

[illegible]

```

LL          IIIIII          SSSSSSSS
LL          IIIIII          SSSSSSSS
LL          II             SS
LL          II             SS
LL          II             SS
LL          II             SS
LL          II             SSSSSS
LL          II             SSSSSS
LL          II             SS
LL          II             SS
LL          II             SS
LL          II             SS
LLLLLLLLLLLL IIIIII          SSSSSSSS
LLLLLLLLLLLL IIIIII          SSSSSSSS

```



```
0000 1 .TITLE SHOWTERM - SHOW CHARACTERISTICS OF A TERMINAL
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
0000 29 ++
0000 30 FACILITY: CLI UTILITY "SHOW"
0000 31
0000 32 ABSTRACT: SHOW THE CHARACTERISTICS OF A TERMINAL
0000 33
0000 34 AUTHOR: R.HEINEN 21-NOV-1977
0000 35
0000 36 MODIFIED BY:
0000 37
0000 38 V03-017 EMB0107 Ellen M. Batbouta 11-Jul-1984
0000 39 Eliminate displaying the holdscreen characteristic since
0000 40 it is no longer supported.
0000 41
0000 42 V03-016 JRL0004 John R. Lawson, Jr. 19-Jun-1984 11:56
0000 43 Eliminate external references to SMG (shareable image) to
0000 44 speed up image initialization; link to SMG only when the
0000 45 package is required.
0000 46
0000 47 V03-015 EMD0096 Ellen M. Dusseault 02-May-1984
0000 48 Display the system password, syspwd, characteristic for
0000 49 terminals.
0000 50
0000 51 V03-014 MHB0128 Mark Bramhall 29-Mar-1984
0000 52 Display username on second line if not same as process name.
0000 53 Fix up spooled device display.
0000 54
0000 55 V03-013 MIR0350 Michael I. Rosenblum 20-Mar-1984
0000 56 If a terminal is a physical terminal connected to a VT
0000 57 show the backward translation also. Add BTS terminals
```



```
0000 58 : To the display.
0000 59 :
0000 60 : V03-012 PLL0002 Pamela Levesque 07-Mar-1984
0000 61 : If the type number is in the foreign range, search
0000 62 : termtable for a definition.
0000 63 :
0000 64 : V03-011 MHB0102 Mark Bramhall 29-Feb-1984
0000 65 : Fix up the physical terminal device name display.
0000 66 :
0000 67 : V03-010 EMD0054 Ellen M. Dusseault 28-Feb-1984
0000 68 : Display new device name, PRO_SERIES, when appropriate
0000 69 : and the status of the new terminal characteristic, DEC_CRT2.
0000 70 :
0000 71 : V03-009 MMD0233 Meg Dumont, 4-Feb-1984 14:26
0000 72 : Add a test to see if the terminal is running as an asynch
0000 73 : ddcmp line and if it is do not try to show the characteristics.
0000 74 :
0000 75 : V03-008 MIR0300 Michael I. Rosenblum 03-Feb-1984
0000 76 : Add code to show physical terminal on disconnected terminals
0000 77 : and to indicate that a terminal is disconnected.
0000 78 :
0000 79 : V03-007 MIR0071 Michael I. Rosenblum 22-Jul-1983
0000 80 : Add display for OVERSTRIKE MODE, DISMISS PARITY, AND
0000 81 : PASTHRU MODE.
0000 82 :
0000 83 : V03-006 MIR2035 Michael I. Rosenblum 13-May-1983
0000 84 : Fix word offsets.
0000 85 :
0000 86 : V03-005 MIR1035 Michael I. Rosenblum 09-Apr-1983
0000 87 : increase size of terminal table to allow VT200 to fit
0000 88 :
0000 89 : V03-004 MIR0035 Michael I. Rosenblum 27-Apr-1983
0000 90 : Add support for new device characteristics.
0000 91 : and VT200 series terminals.
0000 92 :
0000 93 : V03-003 GAS0099 Gerry Smith 7-Jan-1983
0000 94 : Modify to run under the new SHOW.
0000 95 :
0000 96 : V03-002 GAS0091 Gerry Smith 19-Oct-1982
0000 97 : Change input request for new CLD syntax.
0000 98 :
0000 99 : V03-001 MIR0093 Michael I Rosenblum 2-Jul-1982
0000 100 : Enhance show term to use the new $GETDVIW fix bug
0000 101 : that shows the device spooled to as being the terminal
0000 102 : itself rather than the appropriate disk.
0000 103 :
0000 104 : V03-011 MIR0091 Michael I Rosenblum 23-Feb-1981
0000 105 : Show term on a spooled terminal without privs would
0000 106 : cause the QIO sensemode to return a nopriv error with
0000 107 : the side affect of clearing out the SENSEMODE buffer,
0000 108 : hence giving erroneous information.
0000 109 :
0000 110 : V03-010 MIR0072 Michael I Rosenblum 14-Jan-1981
0000 111 : Change case of some of the qualifiers.
0000 112 :
0000 113 : V03-009 MIR0070 Michael I Rosenblum 21-Dec-1981
0000 114 : Replaced GETDEV with GETDVI.
```


0000	115	:			
0000	116	:	V03-008	MIR0056	Michael I Rosenblum
0000	117	:		Added DECCRT, EDIT and SETSPEED.	9-Dec-1981
0000	118	:			
0000	119	:	V03-007	MIR0045	Michael I Rosenblum
0000	120	:		Add support for VK100 and the SUBSET bit.	29-Oct-1981
0000	121	:			
0000	122	:	V03-006	MIR0034	Michael I Rosenblum
0000	123	:		Fix bug in support of GETDEV feature to get the second device	10-Aug-1981
0000	124	:		dependent word.	
