

|                |     |              |                  |
|----------------|-----|--------------|------------------|
| DDDDDDDDDDDDDD |     | CCCCCCCCCCCC | LLL              |
| DDDDDDDDDDDDDD |     | CCCCCCCCCCCC | LLL              |
| DDDDDDDDDDDDDD |     | CCCCCCCCCCCC | LLL              |
| DDD            | DDD | CCC          | LLL              |
| DDD            | DDD | CCC          | LLL              |
| DDD            | DDD | CCC          | LLL              |
| DDD            | DDD | CCC          | LLL              |
| DDD            | DDD | CCC          | LLL              |
| DDD            | DDD | CCC          | LLL              |
| DDD            | DDD | CCC          | LLL              |
| DDD            | DDD | CCC          | LLL              |
| DDD            | DDD | CCC          | LLL              |
| DDD            | DDD | CCC          | LLL              |
| DDD            | DDD | CCC          | LLL              |
| DDD            | DDD | CCC          | LLL              |
| DDD            | DDD | CCC          | LLL              |
| DDD            | DDD | CCC          | LLL              |
| DDDDDDDDDDDDDD |     | CCCCCCCCCCCC | LLLLLLLLLLLLLLLL |
| DDDDDDDDDDDDDD |     | CCCCCCCCCCCC | LLLLLLLLLLLLLLLL |
| DDDDDDDDDDDDDD |     | CCCCCCCCCCCC | LLLLLLLLLLLLLLLL |



