

MOVE UP / DOWN ROUTINE

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4 000000
5 000000          ENT CRT.
6 000000          ENT MOVDN
7 000000          ENT MOVDN+
8 000000          ENT MOVUP
9 000000          ENT STACKX
10 000000         ENT ZROEXM
11 000000         ENT ZROE11
12 000000
13 000000         EXT ISCOM
14 000000         EXT ONEB
15 000000         EXT ONER
16 000000         EXT RTOIN
17 000000         EXT ERROR+
18 000000
19 000000
19 000000
20 000000
21 000000
22 000000
23 000000
24 000000
25 000000
26 000000
27 000000
28 000000
29 000000
30 000000
31 000000
32 000000
32 000000
32 000000
33 000000
34 000000 124 211
35 000002 126 211
36 000004
37 000004 150 006 345
38 000007 122 315 010 MOVD10
39 000012 000
39 000013 364 007
40 000015 150 024 343
41 000020 026 347
42 000022 360 363
43 000024 313 010 000 MOVDL-
44 000027 124 213
45 000031 126 213
46 000033 132 223
47 000035 213
48 000036 360 026
49 000040 150 006 345 MOVUP
50 000043 122 315 010 MOVU10
50 000046 000
51 000047 364 007
  
```

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*****
*
* ENTRY MOVUP
* R22 BYTE COUNT
* R24 FWA SOURCE
* R26 FWA SINK
*
*
* ENTRY MOVDN
*
* R22 BYTE COUNT
* R24 LWA SOURCE
* R26 LWA SINK
*
*
*****
  
```

```

MOVDN BSS 0
      ICM R24
      ICM R26
MOVDN+ BSS 0
      PUMD R50,+R6          DON'T BLOW AWAY R50
38 MOVD10 SBM R22,=10,0    -10
      JNG MOVDL-          JIF NOT 10 LEFT
      POMD R50,-R24       SOURCE
      PUMD R50,-R26       TO SINK
      JMP MOVD10
43 MOVDL- ADM R#,=10,0
      DCM R24
      DCM R26
      CLM R32
      DCM
47 -1
48 JMP MOVEM
49 MOVUP PUMD R50,+R6      DON'T BLOW AWAY R50
50 MOVU10 SBM R22,=10,0
      JNG MOVUL-          JIF NOT 10 LEFT
  
```

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>>>> MOVE UP / DOWN ROUTINE <<<<<<<<
2 000051 150 024 341 P0MD R50,+R24 SOURCE
53 000054 026 345 PUMD R50,+R26 TO SINK
54 000056 260 363 JMP MOVU10 LOOP
55 000060 313 010 000 MOVUL- ADM R# ,=10,0 RESTORE R22
56 000063 132 223 CLM R32
57 000065 211 ICM
58 000066 122 221 MOVEM TSM R22 ANY TO MOVE
59 000070 367 016 JZR EXMOV JIF COUNT = ZERO
60 000072 150 024 244 L0BD R50,R24 LOAD SOURCE
61 000075 026 246 STBD R50,R26 STORE SINK
62 000077 124 032 303 ADM R24,R32 UPDATE POINTERS
63 000102 126 303 ADM R26,R32
64 000104 122 213 DCM R22 DECR COUNT
65 000106 266 356 JNZ MOVEM
66 000110 150 006 343 EXMOV P0MD R50,-R6 RESTORE R50
67 000113 236 RTN
68 000114
  
```

>>>> PRINTER IS / CRT IS <<<<<<<< 5  
70 000114  
71 000114 241 OCT 241 CRT IS ATTRIBUTES  
72 000115  
73 000115 120 251 212 CRT. LDM R20,=CS.C. CRT SEL CODE  
73 000120 200  
74 000121 122 251 136 LDM R22,=DISPLN CRT LINE LN  
74 000124 202  
75 000125 104 251 377 GTO ISCOM  
75 000130 377  
76 000131  
77 000131 230 STACKX BIN  
78 000132 126 012 241 LDM R26,R12  
79 000135 325 344 203 SBMD R26,=TOS HOW MUCH ON STACK  
80 000140 220 TSB R26  
81 000141 236 RTN  
82 000142

>>> ZERO AN EXTENDED MEMORY AREA <<<<<<<<