0000	125	:			
0000	126	:	V03-005	MIR0032	Michael I Rosenblum
0000	127	:		Fixed assembly error on local symbol.	31-Aug-1981
0000	128	:			
0000	129	:	V03-004	MIR0017	Michael I Rosenblum
0000	130	:		Added support for the new terminal driver features, Corrected	17-Aug-1981
0000	131	:		error in split speed code	
0000	132	:			
0000	133	:	V03-003	MIR0005	Michael I Rosenblum
0000	134	:		Fixed blank owner name now prints "not available"	31-July-1981
0000	135	:			
0000	136	:	V03-002	MIR0001	Michael I Rosenblum
0000	137	:		Reformatting of the output, activated split speed code	30-July-1981
0000	138	:		Added code to show username if different from process ID	
0000	139	:			
0000	140	:	V03-001	SBL3001	Steven B. Lionel,
0000	141	:		Remove trailing comma from HALFDUP/FULLDUP.	26-June-1980
0000	142	:--			


```
0000 144 :  
0000 145 : MACRO TO EASE CREATION OF NEW TERMINAL TYPES  
0000 146 :  
0000 147 : .MACRO CRETYPE TYPE,Name  
0000 148 $$=  
0000 149 .if blank name  
0000 150 .ASCIC /TYPE/  
0000 151 .iff  
0000 152 .ascic /name/  
0000 153 .endc  
0000 154 $$$=  
0000 155 .=TYPE_NAME+<TTS 'TYPE*4>  
0000 156 .IF GE .-END NAME  
0000 157 .ERROR TTS_'TYPE ; TERMINAL TTS_'TYPE DOES NOT FIT IN TYPE_NAME  
0000 158 .IFF  
0000 159 .ADDRESS $$  
0000 160 .ENDC  
0000 161 .=$$$  
0000 162 : .ENDM  
0000 163 :  
0000 164 : MACRO TO HANDLE BIT DEFINITIONS  
0000 165 : FOR THE SECOND DEVICE DEPENDENT LONGWORD  
0000 166 :  
0000 167 : .MACRO CREBIT2 BIT,ON_STR,OFF_STR  
0000 168 SYMCRE TT2$V_'BIT,<ON_STR>,<OFF_STR>,POS2,NEG2  
0000 169 .ENDM  
0000 170 :  
0000 171 : MACRO TO HANDLE SYMBOL DEFINITIONS  
0000 172 :  
0000 173 : .MACRO SYMCRE BIT,ON_STR,OFF_STR,ON_BASE_ADR,OFF_BASE_ADR  
0000 174 $$_ON=  
0000 175 .ASCIC /ON_STR/  
0000 176 $$_OFF=  
0000 177 .ASCIC /OFF_STR/  
0000 178 $$$=  
0000 179 .=ON_BASE_ADR+<'BIT*4> ;GET TO THE RIGHT PLACE (LONG WORD TABLE  
0000 180 .ADDRESS $$_ON  
0000 181 .=OFF_BASE_ADR+<'BIT*4> ;AND DO THE SAME FOR THE OFF ADDRESS  
0000 182 .ADDRESS $$_OFF  
0000 183 .=$$$  
0000 184 : .ENDM  
0000 185 :  
0000 186 : MACRO TO CREATE DEVICE INFORMATION ITEMS  
0000 187 :  
0000 188 : .MACRO $GDVITM LEN,ITEM,ADR,LEN_ADR=0  
0000 189 .WORD LEN  
0000 190 .WORD DVIS_'ITEM  
0000 191 .LONG ADR  
0000 192 .LONG LEN_ADR  
0000 193 .ENDM  
0000 194 :  
0000 195 : EXTERNAL SYMBOLS  
0000 196 :  
0000 197 $DEVDEF ; DEFINE DEVICE CHARACTERISTICS  
0000 198 $DSCDEF ; DEFINE DESCRIPTOR DEFINITIONS  
0000 199 $DVIDEF ; DEFINE DEVICE INFO BLOCK  
0000 200 $JPIDEF ; DEFINE JPI VALUES
```



```
0000 201      $TDEF                      ; DEFINE TERMINAL CHARACTERISTICS
0000 202      $T2DEF                     ; DEFINE SECOND TERMINAL CHAR LONGWORD
0000 203      ;
0000 204      ; LOCAL STORAGE
0000 205      ;
0000 206      ;
00000000 207      .PSECT SHOW$RWDATA,NOEXE, LONG
0000 208      ;
0000 209      ; STORAGE
0000 210      ;
0000 211      ;
00000001 0000 212 SHOW$SL_STATUS: .LONG 1      ; INTERNAL STATUS
00000000 0004 213 CHAN: .LONG 0              ; TERMINAL CHANNEL NUMBER
00000000 0008 214 BITS: .LONG 0              ; STORAGE FOR CLI CALL BACK
00000000 000C 215 IOSB: .LONG 0,0            ; IOSB FOR TERMINAL GET CHARACTERISTICS
00000000 0014 216 UTIL_DESC: .LONG 0,0        ; UTILITY DESC
001C 217      ;
001C 218 TER_INFO:
001C 219      ;
00 001C 220 TER$B_DEVCLASS: .BYTE 0           ; THE TERMINAL CLASS
00 001D 221 TER$B_DEVTYPE: .BYTE 0           ; THE TERMINAL TYPE
0000 001E 222 TER$W_DEVBUFSIZ: .WORD 0        ; THE WIDTH
0000 0020 223 TER$L_DEVDEP: .WORD 0          ; THE FIRST DEVICE DEPENDENT
00 0022 224      .BYTE 0
00 0023 225 TER$B_LENGTH: .BYTE 0            ; TERMINAL LENGTH
00000000 0024 226 TER$L_DEVDEP2: .LONG 0      ; THE SECOND DEVICE DEPENDENT WORD
0028 227      ;
00000000 0028 228 TER$L_PID: .LONG 0          ; THE OWNER PID
002C 229      ;
00000000 002C 230 TER$L_DEVCHAR: .LONG 0      ; THE DEVICE CHARACTERISTICS
00000000 0030 231 TER$L_DEVCHAR2: .LONG 0     ; THE DEVICE CHARACTERISTICS #2
0034 232      ;
00000000 0034 233 TER$L_PHYDEVLN: .LONG 0     ; Length of physical device name
00 0038 234 TER$B_PHYDEVCT: .BYTE 0           ; Count in byte size
00000048 0039 235 TER$_PHYDEV: .BLKB 15      ; Maximum of 15 bytes
0048 236      ;
00000000 0048 237 TER$L_DEVNAMLN: .LONG 0     ; THE LENGTH OF THE DEVICE NAME
00 004C 238 TER$B_DEVNAMCT: .BYTE 0           ; COUNT IN BYTE SIZE
0000005C 004D 239 TER$_DEVNAM: .BLKB 15      ; MAXIMUM OF 15 BYTES
005C 240      ;
00000000 005C 241 TMP$SL_DEVCLASS: .LONG 0    ;
00000000 0060 242 TMP$SL_DEVTYPE: .LONG 0    ;
00000000 0064 243 TMP$SL_DEVBUFSIZ: .LONG 0   ;
0068 244      ;
0068 245 TMPTRM_INFO:
00000070 0068 246      .BLKB 1                ; PLACE TO SAVE THE TERMINAL INFO
0070 247 TMPTRM$SL_DEVDEP2:
00000074 0070 248      .BLKB 1                ;...