(3) 75  
(4) 248  
(5) 319  
(6) 352

GOTO LABEL  
FLUSH CURRENT RECORD AND ANY CONTINUATIONS  
ALLOCATE A LABEL SYMBOL TABLE ENTRY  
DEALLOCATE GOTO CONTROL BLOCK

```
0000 1 .TITLE GOTO - GOTO COMMAND EXECUTION
0000 2 .IDENT 'V04-000'
0000 3
0000 4
0000 5 *****
0000 6 *
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0000 24 *
0000 25 *
0000 26 *****
0000 27
0000 28 GOTO COMMAND EXECUTION
0000 29
0000 30 D. N. CUTLER 6-MAY-77
0000 31
0000 32 MODIFIED BY:
0000 33
0000 34 V03-007 HWS0003 Harold Schultz 06-FEB-1984
0000 35 Treat lines that begin without a '$' and end with a
0000 36 '-' as a line of data and not as a command continuation.
0000 37
0000 38 V03-006 PCG0006 Peter George 28-Nov-1983
0000 39 Allow blanks to appear between label and trailing colon.
0000 40
0000 41 V03-005 PCG0005 Peter George 15-Jul-1983
0000 42 Use multi-national upcase algorithm.
0000 43 Support null nodes.
0000 44
0000 45 V03-004 PCG0004 Peter George 23-Jun-1983
0000 46 Clear DCL_L_SYMBOL after deallocating it.
0000 47
0000 48 V03-003 PCG0003 Peter George 25-Apr-1983
0000 49 Do not return if success. Branch to DCL$RESTART.
0000 50
0000 51 V03-002 PCG0002 Peter George 01-Apr-1983
0000 52 Perform forward goto scanning here.
0000 53
0000 54 V03-001 PCG0001 Peter George 24-Feb-1983
0000 55 Remove SETBIT WRK_V_NOSTAT.
0000 56 ---
```

```
0000 58 :  
0000 59 : MACRO LIBRARY CALLS  
0000 60 :  
0000 61 PRCDEF ;DEFINE PROCESS WORK AREA  
0000 62 WRKDEF ;DEFINE COMMAND WORK AREA  
0000 63 SYMDEF ;DEFINE SYMBOL ENTRY OFFSETS  
0000 64 $CLIMSGDEF ;DEFINE ERROR/STATUS VALUES  
0000 65 $DEVDEF ;DEFINE DEVICE CHARACTERISTIC BITS  
0000 66 $RABDEF ;DEFINE RAB OFFSETS  
0000 67 $STSDEF ;DEFINE MESSAGE BITS  
0000 68  
00000000 69 .PSECT DCL$ZCODE,BYTE,RD,NOWRT  
0000 70  
SE 3D 3F 3E 5D 29 28 2D 2C 2B 2F 3A 0000 71 TERM: .ASCII \:/+,-( )>?=#@*'[<.; ! \  
09 21 20 3B 2E 3C 5B 27 2A 40 23 000C  
00 0017 72 .BYTE 0  
0018 73 TERMEND:
```

```
0018 75 .SBTTL GOTO LABEL
0018 76 :+
0018 77 : DCL$GOTO - GOTO LABEL
0018 78 :
0018 79 : THIS ROUTINE IS CALLED AS AN INTERNAL COMMAND TO EXECUTE THE GOTO LABEL DCLS
0018 80 : COMMAND.
0018 81 :
0018 82 : R10 = BASE ADDRESS OF COMMAND WORK AREA.
0018 83 : R11 = BASE ADDRESS OF PROCESS WORK AREA.
0018 84 :
0018 85 : OUTPUTS:
0018 86 :
0018 87 : THE SPECIFIED LABEL IS SEARCHED FOR IN THE CURRENT LABEL TABLE, AND IF
0018 88 : FOUND, A RANDOM FIND IS EXECUTED TO POSITION THE INPUT FILE FOR SUBSE-
0018 89 : QUENT GET OPERATIONS. OTHERWISE A FORWARD GOTO SEARCH IS EXECUTED.
0018 90 :-
0018 91 :
0018 92 DCL$GOTO:: ;GOTO LABEL
0018 93 :
0018 94 :
0018 95 : DISABLE CTRL/Y AST'S.
0018 96 :
0018 97 : DISABLE
2E 7C 001E 98 CLRQ (SP)+ ;DISABLE CTRL/Y'S
0020 99 SETBIT WRK_V_NOSTAT,WRK_W_FLAGS(R10) ;REMOVE RETURN INFO FROM STACK
0025 100 ;DO NOT CHANGE $STATUS ON SUCCESS
0025 101 :
0025 102 : CHECK IF GOTO'S ARE ALLOWED.
0025 103 :
50 14 AB DO 0025 104 MOVL PRC L INDINPRAB(R11),R0 ;GET CURRENT INPUT RAB
3B 18 A0 1C E1 0029 105 BBC #DEV$V_RND,RAB$L_CTX(R0),10$ ;IF CLR, NOT RANDOM ACCESS DEVICE
