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CLEAR STORAGE 1 ,008015,022026,030037,044,049,053053N000000N00001026 1
CLEAR STORAGE 2 L068116,105106,110117B101/I9I#071029C029056B026/B001/0991,001/001117I0? 2
BOOTSTRAP ,008015,022029,036040,047054,061068,072/061039 ,0010011040 3
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FORTRAN COMPILER -- SORT ONE PHASE -- PHASE 04 PAGE 1

| SEQ | PG | LIN | LABEL | OP | OPERANDS | SFX | CT | LOCN | INSTRUCTION | TYPE | CARD |
|-----|-----|-----|--------|-----|---|-----|----|------|-------------|------|------|
| 101 | | | | JOB | FORTRAN COMPILER -- SORT ONE PHASE -- PHASE 04 | | | | | | |
| 102 | | | | CTL | 6611 | | | | | | |
| 103 | | | | * | | | | | | | |
| 104 | | | | * | SORT ONE PHASE: DETERMINE WHETHER THERE IS SUFFICIENT ROOM | | | | | | |
| 105 | | | | * | TO EXPAND EVERY STATEMENT BY THREE CHARACTERS. | | | | | | |
| 106 | | | | * | 81-83 IS ONE BELOW THE GROUP MARK BELOW THE LAST (BOTTOM | | | | | | |
| 107 | | | | * | ADDRESS) IN CORE. | | | | | | |
| 108 | | | | * | | | | | | | |
| 109 | | | X1 | EQU | 89 | | | 0089 | | | |
| 110 | | | X2 | EQU | 94 | | | 0094 | | | |
| 111 | | | X3 | EQU | 99 | | | 0099 | | | |
| 112 | | | | * | | | | | | | |
| 113 | | | | * | STUFF IN THE RESIDENT AREA | | | | | | |
| 114 | | | | * | | | | | | | |
| 115 | | | PHASID | EQU | 110 PHASE ID, FOR SNAPSHOT DUMPS | | | 0110 | | | |
| 116 | | | SNAPSH | EQU | 333 CORE DUMP SNAPSHOT | | | 0333 | | | |
| 117 | | | LOADNX | EQU | 700 LOAD NEXT OVERLAY | | | 0700 | | | |
| 118 | | | CLEARL | EQU | 707 CS AT START OF OVERLAY LOADER | | | 0707 | | | |
| 119 | | | CDOVLY | EQU | 769 1 IF RUNNING FROM CARDS, N IF FROM TAPE | | | 0769 | | | |
| 120 | | | TPREAD | EQU | 780 TAPE READ INSTRUCTION IN OVERLAY LOADER | | | 0780 | | | |
| 121 | | | LOADXX | EQU | 793 EXIT FROM OVERLAY LOADER | | | 0793 | | | |
| 122 | | | CLRBOT | EQU | 833 BOTTOM OF CORE TO CLEAR IN OVERLAY LOADER | | | 0833 | | | |
| 123 | | | | * | | | | | | | |
| 124 | | | | * | TABLE OF ADDRESSES OF THE FIRST STATEMENT OF EACH TYPE, | | | | | | |
| 125 | | | | * | INDEXED BY 30*(ZONE OF STATEMENT TYPE) + 3*(NUMERIC PART OF | | | | | | |
| 126 | | | | * | STATEMENT CODE). FILLED IN NEXT PHASE, Q.V. | | | | | | |
| 127 | | | | * | | | | | | | |
| 128 | | | | ORG | 838 | | | | 0838 | | |
| 129 | | | LOADDD | EQU | *&1 LOAD ADDRESS | | | | | | |
| 130 | 840 | | | DCW | #3 BLANK | 3 | | 0840 | | | 4 |
| 131 | 843 | | | DCW | #3 1 READ TAPE | 3 | | 0843 | | | 4 |
| 132 | 846 | | | DCW | #3 2 | 3 | | 0846 | | | 4 |
| 133 | 849 | | | DCW | #3 3 WRITE TAPE | 3 | | 0849 | | | 4 |
| 134 | 852 | | | DCW | #3 4 | 3 | | 0852 | | | 4 |
| 135 | 855 | | | DCW | #3 5 READ INPUT TAPE | 3 | | 0855 | | | 4 |
| 136 | 858 | | | DCW | #3 6 WRITE OUTPUT TAPE | 3 | | 0858 | | | 4 |
| 137 | 861 | | | DCW | #3 7 | 3 | | 0861 | | | 5 |
| 138 | 864 | | | DCW | #3 8 | 3 | | 0864 | | | 5 |
| 139 | 867 | | | DCW | #3 9 | 3 | | 0867 | | | 5 |