0074 249      ;
0000007D'010E000F 0074 250 TMP_DEVNAM: .LONG <DSC$K_CLASS_S @ <DSC$B_CLASS * 8>>!--
007C 251      <DSC$K_DTYPE-T @ <DSC$B_DTYPE * 8>>!--
007C 252      15, TMP_TYPE_NAME
00 007C 253 TMP_TYPE_CT: .BYTE 0              ; COUNTED STRING FOR TERMTABLE TYPE NAME
0000008C 007D 254 TMP_TYPE_NAME: .BLKB 15
00000000 008C 255 TERM_TABLE_ADDR: .LONG 0    ; ADDRESS OF DEFINITION FROM TERMTABLE
0090 256      ;
0090 257      ;
```



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0090 258 : Storage for post-activation linkage to SMG (shareable image)
0090 259 :
0090 260
00000094 0090 261 SMG$INIT_TERM_TABLE_BY_TYPE: .BLKL 1 ; Addresses of routines
00000098 0094 262 SMG$DEL_TERM_TABLE: .BLKL 1
0098 263
52 48 53 47 4D 53 000000A0'010E0000' 0098 264 $SMG$SHR: .ASCID /SMG$SHR/ ; Name of shareable image
00A6 265
4E 49 24 47 4D 53 000000AE'010E0000' 00A6 266 $SMG$INIT_TERM_TABLE_BY_TYPE: .ASCID /SMG$INIT_TERM_TABLE_BY_TYPE/ ; Names of r
4C 42 41 54 5F 4D 52 45 54 5F 54 49 00B4
45 50 59 54 5F 59 42 5F 45 00C0
45 44 24 47 4D 53 000000D1'010E0000' 00C9 267 $SMG$DEL_TERM_TABLE: .ASCID /SMG$DEL_TERM_TABLE/
45 4C 42 41 54 5F 4D 52 45 54 5F 4C 00D7
00E3 268
00E3 269 :
00E3 270 : MAIN DEVICE CHARACTERISTICS
00E3 271 :
00E3 272 GETDVI_INFO: $GDVITM 4,DEVCHAR,TERSL_DEVCHAR
00EF 273 $GDVITM 4,DEVCHAR2,TERSL_DEVCHAR2
00FB 274 $GDVITM 4,DEVCLASS,TMPSL_DEVCLASS
0107 275 $GDVITM 4,DEVTYPE,TMPSL_DEVTYPE
0113 276 $GDVITM 4,DEVBUFSIZ,TMPSL_DEVBUFSIZ
011F 277 $GDVITM 4,DEVDEPEND,TERSL_DEVDEP
012B 278 $GDVITM 4,DEVDEPEND2,TERSL_DEVDEP2
0137 279 $GDVITM 4,PID,TERSL_PID
0143 280 $GDVITM 15,TT_PHYDEVNAM,TERSL_PHYDEV,TERSL_PHYDEVLN
014F 281 SPLDVI_INFO: $GDVITM 15,DEVNAM,TERSL_DEVNAM,TERSL_DEVNAMLN
00000000 015B 282 .LONG 0
015F 283 :
015F 284 : SECONDARY COPY OF PRIMARY SPECS
015F 285 :
015F 286 SECDVI_INFO: $GDVITM 4,DEVCHAR!DVISC_SECONDARY,TERSL_DEVCHAR
016B 287 $GDVITM 4,DEVCHAR2!DVISC_SECONDARY,TERSL_DEVCHAR2
0177 288 $GDVITM 4,DEVCLASS!DVISC_SECONDARY,TMPSL_DEVCLASS
0183 289 $GDVITM 4,DEVTYPE!DVISC_SECONDARY,TMPSL_DEVTYPE
018F 290 $GDVITM 4,DEVBUFSIZ!DVISC_SECONDARY,TMPSL_DEVBUFSIZ
019B 291 $GDVITM 4,DEVDEPEND!DVISC_SECONDARY,TERSL_DEVDEP
01A7 292 $GDVITM 4,DEVDEPEND2!DVISC_SECONDARY,TERSL_DEVDEP2
01B3 293 $GDVITM 4,PID!DVISC_SECONDARY,TERSL_PID
01BF 294 $GDVITM 15,TT_PHYDEVNAM!DVISC_SECONDARY,TERSL_PHYDEV,TERSL_PHYDEVLN
00000000 01CB 295 $GDVITM 15,DEVNAM!DVISC_SECONDARY,TERSL_DEVNAM,TERSL_DEVNAMLN
01D7 296 .LONG 0
01DB 297
00000004 01DB 298 NUMPERLINE==4
01DB 299
01DB 300 CHAR_LIST: .REPT 100
01DB 301 .LONG NULL_STRING
0000036B' 01DB 302 .ENDR
00 036B 303 NULL_STRING: .BYTE 0
036C 304 :
036C 305 : CLI REQUEST DESCRIPTORS
036C 306 :
00000000 020E0000 036C 307 TERM_DESC: .LONG <DSC$K_CLASS_D @ <DSC$B_CLASS * 8>>!--
0374 308 <DSC$K_DTYPE_T @ <DSC$B_DTYPE * 8>>!--
0374 309 0,0
45 43 49 56 45 44 0000037C'010E0000' 0374 310 TERM_RQST: .ASCID \DEVICE\
4E 41 4D 52 45 50 0000038A'010E0000' 0382 311 PERM_RQST: .ASCID \PERMANENT\
```


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312 :
313 : CONTROL STRINGS FOR OUTPUT
314 :
315 SHOW$_TERM_L1: .ASCID 'Terminal: !10AC Device_Type: !12AC Owner: !AF'

316 SHOW$_TERM_L1A: .ASCID '!AC!AC'
317 SHOW$_TERM_L1B: .ASCID '!46<!AC!AC!>Username: !AS'

318 SHOW$_TERM_L2: .ASCID '!/ Input: !5UW LFfill:!3UB Width:!4UW Par