002E 106 :
002E 107 :
002E 108 : GET DESTINATION. CHECK IF IT'S ALREADY DEFINED.
002E 109 :
50 7E FFCF' 30 002E 110 BSBW DCL$GETDVAL ;GET LABEL DESCRIPTOR VALUES
7E 51 7D 0031 111 MOVQ R1,-(SP) ;SAVE LABEL DESCRIPTOR
50 30 AB 9E 0034 112 MOVAB PRC Q LABEL(R11),R0 ;GET ADDRESS OF LABEL TABLE LISTHEAD
51 FFC5' 30 0038 113 BSBW DCL$SEARCHT ;SEARCH TABLE FOR LABEL
38 50 7D 003B 114 MOVQ (SP)+,R1 ;RESTORE LABEL DESCRIPTOR
E9 003E 115 BLBC R0,30$ ;IF LBC LABEL NOT FOUND
0041 116 :
0041 117 :
0041 118 : LABEL DEFINED - POINT TO PROPER RECORD
0041 119 :
56 53 DO 0041 120 MOVL R3,R6 ;COPY SYMBOL ADDRESS
54 51 7D 0044 121 MOVQ R1,R4 ;COPY LABEL DESCRIPTOR
57 14 AB DO 0047 122 5$: MOVL PRC L INDINPRAB(R11),R7 ;GET ADDRESS OF INDIRECT FILE RAB
10 A7 OF A644 06 28 004B 123 MOVQ #6,SYM T SYMBOL+3(R6)[R4],- ;RESTORE RECORD FILE ADDRESS
0052 124 RAB$W_RFA(R7)
1E A7 02 90 0052 125 MOVQ #RAB$C_RFA,RAB$B_RAC(R7) ;SET ACCESS MODE FOR RANDOM FIND
0056 126 $FIND RAB=(R7) ;FIND RECORD THAT HAS LABEL
0E 50 E9 005F 127 BLBC R0,20$ ;SIGNAL ANY ERRORS
1E A7 00 90 0062 128 MOVQ #RAB$C_SEQ,RAB$B_RAC(R7) ;RESET TO SEQUENTIAL ACCESS MODE
FF97' 31 0066 129 BRW DCL$RESTART ;EXECUTE THE SPECIFIED COMMAND
0069 130 10$: STATUS NORMAL ;SET NORMAL STATUS
05 0070 131 20$: RSB ;RETURN
```

```
0071 132
0071 133 :
0071 134 : RETURN SYMOVF.
0071 135 :
0071 136 22$: STATUS SYMOVF
05 0078 137 RSB
0079 138
0079 139 :
0079 140 : LABEL NOT DEFINED. SAVE IT IN THE SYMBOL TABLE.
0079 141 :
0079 142 30$: MOVQ R1,R4 ;SAVE DESCRIPTOR OF LABEL
54 51 7D 007C 143 ADDL #1,R1 ;ADD IN LABEL SIZE BYTE
51 01 C0 007F 144 BSBW DCL$ALLDYNMEM ;ALLOCATE DYNAMIC MEMORY
FF7E' 30 0082 145 BLBC R0,22$ ;BR IF FAILED
EC 50 E9 0085 146 MOVL R2,PRC_L_SYMBOL(R11) ;SAVE TARGET FOR GOTO
60 AB 52 D0 0089 147 MOVB R4,(R2)+ ;SET SIZE OF LABEL STRING
82 54 90 008C 148 MOVC R4,(R5),(R2) ;FILL IN LABEL NAME
62 65 54 28 0090 149
0090 150 :
0090 151 : LOOK AHEAD FOR THE LABEL.
0090 152 :
0090 153 :
68 AB 10 A8 0090 153 B1SW #PRC_M_GOTO,PRC_W_FLAGS(R11) ;SET FORWARD GOTO IN PROGRESS
68 AB 20 A8 0094 154 40$: B1SW #PRC_M_IND,PRC_W_FLAGS(R11) ;IGNORE @ SIGNS
FF65' 30 0098 155 BSBW DCL$INPUT ;GET NEXT COMMAND
68 AB 20 AA 009B 156 B1CW #PRC_M_IND,PRC_W_FLAGS(R11) ;RESTORE @ SIGNS
25 68 AB 04 E1 009F 157 BBC #PRC_V_GOTO,PRC_W_FLAGS(R11),25$ ;BRANCH IF EOF
53 F48E CA D0 00A4 158 MOVL WRK_C_CHARPTR(RT0),R3 ;POINT TO FIRST CHARACTER
53 53 D7 00A9 159 DECL R3 ;BACK UP A CHAR
00AB 160
00AB 161 :
00AB 162 : IGNORE LEADING BLANKS, LEADING '$', AND LINES THAT ARE ENTIRELY BLANK.
00AB 163 :
00AB 164 :
50 D4 00AB 164 CLRL R0 ;ASSUME NO '$'
53 D6 00AD 165 50$: INCL R3 ;GET NEXT CHAR
63 95 00AF 166 TSTB (R3) ;EOL?
E1 13 00B1 167 BEQL 40$ ;YES, THEN GET NEXT LINE
63 20 91 00B3 168 CMPB #^X20,(R3) ;SKIP LEADING BLANKS
F5 13 00B6 169 BEQL 50$
63 09 91 00B8 170 CMPB #^X09,(R3)
F0 13 00BB 171 BEQL 50$
63 24 91 00BD 172 CMPB #^A/$/, (R3) ;SKIP LEADING '$'
OF 12 00C0 173 BNEQ 53$ ;BRANCH IF NOT
E7 50 00  E3 00C2 174 BBCS #0,R0,50$ ;SET FLAG, GET NEXT CHAR
0083 31 00C6 175 BRW 70$ ;FLUSH IF PREVIOUSLY SET