```

000142
85 000142 *****
85 000142 *
86 000142 * R65 = # bytes to be filled w/ blanks *
87 000142 * PTR2 = FWA+1 of area to be filled *
87 000142 *
87 000142 *****
88 000142
89 000142 170 006 345 ZROEXM PUMD R70,+R6 save format data
90 000145 150 345 PUMD R50,+R6 save chr count & more
91 000147 155 261 314 LDMD R55,=PTR2 save buffer pointer
91 000152 377
92 000153 345 PUMD R55,+R6
93 000154 150 250 040 LDB R50,=40 load blanks
94 000157 051 243 STM R50,R51
95 000161 316 214 000 JSB =ZROE11
96 000164 165 075 303 ADM R65,R75 restore R65
97 000167 221 TSM R65
97 000170 367 010 JZR ZRORTN jif done
98 000172 150 272 315 ZROEX3 STBI R50,=PTR2- put one
99 000175 377
100 000176 165 213 DCM R65
101 000200 366 370 JNZ ZROEX3 jif more left
102 000202 ZRORTN ORP 165
103 000202 006 343 POMD R65,-R6
104 000204 263 314 377 STMD R65,=PTR2 restore buffer pointer
104 000207 150 343 POMD R50,-R6 restore chr count
105 000211 170 343 POMD R70,-R6
107 000213 236 ZROEEX RTN
108 000214
109 000214 175 223 ZROE11 CLM R75
110 000216 250 010 LDB R75,=10
111 000220 165 075 305 ZROE+ SBM R65,R75 see if ten or more left
112 000223 372 366 JNC ZROEEX jif no
113 000225 150 273 315 STMI R50,=PTR2- blank/zero ten
113 000230 377
114 000231 360 365 JMP ZROE+
115 000233
116 000233 FIN
  
```

| SYMBOL | VALUE  | TYPE  | COUNT | Symbol Table          |
|--------|--------|-------|-------|-----------------------|
| CRT.   | 000115 | ENT   | 1     |                       |
| C.     | 100212 | G DAD | 1     |                       |
| DISPLN | 101136 | G DAD | 1     |                       |
| ERROR+ | 177777 | EXT   | 0     | <--- NOT REFERENCED?? |
| EXMOV  | 000110 | LCL   | 1     |                       |
| ISCOM  | 177777 | EXT   | 1     |                       |
| MOVD10 | 000007 | LCL   | 1     |                       |
| MOVDL- | 000024 | LCL   | 1     |                       |
| MOVDN  | 000000 | ENT   | 1     |                       |
| MOVDN+ | 000004 | ENT   | 1     |                       |
| MOVEM  | 000066 | LCL   | 2     |                       |
| MOVU10 | 000043 | LCL   | 1     |                       |
| MOVUL- | 000060 | LCL   | 1     |                       |
| MOVUP  | 000040 | ENT   | 1     |                       |
| ONE3   | 177777 | EXT   | 0     | <--- NOT REFERENCED?? |
| ONE8   | 177777 | EXT   | 0     | <--- NOT REFERENCED?? |
| PTR2   | 177714 | G DAD | 2     |                       |
| PTR2-  | 177715 | G DAD | 2     |                       |
| RTOIN  | 177777 | EXT   | 0     | <--- NOT REFERENCED?? |
| STACKX | 000131 | ENT   | 1     |                       |
|        | 101744 | G DAD | 1     |                       |
| ZROE+  | 000220 | LCL   | 1     |                       |
| ZROE11 | 000214 | ENT   | 2     |                       |
| ZROEEK | 000213 | LCL   | 1     |                       |
| ZROEX3 | 000172 | LCL   | 1     |                       |
| ZROEXM | 000142 | ENT   | 1     |                       |
| ZRORTN | 000202 | LCL   | 1     |                       |

MOVE UP / DOWN ROUTINE . . . . . 1  
ENTER IS / CRT IS . . . . . 3  
DO AN EXTENDED MEMORY AREA . . . . . 4

REMOVE HAD 0 ERRORS 0 WARNINGS 27 LABELS LAST ERROR AT 0