319 SHOW$_TERM_L3: .ASCID ' Output: !5UW CRfill:!3UB Page: !3UB !AC'

320 SHOW$_TERM_L4: .ASCID '!/Terminal Characteristics:'

321 SHOW$_TERM_L5: .ASCID ' !#(19AC)!AC'

322 SHOW$_TTLP_SPL: .ASCID '!/Device spooled to !AD'

323 :
324 : TYPE NAMES
325 :
326 TYPE_NAME:
327 .REPEAT 128
328 .ADDRESS UNK
329 .ENDR
330 END_NAME:
331 UNK: .ascic /Unknown/

332 cretype LA36
333 cretype LA120
334 cretype LA34
335 cretype LA38
336 cretype LA12
337 cretype LA24
338 cretype LA100
339 cretype LQP02
340 cretype VT55
341 cretype VT52
342 cretype VT05
343 cretype VT100
344 cretype VT101

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072C 345 cretype VT102
0732 346 cretype VT105
0738 347 cretype VT125
073E 348 cretype VT131
0744 349 cretype VT132
074A 350 cretype VT173
0750 351 cretype VK100
0756 352 cretype VT200 Series
0763 353 cretype PRO Series
076E 354 cretype tq Bts,BTS
0772 355 cretype FT1
0776 356 cretype FT2
077A 357 cretype FT3
077E 358 cretype FT4
0782 359 cretype FT5
0786 360 cretype FT6
078A 361 cretype FT7
078E 362 cretype FT8
0792 363
0792 364 : POSITIVE CHARACTERISTIC STRINGS
0792 365 :
0792 366 POSITIVE_NAME:
0792 367 .LONG 1$,2$,3$,4$,5$,6$,0,7$,8$,9$,0,0,10$,11$,0,13$,0,14$,15$,16$,17$,18$

00000807'000007FA'000007F2'000007EA' 0792
0000081E'00000000 00000817'0000080E' 07A2
00000000 00000000 0000082C'00000828' 07B2
0000083E'00000000 00000837'00000831' 07C2
0000085D'00000854'00000847'00000000 07D2
0000086A'00000862' 07E2
6C 6C 61 73 73 61 50 00' 07EA 368 1$: .ASCIC /Passall/
07 07EA
6F 68 63 45 20 6F 4E 00' 07F2 369 2$: .ASCIC /No Echo/
07 07F2
61 65 68 61 65 70 79 54 20 6F 4E 00' 07FA 370 3$: .ASCIC /No Typeahead/
64 0806
0C 07FA
65 70 61 63 73 45 00' 0807 371 4$: .ASCIC /Escape/
06 0807
63 6E 79 73 74 73 6F 48 00' 080E 372 5$: .ASCIC /Hostsync/
08 080E
63 6E 79 73 54 54 00' 0817 373 6$: .ASCIC /Ttsync/
06 0817
65 73 61 63 72 65 77 6F 4C 00' 081E 374 7$: .ASCIC /Lowercase/
09 081E
62 61 54 00' 0828 375 8$: .ASCIC /Tab/
03 0828
70 61 72 57 00' 082C 376 9$: .ASCIC /Wrap/
04 082C
65 70 6F 63 53 00' 0831 377 10$: .ASCIC /Scope/
05 0831
65 74 6F 6D 65 52 00' 0837 378 11$: .ASCIC /Remote/
06 0837
74 69 62 74 68 67 69 45 00' 083E 379 13$: .ASCIC /Eightbit/
08 083E
73 61 63 64 61 6F 72 42 20 6F 4E 00' 0847 380 14$: .ASCIC /No Broadcast/
74 0853
0C 0847
63 6E 79 73 64 61 65 52 00' 0854 381 15$: .ASCIC /Readsync/
```


- SHOW CHARACTERISTICS OF A TERMINAL M 16

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00C30A14'00C30A10'00000000 00000A02' 097B
00,00000 00000000 00000000 00000A1E' 098B
00000000 00000000 00000000 00000000 099B
00000000 00000000 00000000 00000000 09AB
00000000 00000000 00000000 00000000 09BB
00000A45'00000A3A'00000A34'00000A2B' 09CB
00000A66'00000A5E'00000A54' 09DB
6F 68 63 65 5F 6C 61 63 6F 4C 00' 09E7 413 0$: .ASCIC /Local_echo/
0A 09E7
64 75 61 62 6F 74 75 41 00' 09F2 414 1$: .ascic /Autobaud/
08 09F2
70 75 67 6E 61 48 00' 09FB 415 2$: .ascic /Hangup/
06 09FB
78 62 6D 74 73 63 64 72 42 00' 0A02 416 4$: .ascic /Brdcstmbx/
09 0A02
4E 4F 58 00' 0A0C 417 5$: .ascic /XON/
03 0A0C
41 4D 44 00' 0A10 418 6$: .ascic /DMA/
03 0A10
64 68 61 65 70 79 74 6C 41 00' 0A14 419 7$: .ascic /Altypeahd/
09 0A14
65 65 70 73 5F 74 65 53 20 6F 4E 00' 0A1E 420 8$: .ascic /No Set_speed/
64 0A2A