00C9 176
00C9 177 :
00C9 178 : EOF ENCOUNTERED. RETURN USGOTO.
00C9 179 :
50 10038148 8F D0 00C9 180 25$: MOVL #CLI$_USGOTO!STSM_INHIB_MSG,R0 ;SET UNSATISFIED GOTO STATUS
05 00D0 181 RSB
00D1 182
00D1 183 :
00D1 184 : DETERMINE IF THERE IS A LABEL ON THIS LINE.
00D1 185 :
FF26 CF 52 53 D0 00D1 186 53$: MOVL R3,R2 ;SAVE START OF LABEL PTR
18 63 3A 00D4 187 55$: LOCC (R3),#TERMEND-TERM,TERM ;FIND THE FIRST TERMINATOR
1F 12 00DA 188 BNEQ 58$ ;BRANCH IF FOUND
```

```
61 8F 63 91 00DC 189 CMPB (R3),#^A/a/ ;CHECK LOW LIMIT OF LOW RANGE
15 1F 00E0 190 BLSSU 57$ ;BR IF FAILED
7A 8F 63 91 00E2 191 CMPB (R3),#^A/z/ ;CHECK HIGH LIMIT OF LOW RANGE
0C 1B 00E6 192 BLEQU 56$ ;BR IF VALID CHARACTER
EO 8F 63 91 00E8 193 CMPB (R3),#^XE0 ;CHECK LOW LIMIT OF HIGH RANGE
09 1F 00EC 194 BLSSU 57$ ;BR IF FAILED
FE 8F 63 91 00EE 195 CMPB (R3),#^XFE ;CHECK HIGH LIMIT OF HIGH RANGE
03 1A 00F2 196 BGTRU 57$ ;BR IF FAILED
63 20 8A 00F4 197 56$: BICB #^X20,(R3) ;UPCASE THE CHARACTER
53 D6 00F7 198 57$: INCL R3 ;GET NEXT CHAR
D9 11 00F9 199 BRB 55$ ;CHECK NEXT CHAR
00FB 200
51 53 D0 00FB 201 58$: MOVL R3,R1 ;SAVE END OF LABEL PTR
02 11 00FE 202 BRB 60$ ;
0100 203
63 53 D6 0100 204 59$: INCL R3 ;GET NEXT CHAR
20 91 0102 205 60$: CMPB #^X20,(R3) ;SKIP BLANKS
F9 13 0105 206 BEQL 59$ ;
63 09 91 0107 207 CMPB #^X09,(R3) ;
F4 13 010A 208 BEQL 59$ ;
63 3A 91 010C 209 CMPB #^A/:/, (R3) ;WAS IT A COLON?
3B 12 010F 210 BNEQ 70$ ;NO, FLUSH THIS RECORD
01 A3 3A 91 0111 211 CMPB #^A/:/,1(R3) ;IS IT A NULL NODE?
35 13 0115 212 BEQL 70$ ;YES, FLUSH THIS RECORD
01 A3 3D 91 0117 213 CMPB #^A/=/,1(R3) ;IS IT AN ASSIGNMENT?
2F 13 011B 214 BEQL 70$ ;YES, FLUSH THIS RECORD
011D 215
011D 216 ;
011D 217 ; A LABEL HAS BEEN FOUND. INSERT IT IN THE LABEL TABLE.
011D 218 ;
51 52 C2 011D 219 SUBL R2,R1 ;GET LENGTH OF LABEL
009C 30 0120 220 BSBW DCL$ALLOC_LABEL ;ALLOCATE A LABEL SYMBOL FOR IT
0A 50 E8 0123 221 BLBS R0,65$ ;BRANCH IF SUCCESS
68 AB 10 AA 0126 222 BICW #PRC_M_GOTO,PRC_W_FLAGS(R11) ;CLEAR GOTO IN PROGRESS FLAGS
00B4 30 012A 223 BSBW DCL$DEALGOTO ;DEALLOCATE THE GOTO SYMBOL
FF41 31 012D 224 BRW 22$ ;SIGNAL THE ERROR
0130 225
0130 226 ;
0130 227 ; DOES IT MATCH THE ONE WE WERE LOOKING FOR? IF SO, RESET RMS CONTEXT
0130 228 ; TO REREAD THIS RECORD.
0130 229 ;
52 60 AB D0 0130 230 65$: MOVL PRC_L_SYMBOL(R11),R2 ;GET TARGET OF GOTO
51 82 9A 0134 231 MOVZBL (R2)+,R1 ;CREATE LABEL DESCRIPTOR
51 54 D1 0137 232 CMPL R4,R1 ;DOES LENGTH MATCH?
10 12 013A 233 BNEQ 70$ ;NO, FLUSH THIS RECORD
62 65 54 29 013C 234 CMPC3 R4,(R5),(R2) ;DOES THE STRING MATCH
0A 12 0140 235 BNEQ 70$ ;NO, FLUSH THIS RECORD
68 AB 10 AA 0142 236 BICW #PRC_M_GOTO,PRC_W_FLAGS(R11) ;CLEAR GOTO IN PROGRESS FLAGS
0098 30 0146 237 BSBW DCL$DEALGOTO ;DEALLOCATE THE GOTO SYMBOL
FEFB 31 0149 238 BRW 5$ ;POSITION FILE TO GOTO LABEL
014C 239
014C 240 ;
014C 241 ; FLUSH THE RECORD.
014C 242 ;
0B 10 014C 243 70$: BSBB FLUSH ;FLUSH THE RECORD
03 68 AB 04 E1 014E 244 BBC #PRC_V_GOTO,PRC_W_FLAGS(R11),71$ ;BRANCH IF EOF
FF3E 31 0153 245 BRW 40$ ;GET THE NEXT RECORD
```

