	0000	00020083
3798	+0000010239	+0000000205	+0000000100	+3033373630	+0001	+0000	-0100	-0001	+3800	+3760	3795	E	0000	00020085
3799	+0000010039	+0000000205	+0000000100	+3033373630	+0001	+0000	-0100	-0001	+3800	+3760	3795	E	0000	00020086
0001	+0000000205	+1612012800	+0000000100	+3033373630	+0001	+0000	-0100	-0001	+3800	+3760	3800	E	0001	00020087
0001	HALT		+0000000100	+3033373630	+0001	+0000	-0100	-0001	+3800	+3760	3800	E		00027682