0C 0A1E
0A2B 421
54 52 43 5F 49 53 4E 41 00' 0A2B 422 24$: .ascic /ANSI_CRT/
08 0A2B
73 69 67 65 52 00' 0A34 423 25$: .ascic /Regis/
05 0A34
65 64 6F 6D 5F 6B 63 6F 6C 42 00' 0A3A 424 26$: .ascic /Block_mode/
0A 0A3A
69 76 5F 64 65 63 6E 61 76 64 41 00' 0A45 425 27$: .ascic /Advanced_video/
6F 65 64 0A51
0E 0A45
65 64 6F 6D 5F 74 69 64 45 00' 0A54 426 28$: .ascic /Edit_mode/
09 0A54
54 52 43 5F 43 45 44 00' 0A5E 427 29$: .ascic /DEC_CRT/
07 0A5E
32 54 52 43 5F 43 45 44 00' 0A66 428 30$: .ascic /DEC_CRT2/
08 0A66
0A6F 429 :
0A6F 430 : Negative of the second devdependent longword
0A6F 431 :
0A6F 432 neg2:
433 .LONG 0$,1$,2$,0,4$,0,6$,7$,8$,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,24$,25$,26$,2
00000000 00000B05'00000AF9'00000AEB' 0A6F
00000B28'00000B21'00000000 00000B0F' 0A7F
00000000 00000000 00000000 00000B35' 0A8F
00000000 00000000 00000000 00000000 0A9F
00000000 00000000 00000000 00000000 0AAF
00000000 00000000 00000000 00000000 0ABF
00000B62'00000B54'00000B4B'00000B3F' 0ACF
00000B8C'00000B81'00000B74' 0ADF
0000001E 0AEB
63 65 5F 6C 61 63 6F 4C 20 6F 4E 00' 0AEB 434 NUMCHRS2=<<.-NEG2>/4>-1
6F 38 0AF7
0D 0AEB
64 75 61 62 6F 74 75 41 20 6F 4E 00' 0AF9 435 0$: .ascic /No Local_echo/
436 1$: .ascic /No Autobaud/
```



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7D 75 67 6E 61 48 20 6F 4E 00' 0AF9
09 0B05 437 2$: .ascic /No Hangup/
0B0F 438
62 6D 74 73 63 64 72 42 20 6F 4E 00' 0B0F 439 4$: .ascic /No Brdcstmbx/
78 0B1B
0C 0B0F
46 46 4F 58 00' 0B1C 440 5$: .ascic /XOFF/
04 0B1C
41 4D 44 20 6F 4E 00' 0B21 441 6$: .ascic /No DMA/
06 0B21
68 61 65 70 79 74 6C 41 20 6F 4E 00' 0B28 442 7$: .ascic /No Altypeahd/
64 0B34
0C 0B28
64 65 65 70 73 5F 74 65 53 00' 0B35 443 8$: .ascic /Set_speed/
09 0B35
0B3F 444
54 52 43 5F 49 53 4E 41 20 6F 4E 00' 0B3F 445 24$: .ascic /No ANSI_RT/
0B 0B3F
73 69 67 65 52 20 6F 4E 00' 0B4B 446 25$: .ascic /No Regis/
08 0B4B
6F 6D 5F 6B 63 6F 6C 42 20 6F 4E 00' 0B54 447 26$: .ascic /No Block_mode/
65 64 0B60
0D 0B54
64 65 63 6E 61 76 64 41 20 6F 4E 00' 0B62 448 27$: .ascic /No Advanced_video/
6F 65 64 69 76 5F 0B6E
11 0B62
64 6F 6D 5F 74 69 64 45 20 6F 4E 00' 0B74 449 28$: .ascic /No Edit_mode/
65 0B80
0C 0B74
54 52 43 5F 43 45 44 20 5F 4E 00' 0B81 450 29$: .ascic /No DEC_CRT/
0A 0B81
32 54 52 43 5F 43 45 44 20 6F 4E 00' 0B8C 451 30$: .ascic /No DEC_CRT2/
0B 0B8C
0B98 452 crebit2 editing,<Line Editing>,<No Line Editing>
0BB5 453 crebit2 App keypad,<Application keypad>,<Numeric Keypad>
0BD7 454 CREBIT2 FALLBACK,<Fallback>,<No Fallback>
0BEC 455 CREBIT2 DISCONNECT,<Disconnect>,<No Disconnect>
0C05 456 CREBIT2 DIALUP,<Dialup>,<No Dialup>
0C16 457 CREBIT2 INSERT,<Insert editing>,<Overstrike editing>
0C38 458 CREBIT2 PRINTER,<Printer port>,<No Printer Port>
0C55 459 CREBIT2 SECURE,<Secure server>,<No Secure server>
0C74 460 CREBIT2 SIXEL,<SIXEL Graphics>,<No SIXEL Graphics>
0C95 461 CREBIT2 DRCS,<Soft Characters>,<No Soft Characters>
0CB8 462 crebit2 PASTHRU,<Pasthru>,<No Pasthru>
0CCB 463 CREBIT2 SYSPWD,<Syspassword>,<No Syspassword>
0CE6 464
0CE6 465 .noshow me
6E 65 76 45 00' 0CE6 466 EPAR: .ASCIC /Even/
04 0CE6
64 64 4F 00' 0CEB 467 OPAR: .ASCIC /Odd/
03 0CEB
65 6E 6F 4E 00' 0CEF 468 NOPAR: .ASCIC /None/
04 0CEF
012C 0096 0086 006E 004B 0032 0000 0CF4 469 SPEED: .WORD 0,50,75,110,134,150,300,600,1200,1800,2000,2400,3600,4800,-