GOTO  
V04-000

- GOTO COMMAND EXECUTION  
GOTO LABEL

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FF70 31 0156 246 71\$: BRW 25\$

;

```
0159 248 .SBTTL FLUSH CURRENT RECORD AND ANY CONTINUATIONS
0159 249 :+
0159 250 : FLUSH - FLUSH CURRENT RECORD AND ANY CONTINUATIONS
0159 251 :
0159 252 : THIS ROUTINE IS CALLED TO FLUSH CURRENT RECORD AND ANY CONTINUATIONS.
0159 253 :
0159 254 : INPUTS:
0159 255 :
0159 256 : R10 = ADDRESS OF WRK DATA STRUCTURE
0159 257 : R11 = ADDRESS OF PRC DATA STRUCTURE
0159 258 :
0159 259 : OUTPUTS:
0159 260 :
0159 261 : R0 = STATUS
0159 262 :-
0159 263 :
0159 264 FLUSH:
0159 265 CLRL -(SP) ;FLUSH THE INPUT
0159 266 CMPB @WRK_L_CHARPTR(R10),#^A/$/ ;USE STACK AS TEMP. FLAG
0159 267 BNEQ 2$ ;IS FIRST CHAR. A '$' ?
0159 268 INCL (SP) ;NO, TREAT LINE AS DATA.
0159 269 : ;YES, TREAT AS A COMMAND LINE
0159 270 : POINT TO FIRST CHARACTER IN RECORD AND INIT QUOTE FLAG.
0159 271 :
0159 272 2$: MOVL WRK_L_CHARPTR(R10),R1 ;POINT TO FIRST CHARACTER
0159 273 DECL R1 ;BACK UP A CHAR
0159 274 MOVL R1,R2 ;SAVE UNDERFLOW CHAR PTR
0159 275 CLRL R3 ;INIT QUOTE FLAG
0159 276 :
0159 277 : SEARCH FOR EOL OR TRAILING COMMENT.
0159 278 :
0159 279 :
0159 280 10$: INCL R1 ;GET NEXT CHAR
0159 281 TSTB (R1) ;EOL?
0159 282 BEQL 40$ ;YES, THEN CHECK FOR '"-'
0159 283 CMPB #^A/'/',(R1) ;QUOTE?
0159 284 BNEQ 20$ ;BRANCH IF NOT
0159 285 INCL R3 ;TOGGLE THE FLAG
0159 286 BRB 10$ ;GET NEXT CHAR
0159 287 20$: BLBS R3,10$ ;BRANCH IF IN QUOTES
0159 288 CMPB #^A/!/, (R1) ;COMMENT?
0159 289 BEQL 40$ ;YES, THEN CHECK FOR '"-'
0159 290 BRB 10$ ;GET NEXT CHAR
0159 291 :
0159 292 : BACK UP OVER TRAILING BLANKS.
0159 293 :
0159 294 :
0159 295 40$: DECL R1 ;BACK UP A CHAR
0159 296 CMPL R1,R2 ;CHECK FOR START OF LINE
0159 297 BEQL 90$ ;IF FOUND, THEN DONE
0159 298 CMPB #^X20,(R1) ;SPACE?
0159 299 BEQL 40$ ;YES, THEN BACK UP AGAIN
0159 300 CMPB #^X09,(R1) ;TAB?
0159 301 BEQL 40$ ;YES, THEN BACK UP AGAIN
0159 302 :
0159 303 :
0159 304 : CHECK FOR CONTINUATION CHARACTER.
```

GOTO  
V04-000

- GOTO COMMAND EXECUTION  
FLUSH CURRENT RECORD AND ANY CONTINUATIO

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VAX/VMS Macro V04-00  
[DCL.SRC]GOTO.MAR;1