| 140 | 870 | | | DCW | #3 0 | 3 | | 0870 | | | 5 |
| 141 | 873 | | | DCW | #3 / END | 3 | | 0873 | | | 5 |
| 142 | 876 | | | DCW | #3 S STOP | 3 | | 0876 | | | 5 |
| 143 | 879 | | | DCW | #3 T COMPUTED GOTO | 3 | | 0879 | | | 5 |
| 144 | 882 | | | DCW | #3 U PUNCH | 3 | | 0882 | | | 6 |
| 145 | 885 | | | DCW | #3 V | 3 | | 0885 | | | 6 |
| 146 | 888 | | | DCW | #3 W IF (SENSE SWITCH ...) | 3 | | 0888 | | | 6 |
| 147 | 891 | | | DCW | #3 X | 3 | | 0891 | | | 6 |

| SEQ | PG | LIN | LABEL | OP | OPERANDS | SFX | CT | LOCN | INSTRUCTION | TYPE | CARD |
|-----|----|-----|--------|-------|--|-----|----|------------------|-------------|-------|------|
| 148 | | 894 | | DCW | #3 Y | | | 3 0894 | | | 6 |
| 149 | | 897 | | DCW | #3 Z REWIND | | | 3 0897 | | | 6 |
| 150 | | 900 | | DCW | #3 ! | | | 3 0900 | | | 6 |
| 151 | | 903 | | DCW | #3 J SENSE LIGHT | | | 3 0903 | | | 7 |
| 152 | | 906 | | DCW | #3 K IF (SENSE LIGHT ...) | | | 3 0906 | | | 7 |
| 153 | | 909 | | DCW | #3 L READ | | | 3 0909 | | | 7 |
| 154 | | 912 | | DCW | #3 M | | | 3 0912 | | | 7 |
| 155 | | 915 | | DCW | #3 N ENDFILE | | | 3 0915 | | | 7 |
| 156 | | 918 | | DCW | #3 O | | | 3 0918 | | | 7 |
| 157 | | 921 | | DCW | #3 P PRINT | | | 3 0921 | | | 7 |
| 158 | | 924 | | DCW | #3 Q | | | 3 0924 | | | 8 |
| 159 | | 927 | | DCW | #3 R ARITHMETIC | | | 3 0927 | | | 8 |
| 160 | | 930 | | DCW | #3 ? | | | 3 0930 | | | 8 |
| 161 | | 933 | | DCW | #3 A PAUSE | | | 3 0933 | | | 8 |
| 162 | | 936 | | DCW | #3 B BACKSPACE | | | 3 0936 | | | 8 |
| 163 | | 939 | | DCW | #3 C CONTINUE | | | 3 0939 | | | 8 |
| 164 | | 942 | | DCW | #3 D DO | | | 3 0942 | | | 8 |
| 165 | | 945 | | DCW | #3 E IF | | | 3 0945 | | | 9 |
| 166 | | 948 | | DCW | #3 F FORMAT | | | 3 0948 | | | 9 |
| 167 | | 951 | | DCW | #3 G GOTO | | | 3 0951 | | | 9 |
| 168 | | 954 | | DCW | #3 H | | | 3 0954 | | | 9 |
| 169 | | 957 | | DCW | #3 I DIMENSION | | | 3 0957 | | | 9 |
| 170 | | | | ORG | 1006 | | | | 1006 | | |
| 171 | 1 | 009 | ZONES | DCW | @2SKB@ | | | 4 1009 | | | 10 |
| 172 | | | | * | | | | | | | |
| 173 | | | | * | START HERE INSTEAD OF 838 | | | | | | |
| 174 | | | | * | | | | | | | |
| 175 | 1 | 010 | BEGINN | CS | 2599 | | | 4 1010 / N99 | | | 10 |
| 176 | 1 | 014 | | CHAIN | 8 | | | | | MACRO | |
| 177 | | | | CS | | | | 1 1014 / | | GEN | 10 |
| 178 | | | | CS | | | | 1 1015 / | | GEN | 10 |
| 179 | | | | CS | | | | 1 1016 / | | GEN | 10 |
| 180 | | | | CS | | | | 1 1017 / | | GEN | 10 |
| 181 | | | | CS | | | | 1 1018 / | | GEN | 10 |
| 182 | | | | CS | | | | 1 1019 / | | GEN | 11 |
| 183 | | | | CS | | | | 1 1020 / | | GEN | 11 |
| 184 | | | | CS | | | | 1 1021 / | | GEN | 11 |
| 185 | 1 | 022 | | MCW | 83,X3 ADDRESS OF END OF LAST STATEMENT | | | 7 1022 M 083 099 | | | 11 |
| 186 | 1 | 029 | | MCM | 2&X3 | | | 4 1029 P 0?2 | | | 11 |
| 187 | 1 | 033 | | MCW | | | | 1 1033 M | | | 11 |
| 188 | 1 | 034 | | SBR | X3 ADDRESS OF BEGINNING OF LAST STATEMENT | | | 4 1034 H 099 | | | 11 |
| 189 | | | | * | | | | | | | |