0E10 0960 07D0 0708 04B0 0258 0D02
4800 2580 1C20 12C0 0D0E 470 7200,9600,19200
```



```
4F 43 24 53 59 53 00000D1E'010E0000' 0D16 471 SYS_COMMAND:
      44 4E 41 4D 4D 0D16 472 .ASCID /SYSS$COMMAND/
      0D24
      0D29 473 :
      0D29 474 : SPACE FOR PROCESS OWNER NAME AND GETJPI
      0D29 475 :
      00000014 0D29 476 OWNER_NAME: .LONG 20
      00000D31' 0D2D 477 .LONG 10$
      00000D45 0D31 478 10$: .BLKB 20
      00000014 0D45 479 USER_NAME: .LONG 20
      00000D4D' 0D49 480 .LONG 20$
      00000D61 0D4D 481 20$: .BLKB 20
      0014 0D61 482 JPI_ITMLST: .WORD 20
      031C 0D63 483 .WORD JPI$ PRCNAM
      00000D31' 0D65 484 .LONG OWNER_NAME+8
      00000D29' 0D69 485 .LONG OWNER_NAME
      0014 0D6D 486 .WORD 20
      0202 0D6F 487 .WORD JPI$ USERNAME
      00000D4D' 0D71 488 .LONG USER_NAME+8
      00000D45' 0D75 489 .LONG USER_NAME
      00000000 0D79 490 .LONG 0
      0D7D 491 :
      0D7D 492 : NO OWNER NAME
      0D7D 493 :
      00000008' 0D7D 494 NO_OWNER: .LONG 20$-10$
      00000D85' 0D81 495 .LONG 10$
      72 65 6E 77 4F 20 6F 4E 0D85 496 10$: .ASCII /No Owner/
      0D8D 497 20$:
      0000000D' 0D8D 498 NOT_AVAIL: .LONG 20$-10$
      00000D95' 0D91 499 .LONG 10$
      6C 62 61 6C 69 61 76 41 20 74 6F 4E 0D95 500 10$: .ASCII /Not Available/
      65 0DA1
      0000 0DA2 501 20$:
      0DA2 502 BLNK: .WORD 0
      65 74 20 6C 61 63 69 73 79 68 50 00' 0DA4 503 PHY_TERM: .ASCIC 'Physical terminal: '
      20 3A 6C 61 6E 69 6D 72 0DB0
      72 65 74 20 6C 61 75 74 72 69 56 00' 0DA4
      20 3A 6C 61 6E 69 6D 0DB8
      72 61 70 20 73 73 69 6D 73 69 44 00' 0DC4
      73 72 6F 72 72 65 20 79 74 69 0DB8
      15 0DCB 505 DISM: .ASCIC /Dismiss parity errors/
      6F 20 65 74 61 6E 69 6D 72 65 54 00' 0DD7
      72 72 65 20 79 74 69 72 61 70 20 6E 0DCB
      73 72 6F 0DE1 506 NODISM: .ASCIC /Terminate on parity errors/
      1A 0DE1
      65 74 63 65 6E 6E 6F 63 73 69 44 00' 0DFC 507 DISCON: .ASCIC /Disconnected/
      64 0E08
      0C 0DFC
      3E 65 74 61 76 69 72 50 3C 00' 0E09 508 PRNAME: .ASCIC /<Private>/
      09 0E09
```



```
00000000 510 .PSECT SHOW$CODE,NOWRT
0000 511 :++
0000 512 : SHOW$TERM - SHOW TERMINAL CHARACTERISTICS
0000 513 :
0000 514 : FUNCTIONAL DESCRIPTION:
0000 515 :
0000 516 : THIS ROUTINE SHOWS THE CHARACTERISTICS OF A SPECIFIED TERMINAL.
0000 517 : IT IS ENTERED AS A RESULT OF A DISPATCH FROM THE SHOW COMMAND PROCESSOR.
0000 518 :
0000 519 : INPUTS:
0000 520 :
0000 521 :     None
0000 522 :
0000 523 : OUTPUTS:
0000 524 :
0000 525 :     None.  If any error occurs, it will be signaled
0000 526 :--
0000 527 :
03FC 0000 528 .ENTRY SHOW$TERMINAL, ^M<R2,R3,R4,R5,R6,R7,R8,R9>
0002 529
0000036C'EF 7F 0002 530 PUSHAQ TERM_DESC ; GET VALUE DESCRIPTOR
00000374'EF 7F 0008 531 PUSHAQ TERM_RQST ; GET REQUEST DESCRIPTOR
00000000'GF 02 FB 000E 532 CALLS #2,G^CLISGET_VALUE ; REQUEST TERMINAL NAME
0B 50 E8 0015 533 BLBS R0,20$ ; IF LBS, GOT A NAME
0018 534 :
0018 535 : DEFAULT NAME IS 'SYS$COMMAND'
0018 536 :
0000036C'EF 00000D16'EF 7D 0018 537 MOVQ SYS_COMMAND, TERM_DESC ; Use 'SYS$COMMAND' as name
0023 538 :
0023 539 : GET DEVICE INFO IN CASE THE TERMINAL IS ASSIGNED TO SOMEONE ELSE
0023 540 :
0023 541 : THIS ALLOWS SOME INFORMATION TO BE PRINTED.