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|    |    |    |      |      |     |       |                                     |   |                              |
|----|----|----|------|------|-----|-------|-------------------------------------|---|------------------------------|
| 61 | 2D | 91 | 019A | 305  | :   |       |                                     |   |                              |
|    | 15 | 12 | 019A | 306  |     | CMPB  | #^A/-/, (R1)                        | : | CONTINUATION?                |
|    |    |    | 019D | 307  |     | BNEQ  | 90\$                                | : | NO, THEN DONE                |
| 68 | AB | 20 | A8   | 019F | 308 | BISW  | #PRC_M_IND, PRC_W_FLAGS(R11)        | : | IGNORE @ SIGNS               |
|    | OE | 6E | E9   | 01A3 | 309 | BLBC  | (SP), 90\$                          | : | IF DATA, THEN DONE           |
|    |    |    | 30   | 01A6 | 310 | BSBW  | DCL\$INPUT                          | : | GET CONTINUATION LINE        |
| 68 | AB | 20 | AA   | 01A9 | 311 | BICW  | #PRC_M_IND, PRC_W_FLAGS(R11)        | : | RESTORE @ SIGNS              |
| 02 | 68 | AB | E1   | 01AD | 312 | BBC   | #PRC_V_GOTO, PRC_W_FLAGS(R11), 90\$ | : | BRANCH IF EOF                |
|    |    | B0 | 11   | 01B2 | 313 | BRB   | 2\$                                 | : | FLUSH IT TOO                 |
|    |    |    |      | 01B4 | 314 |       |                                     |   |                              |
|    | 5E | 04 | C0   | 01B4 | 315 | 90\$: | ADDL #4, SP                         | : | REMOVE TEMP. FLAG FROM STACK |
|    |    |    |      | 01B7 | 316 |       | STATUS NORMAL                       | : | SET NORMAL STATUS            |
|    |    | 05 | 01BE | 317  |     | RSB   |                                     | : | RETURN                       |

```
01BF 319 .SBTTL ALLOCATE A LABEL SYMBOL TABLE ENTRY
01BF 320 :+
01BF 321 : DCL$ALLOC_LABEL - ALLOCATE A LABEL SYMBOL TABLE ENTRY
01BF 322 :
01BF 323 : THIS ROUTINE IS CALLED TO ALLOCATE A LABEL SYMBOL TABLE ENTRY.
01BF 324 :
01BF 325 : INPUTS:
01BF 326 :
01BF 327 : R1/R2 = LABEL DESCRIPTOR
01BF 328 : R11 = ADDRESS OF PRC DATA STRUCTURE
01BF 329 :
01BF 330 : OUTPUTS:
01BF 331 :
01BF 332 : R0 = STATUS
01BF 333 : R4/R5 = LABEL DESCRIPTOR
01BF 334 : R6 = SYMBOL ADDRESS
01BF 335 :
01BF 336 : CTRL/Y'S ARE ASSUMED TO HAVE BEEN DISABLED.
01BF 337 :
01BF 338 : -
01BF 339 DCL$ALLOC_LABEL::
55 7E 51 7D 01BF 340 MOVQ R1, -(SP) ;SAVE R1/R2
30 AB 9E 01C2 341 MOVAB PRC_Q_LABEL(R11),R5 ;SET ADDRESS OF TABLE LIST HEAD
53 51 7D 01C6 342 MOVQ R1,R3 ;SET LABEL NAME
14 AB D0 01C9 343 MOVL PRC_L_INDINPRAB(R11),R0 ;GET RAB ADDRESS
52 10 A0 9E 01CD 344 MOVAB RAB$W_RFA(R0),R2 ;SET ADDRESS OF RFA
51 06 9A 01D1 345 MOVZBL #6,R1 ;SET LENGTH OF RFA
50 03 D0 01D4 346 MOVL #SYM_K_LABEL,R0 ;SET SYMBOL TYPE
FE26' 30 01D7 347 BSBW DCL$ALLOCSYM ;CREATE THE LABEL ENTRY
56 51 D0 01DA 348 MOVL R1,R6 ;GET SYMBOL ADDRESS
54 8E 7D 01DD 349 MOVQ (SP)+,R4 ;RESTORE R1/R2
05 01E0 350 RSB ;
```

```
01E1 352      .SBTTL DEALLOCATE GOTO CONTROL BLOCK
01E1 353      :+
01E1 354      : DCL$DEALGOTO - DEALLOCATE GOTO CONTROL BLOCK
01E1 355      :
01E1 356      : THIS ROUTINE IS CALLED TO DEALLOCATE AN OUTSTANDING GOTO CONTROL
01E1 357      : BLOCK WHEN IT IS SATISFIED OR AN END OF FILE IS REACHED WITHOUT
01E1 358      : FINDING THE LABEL.
01E1 359      : -
01E1 360      :
01E1 361      DCL$DEALGOTO::
50 60 AB D0 01E1 362      MOVL      PRC_L_SYMBOL(R11),R0      : ADDRESS OF GOTO CONTROL BLOCK
51 60 9A 01E5 363      MOVZBL    (R0),R1      : GET LENGTH AND POINT AT START OF BLOCK
    51 D6 01E8 364      INCL      R1      : INCLUDE LABEL LENGTH BYTE
    FE13' 30 01EA 365      BSBW     DCL$DEADYNMEM      : DEALLOCATE THE BLOCK
    60 AB D4 01ED 366      CLRL     PRC_L_SYMBOL(R11)      : CLEAR ADDRESS OF GOTO CONTROL BLOCK
    05 01F0 367      RSB
    01F1 368
    01F1 369      .END
```

GOTO  
Symbol table

- GOTO COMMAND EXECUTION

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```

$$TMP1      = 00000001
$$TMP2      = 00000067
CLIS_NORMAL = 00030001
CLIS_SYMOVF  = 00038138
CLIS_USGOTO  = 00038148
DCL$ALLDYNMEM ***** X 02
DCL$ALLOCSYM ***** X 02
DCL$ALLOC LABEL 000001BF RG 02
DCL$DEADYNMEM ***** X 02
DCL$DEALGOTO 000001E1 RG 02
DCL$DISABLE ***** X 02
DCL$GETDVAL ***** X 02
DCL$GOTO 00000018 RG 02
DCL$INPUT ***** X 02
DCL$RESTART ***** X 02
DCL$SEARCHT ***** X 02
DEV$V_RND = 0000001C
FLUSH 00000159 R 02
PRC_B_CONTINUE 000000F3
PRC_B_DEFRADIX 000000AE
PRC_B_EXMDEPMOD 000000AD
PRC_B_EXMDEPWID 000000AC
PRC_B_EXONLYL 0000012D
PRC_B_FLAGS2 000000AF
PRC_B_IMGFLAG 00000078
PRC_B_OUTFLAGS 0000012C
PRC_B_PROMPTLEN 000000F0
PRC_C_LENGTH 00000534
PRC_G_COMMANDS 00000133
PRC_G_PROMPT 000000F4
PRC_K_LENGTH 00000534
PRC_L_CURRKEY 00000048
PRC_L_EXMDEPADR 000000A8
PRC_L_EXTARG 00000094
PRC_L_EXTBLK 0000008C
PRC_L_EXTCOD 0000009C
PRC_L_EXTHND 00000090
PRC_L_EXTPRM 00000098
PRC_L_IDFLNK 000000BC
PRC_L_IMGACTSTS 00000080
PRC_L_INDCLOCK 0000007C
PRC_L_INDEPTH 0000005C
PRC_L_INDFAB 0000001C
PRC_L_INDINPRAB 00000014
PRC_L_INDOUTRAB 00000018
PRC_L_INPRAB 00000008
PRC_L_LASTKEY 0000004C
PRC_L_LSTSTATUS 000000B0
PRC_L_ONCTLY 000000B8
PRC_L_ONERROR 0000006C
PRC_L_OUTOFBAND 000000B4
PRC_L_OUTRAB 0000000C
PRC_L_OUTRABCTX 00000118
PRC_L_PPFLIST 00000070
PRC_L_RECALLPTR 0000012F
PRC_L_RESTART 00000058
PRC_L_SAVAP 00000000

```