| 190 | | | | * | MULTIPLY STATEMENT NUMBER OF LAST STATEMENT BY 3 | | | | | | |
| 191 | | | | * | | | | | | | |
| 192 | 1 | 038 | | MCW | 0&X3,SEQ | | | 7 1038 M 0?0 T52 | | | 12 |
| 193 | 1 | 045 | | ZA | SEQ,SEQ5 | | | 7 1045 ? T52 T57 | | | 12 |
| 194 | 1 | 052 | | A | SEQ5 | | | 4 1052 A T57 | | | 12 |
| 195 | 1 | 056 | | A | SEQ,SEQ5 | | | 7 1056 A T52 T57 | | | 12 |
| 196 | 1 | 063 | | S | KP2,SEQ5 3 * # STMTS - 2 | | | 7 1063 S T58 T57 | | | 12 |
| 197 | 1 | 070 | | MCW | SEQ5,WORK5 | | | 7 1070 M T57 T63 | | | 12 |

| SEQ | PG | LIN | LABEL | OP | OPERANDS | SFX | CT | LOCN | INSTRUCTION | TYPE | CARD |
|-----|----|-----|-------|-----|---|-----|----|------|-------------|-------|------|
| 248 | 1 | 293 | OK | MCW | X2,83 REPLACE ADDRESS OF BOTTOM OF CODE | 7 | | 1293 | M 094 083 | | 19 |
| 249 | 1 | 300 | | MCM | 0&X1 | 4 | | 1300 | P 0 0 | | 19 |
| 250 | 1 | 304 | | SAR | X1 ADDRESS BELOW LAST STATEMENT | 4 | | 1304 | Q 089 | | 19 |
| 251 | 1 | 308 | | BSS | SNAPSH,C | 5 | | 1308 | B 333 C | | 19 |
| 252 | 1 | 313 | | SBR | TPREAD&6,1022 CHANGE LOAD ADDRESS FOR NEXT PHASE | 7 | | 1313 | H 786 22 | | 19 |
| 253 | 1 | 320 | | SBR | CLRBOT | 4 | | 1320 | H 833 | | 19 |
| 254 | 1 | 324 | | SBR | LOADXX&3,1022 CHANGE ENTRY ADDRESS FOR NEXT PHASE | 7 | | 1324 | H 796 22 | | 20 |
| 255 | 1 | 331 | | SBR | CLEARL&3,SORT2&1 | 7 | | 1331 | H 710 U27 | | 20 |
| 256 | 1 | 338 | | LCA | SORT2,PHASID | 7 | | 1338 | L U26 110 | | 20 |
| 257 | 1 | 345 | | B | LOADNX LOAD NEXT OVERLAY | 4 | | 1345 | B 700 | | 20 |
| 258 | | | | * | | | | | | | |
| 259 | | | | * | CONSTANTS AND WORK AREAS | | | | | | |
| 260 | | | | * | | | | | | | |
| 261 | 1 | 349 | | DCW | 0 | 1 | | 1349 | | | 20 |
| 262 | 1 | 352 | SEQ | DCW | #3 SEQUENCE NUMBER OF LAST STATEMENT | 3 | | 1352 | | | 20 |
| 263 | 1 | 357 | SEQ5 | DCW | #5 STMT NUMBER TIMES 3 | 5 | | 1357 | | | 20 |
| 264 | 1 | 358 | KP2 | DCW | &2 | 1 | | 1358 | | | 21 |
| 265 | 1 | 363 | WORK5 | DCW | #5 | 5 | | 1363 | | | 21 |
| 266 | 1 | 368 | K16K | DCW | 16000 | 5 | | 1368 | | | 21 |
| 267 | 1 | 370 | KP96 | DCW | &96 | 2 | | 1370 | | | 21 |
| 268 | 1 | 371 | KM1 | DCW | -1 | 1 | | 1371 | | | 21 |
| 269 | 1 | 373 | W2A | DCW | #2 | 2 | | 1373 | | | 21 |
| 270 | 1 | 375 | W2B | DCW | #2 | 2 | | 1375 | | | 21 |
| 271 | 1 | 377 | K10V | DCW | @A0@ TEN, OVERFLOWED | 2 | | 1377 | | | 22 |
| 272 | 1 | 379 | K04V | DCW | @?4@ 04, OVERFLOWED | 2 | | 1379 | | | 22 |
| 273 | 1 | 384 | K2900 | DCW | 02900 | 5 | | 1384 | | | 22 |
| 274 | 1 | 420 | MSG2 | DCW | @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@ | 36 | | 1420 | | | 23 |
| 275 | 1 | 426 | SORT2 | DCW | @SORT 2@ | 6 | | 1426 | | | 24 |
| 276 | 1 | 427 | GMWM | DCW | @j@ | 1 | | 1427 | | GMARK | 24 |
| 277 | | | | ORG | 201 | | | | 0201 | | |
| 278 | | 203 | | DSA | LOADDD LOAD ADDRESS FOR CARD-TO-TAPE PROGRAM | 3 | | 0203 | 838 | | 25 |
| 279 | | | | EX | BEGINN | | | | B 10 | | 26 |
| 280 | | | | END | | | | | / 000 080 | | |