0023 542 :
56 0000036C'EF 7E 0023 543 20$: MOVAQ TERM_DESC, R6 ; GET ADDRESS OF TERMINAL DESC
00000000'EF 50 3C 002A 544 $GETDVIW S DEVMAM=(R6),ITMLST=SECDVI INFO
03 50 E8 0044 545 MOVZWL R0,SHOW$STATUS ; COPY CODE
0127 31 004B 546 BLBS R0,23$ ; BR IF ERROR - NO SUCH DEVICE
24 0000002C'EF 14 E1 004E 547 21$: BRW 40$
00000000'EF 50 3C 0073 550 23$: BBC #DEV$V_MBX,TER$ DEVCHAR,25$ ; CHECK IF MAILBOX
D1 50 E9 007A 551 $GETDVIW_S DEVMAM=(R6),ITMLST=GETDVI INFO; YES THEN GET
00000001C'EF 0000005C'EF F6 007D 552 : THE SECONDARY CHARACTERISTICS
0000001D'EF 00000060'EF F6 0088 553 MOVZWL R0,SHOW$STATUS ;GET A STATUS CODE
0000001E'EF 00000064'EF F7 0093 554 BLBC R0,21$ ;BAD SCEAN
0000004C'EF 00C00048'EF F6 009E 555 25$: CVTLB TMP$ DEVCLASS,TER$B DEVCLASS; CONVERT THE DEVICE CLASS
00000000'EF 0000'8F 3C 00A9 556 CVTLB TMP$ DEVTYPE,TER$B DEVTYPE; CONVERT THE DEVICE TYPE
94 0000002C'EF 02 E1 00B2 557 CVTLW TMP$ DEVBUFSIZ,TER$W DEVBUFSIZ; AND THE TERMINAL WIDTH
00000000'EF 0000'8F 3C 00BA 558 CVTLB TER$ DEVNAMLN,TER$B DEVNAMCT; MAKE A DEVICE NAME COUNTED STRING
83 0000002C'EF 0D E0 00C3 559 MOVZWL #$$$ IVDEVNAM,SHOW$ STATUS ; Assume device not terminal
00CB 560 BBC #DEV$V_TRM,TER$ DEVCHAR,21$ ; Error if not a terminal
00CB 561
00CB 562 MOVZWL #$$$ TERMNETDEV,SHOW$ STATUS ; Assume being used by network
00CB 563 BBS #DEV$V_NET,TER$ DEVCHAR,21$ ; Error if network usage
00CB 564
00CB 565 :
00CB 566 : TRY TO ASSIGN A CHANNEL TO THE TERMINAL - TO GET SPEED AND PARITY
```



```
00000068'EF 0000001C'EF 64 50 E9 00CB 567 :
00000070'EF 00000024'EF 7D 00DC 568 28$: $ASSIGN_S (R6),CHAN ; ASSIGN CHANNEL TO DEVICE
0000001C'EF 00000068'EF 0000001C'EF 7D 00DF 569 BLBC -R0,30$ ; IF LOW CLEAR THEN PRINT WHAT'S AVAIL
00000024'EF 00000070'EF 0000001C'EF DO 00EA 570 MOVQ TER INFO,TMPTRM INFO: SAVE THE RECIEVED INFO INCASE OF
00000024'EF 0000001C'EF 7C 00F5 571 MOVL TER$ DEVDEP2,TMPTRM$ DEVDEP2;
00000024'EF 00000024'EF D4 00FB 572 CLRQ TER INFO ;CLEAN THE INFO BLOCK OUT
0101 573 CLRL TER$ DEVDEP2 ;AND THE SECOND DEVICE DEPENDENT WORD
012A 574 $QIOW_S #1,CHAN,#IOS_SENSEMODE,IOSB,P1=TER INFO,P2=#12
012D 575 BLBS -R0,30$ ;NO ERROR THEN START THE NORMAL WORK
0000001C'EF 00000068'EF 7D 012D 576 MOVQ TMPTRM INFO,TER INFO: RESTORE THE TERMINAL INFORMATION
00000024'EF 00000070'EF DO 0138 577 MOVL TMPTRM$ DEVDEP2,TER$ DEVDEP2; AND SAVE THE ERROR
00000000'EF 50 DO 0143 578 30$: MOVL R0,SHOW$ STATUS ; SAVE ERROR CODE
00000382'EF DF 014A 579 PUSHAL PERM RQST ; SEE IF /PERMANENT WAS SET
00000000'GF 01 FB 0150 580 CALLS #1,G^CLISPRESENT ;
009 50 E8 0157 581 BLBS -R0,35$ ; IF NOT SET, THEN
000001E9'EF 00 FB 015A 582 CALLS #0,NOT_PERM ; PROCESS REGULARLY
007 11 0161 583 BRB 37$ ; AND PROCEED
0000018C'EF 00 FB 0163 584 35$: CALLS #0,PERM ; OTHERWISE PROCESS PERM
50 00000000'EF DO 016A 585 37$: $DASSGN_S CHAN ; DEASSIGN CHANNEL
009 50 E8 0178 586 40$: MOVL SHOW$ STATUS,R0 ; RETRIEVE FINAL STATUS
00000000'GF 50 DD 017F 587 BLBS -R0,45$ ; SKIP IT IF OK
01 FB 0182 588 PUSHL R0 ; OTHERWISE SIGNAL IT
0184 589 CALLS #1,G^LIB$ SIGNAL
018B 590 45$: RET ; DONE
018C 591 :
018C 592 : PERMANENT QUALIFIER ROUTINE
018C 593 :
018C 594 PERM: .WORD ^M<R2,R3,R4,R5,R6,R7,R8,R9,R10,R11>; PROCESS PERMANENT QUALIFIER
4A 00000000'EF E9 018E 595 BLBC SHOW$ STATUS,15$ ; BR IF CHANNEL NOT ASSIGNED
0000001C'EF 7C 0195 596 CLRQ TER INFO ;CLEAN THE INFO BLOCK OUT
00000024'EF D4 019B 597 CLRL TER$ DEVDEP2 ;FOR COMPATABILITY REASONS
01A1 598 $QIOW_S #0,CHAN,#IOS_SENSECHAR,IOSB,P1=TER INFO,P2=#12
01CA 599 BLBS -R0,5$ ; BR IF NOT SUCCESS
50 0000000C'EF 3C 01CD 600 MOVZWL -IOSB,R0 ; GET IOSB STATUS