```

PRC_L_SAVFP 00000004
PRC_L_SEVERITY 00000050
PRC_L_SPWN 000000C0
PRC_L_STACKLM 000000A4
PRC_L_STACKPT 000000A0
PRC_L_STATUS 00000054
PRC_L_STS 00000084
PRC_L_STV 00000088
PRC_L_SYMBOL 00000060
PRC_L_TMBX 00000074
PRC_L_TRMLIST 00000010
PRC_M_GOTO = 00000010
PRC_M_IND = 00000020
PRC_Q_ALLOCREG 00000020
PRC_Q_COMMAND 000000E0
PRC_Q_FLUSHTIME C00000D0
PRC_Q_GLOBAL 00000028
PRC_Q_IMAGENAME 000000D8
PRC_Q_KEYPAD 00000040
PRC_Q_LABEL 00000030
PRC_Q_LOCAL 00000038
PRC_Q_SAVEPRIV 000000E8
PRC_T_OUTDVI 0000011C
PRC_V_GOTO = 00000004
PRC_W_ASTIOSB 000000C6
PRC_W_ASTRETN 000000C8
PRC_W_ASTSTATUS 000000C4
PRC_W_ATTMBX 0000007A
PRC_W_FLAGS 00000068
PRC_W_INPCHAN 00000064
PRC_W_ONLEVEL 0000006A
PRC_W_OUTIFI 00000114
PRC_W_OUTISI 00000116
PRC_W_OUTMBXCHN 000000CA
PRC_W_OUTMBXREF 000000CE
PRC_W_OUTMBXSIZ 000000CC
PRC_W_PMPCTRL 000000F1
PRC_W_WAITIOSB 00000066
RAB$B_RAC = 0000001E
RAB$C_RFA = 00000002
RAB$C_SEQ = 00000000
RAB$L_CTX = 00000018
RAB$W_RFA = 00000010
ST$M_INHIB_MSG = 10000000
SYM_B_FLAGS 0000000B
SYM_B_NONUNIQUE 0000000B
SYM_B_TYPE 0000000A
SYM_K_LABEL = 00000003
SYM_L_BL 00000004
SYM_L_FL 00000000
SYM_T_SYMBOL 0000000C
SYM_W_SIZE 00000008
SY$FIND ***** GX 02
TERM 00000000 R 02
TERMEND 00000018 R 02
WRK_B_CMDOPT FFFFFFFC3
WRK_B_MAXPARM FFFFFFFD0

```

GOTO  
Symbol table

- GOTO COMMAND EXECUTION

F 8

15-SEP-1984 23:49:46 VAX/VMS Macro V04-00  
4-SEP-1984 23:40:47 [DCL.SRC]GOTO.MAR;1

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|                 |            |
|-----------------|------------|
| WRK_B_MINPARM   | FFFFFFFFD1 |
| WRK_B_PARMCNT   | FFFFFFFFCE |
| WRK_B_PARMSUM   | FFFFFFFFCF |
| WRK_B_RECALLCNT | FFFFFFFFC5 |
| WRK_B_VALLEV    | FFFFFFFFC4 |
| WRK_B_VERBTYP   | FFFFFFFFC2 |
| WRK_C_LENGTH    | FFFFFF486  |
| WRK_G_BUFFER    | FFFFFF492  |
| WRK_G_INPBUF    | FFFFFF896  |
| WRK_G_RESULT    | FFFFFF9B6  |
| WRK_K_LENGTH    | FFFFFF486  |
| WRK_L_CHARPTR   | FFFFFF48E  |
| WRK_L_DISALLOW  | FFFFFFE6   |
| WRK_L_ERRORRTN  | FFFFFF9AE  |
| WRK_L_EXPANDPTR | FFFFFF486  |
| WRK_L_IMAGE     | FFFFFFE2   |
| WRK_L_MARKPTR   | FFFFFF48A  |
| WRK_L_PAROUT    | FFFFFFD2   |
| WRK_L_PMPTADDR  | FFFFFF9A2  |
| WRK_L_PROMPTRTN | FFFFFF9A6  |
| WRK_L_PROPTR    | FFFFFFC6   |
| WRK_L_QUABLK    | FFFFFFCA   |
| WRK_L_READRTN   | FFFFFF9AA  |
| WRK_L_RECALLPTR | FFFFFFEA   |
| WRK_L_RSLEND    | FFFFFFB6   |
| WRK_L_RSLNXT    | FFFFFFBA   |
| WRK_L_SAVAP     | FFFFFFF8   |
| WRK_L_SAVFP     | FFFFFFFC   |
| WRK_L_SAVSP     | FFFFFFF4   |
| WRK_L_SIGNALRTN | FFFFFFD6   |
| WRK_L_SPECRTN   | FFFFFF9B2  |
| WRK_L_TAB_VEC   | FFFFFFDE   |
| WRK_L_VERB      | FFFFFFBE   |
| WRK_V_NOSTAT    | = 00000008 |
| WRK_W_FLAGS     | FFFFFFF0   |
| WRK_W_FLAGS2    | FFFFFFF2   |
| WRK_W_IMGCHAN   | FFFFFFEE   |
| WRK_W_PMPTLEN   | FFFFFF99E  |
| _\$\$           | = 000000EF |

-----  
! Psect synopsis !  
-----

| PSECT name | Allocation       | PSECT No. | Attributes |     |     |     |     |       |       |      |       |       |      |  |  |  |  |
|------------|------------------|-----------|------------|-----|-----|-----|-----|-------|-------|------|-------|-------|------|--|--|--|--|
| . ABS .    | 00000000 ( 0.)   | 00 ( 0.)  | NOPIC      | USR | CON | ABS | LCL | NOSHR | NOEXE | NORD | NOWRT | NOVEC | BYTE |  |  |  |  |
| \$AB\$\$   | FFFFFFFC ( 0.)   | 01 ( 1.)  | NOPIC      | USR | CON | ABS | LCL | NOSHR | EXE   | RD   | WRT   | NOVEC | BYTE |  |  |  |  |
| DCL\$ZCODE | 000001F1 ( 497.) | 02 ( 2.)  | NOPIC      | USR | CON | REL | LCL | NOSHR | EXE   | RD   | NOWRT | NOVEC | BYTE |  |  |  |  |

+-----+  
! Performance indicators !  
+-----+

| Phase                  | Page faults | CPU Time    | Elapsed Time |
|------------------------|-------------|-------------|--------------|
| -----                  | -----       | -----       | -----        |
| Initialization         | 10          | 00:00:00.07 | 00:00:00.81  |
| Command processing     | 81          | 00:00:00.67 | 00:00:05.65  |
| Pass 1                 | 230         | 00:00:07.85 | 00:00:23.49  |
| Symbol table sort      | 0           | 00:00:00.83 | 00:00:02.48  |
| Pass 2                 | 65          | 00:00:01.48 | 00:00:05.15  |
| Symbol table output    | 18          | 00:00:00.14 | 00:00:00.32  |
| Psect synopsis output  | 1           | 00:00:00.02 | 00:00:00.02  |
| Cross-reference output | 0           | 00:00:00.00 | 00:00:00.00  |
| Assembler run totals   | 405         | 00:00:11.07 | 00:00:37.93  |

The working set limit was 1200 pages.

39235 bytes (77 pages) of virtual memory were used to buffer the intermediate code.

There were 40 pages of symbol table space allocated to hold 661 non-local and 23 local symbols.

369 source lines were read in Pass 1, producing 14 object records in Pass 2.

37 pages of virtual memory were used to define 22 macros.

+-----+  
! Macro library statistics !  
+-----+

| Macro library name                   | Macros defined |
|--------------------------------------|----------------|
| -----                                | -----          |
| \$255\$DUA28:[SYSLIB]SYSBLDMLB.MLB;1 | 0              |
| \$255\$DUA28:[DCL.OBJ]DCL.MLB;1      | 8              |
| \$255\$DUA28:[SYS.OBJ]LIB.MLB;1      | 0              |
| \$255\$DUA28:[SYSLIB]STARLET.MLB;2   | 8              |
| TOTALS (all libraries)               | 16             |

839 GETS were required to define 16 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LISS:GOTO/OBJ=OBJ\$:GOTO MSRC\$:GOTO/UPDATE=(ENH\$:GOTO)+EXECML\$/LIB+LIB\$:DCL/LIB+SYSS\$LIBRARY:SYSBLDMLB/LIB

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