014 50 E8 01D4 601 BLBS -R0,PRINT ; AND CONTINUE IF SUCCESS
00000000'EF 50 DO 01D7 602 5$: MOVL R0,SHOW$ STATUS ; SAVE STATUS
04 01DE 603 RET
00000000'EF 0000'8F 3C 01DF 604 15$: MOVZWL #$$$_NOPRIV,SHOW$ STATUS; ASSUME NO PRIVILEGE
04 01E8 605 RET
01E9 606 :
01E9 607 : OUTPUT CHARACTERISTICS AND NON-PERMANENT QUALIFIER ROUTINE
01E9 608 :
01E9 609 NOT PERM: .WORD ^M<R2,R3,R4,R5,R6,R7,R8,R9,R10,R11>; NOT PERMANENT ENTRY
OFFC 01EB 610 PRINT::
01EB 611 :
01EB 612 : OUTPUT NAME, TYPE, WIDTH AND PAGE AND OWNER
01EB 613 :
000001E3'EF 00000D7D'EF 7D 01EB 614 MOVQ NO OWNER, CHAR_LIST+8 ; Use an inocuous owner if it is
00000028'EF D5 01F6 615 TSTL TER$ _PID ; Check to see if there is an owner
61 13 01FC 616 BEQL 3$ ; No owner then leave as a default
01FE 617 $GETJPIW S - ; Else get the owner information
01FE 618 ITMLST = JPI ITMLST, -
01FE 619 PIDADR = TER$ _PID
0D 50 E8 0219 620 BLBS -R0,2$ ; Got it
000001E3'EF 00000D8D'EF 7D 021C 621 MOVQ NOT_AVAIL, CHAR_LIST+8 ; Else say owner not available
36 11 0227 622 BRB 3$
0229 623
```


Address	Instruction	Comment
000001E3'EF	MOVQ	OWNER_NAME, CHAR_LIST+8 ; Insert real owner name
00000D49'FF	LOCC	#^A' , USER_NAME, @USER_NAME+4 ; Remove trailing blanks
00000D45'EF	SUBL	RO, USER_NAME ; from username
00000D2D'FF	CMPC5	OWNER_NAME, @OWNER_NAME+4, - ; Is owner process name
00000D45'EF		
000001DB'EF		
0000004C'EF		
0000001D'EF		
0000053D'EF		
000001DF'EF		
000004DE'EF		
000001DB'EF		
00000393'EF		
00000000'GF		
000001DB'EF		
000001DF'EF		
00000030'EF		
00000038'EF		
00000039'EF		
00000048'EF		
0000004D'EF		
000001DF'EF		
00000038'EF		
000001DB'EF		
000001DF'EF		
000000DA2'EF		
000000DA2'EF		
00000D45'EF		
000001DB'EF		
000003CA'EF		
00000D45'EF		
000003D8'EF		
00000D45'EF		
00000000'GF		
03 00000000'EF		
00E3		
57 0000000F'EF		
07		
57 0000000E'EF		
000001DB'EF		
00000CF4'EF		
000001DF'EF		
00000011'EF		
000001E3'EF		
0000001E'EF		


```
000001E7'EF 00000CEF'EF 9E 0378 679 MOVAB NOPAR,CHAR_LIST+12 ; ASSUME NO PARITY
1E 00000012'EF 06 E1 0383 680 BBC #TTSV,PARITY,IOSB+6,25$; PARITY?
000001E7'EF 00000CE6'EF 9E 038B 681 MOVAB EPAR,CHAR_LIST+12 ; ASSUME EVEN
0B 00000012'EF 07 E1 0396 682 BBC #TTSV,ODD,IOSB+6,25$ ; BR IF EVEN
000001E7'EF 00000CEB'EF 9E 039E 683 MOVAB OPAR,CHAR_LIST+12 ;
000001DB'EF 000001DB'EF 9F 03A9 684 25$: PUSHAB CHAR_LIST ; USE THE NORMAL CHARACTERISTIC LIST
000003F9'EF DF 03AF 685 PUSHAL SHOW$ TERM_L2 ; AND USE OUR SECOND LINE
00000000'EF 02 FB 03B5 686 CALLS #2,SHOW$WRITE_LINE ; SHOW THE MESSAGE
58 0000000E'EF 9A 03BC 687 MOVZBL IOSB+2,R8 ; SPEED OUT
000001DB'EF 00000CF4'EF48 3C 03C3 688 MOVZWL SPEED[R8],CHAR_LIST
000001DF'EF 00000010'EF 9A 03CF 689 MOVZBL IOSB+4,CHAR_LIST+4 ; INSERT CR FILL
000001E3'EF 00000023'EF 9A 03DA 690 MOVZBL TER$B_LENGTH,CHAR_LIST+8; INSERT PAGE
000001E7'EF 00000DA2'EF 9E 03E5 691 MOVAB BLNK,CHAR_LIST+12 ; DON'T TELL ABOUT DISMISS IF NO PARITY
1E 00000012'EF 06 E1 03F0 692 BBC #TTSV,PARITY,IOSB+6,27$; PARITY?
000001E7'EF 00000DCB'EF 9E 03F8 693 MOVAB DISM,CHAR_LIST+12 ; NORMALLY DISMISS PARITY ERRORS
0B 00000012'EF 01 E0 0403 694 BBS #1,IOSB+6,27$ ; CONTINUE IF NOT DISMISSING
000001E7'EF 00000DE1'EF 9E 040B 695 MOVAB NODISM,CHAR_LIST+12 ; AND SAY NO DISMISS
000001DB'EF 9F 0416 696 27$: PUSHAB CHAR_LIST ; OUTPUT MESSAGE
00000444'EF DF 041C 697 PUSHAL SHOW$ TERM_L3 ;
00000000'EF 02 FB 0422 698 CALLS #2,SHOW$WRITE_LINE ;
0429 699 ;
0429 700 ; OUTPUT CHARACTERISTICS DATA
0429 701 ;
56 000001DB'EF 54 D4 0429 702 30$: CLRL R4
86 03 9E 042B 703 MOVAB CHAR_LIST,R6
55 01 D0 0432 704 MOVL S^#NUMPERLINE-1,(R6)+ ; HOW MANY OF THESE ARE ON A LINE
CE 0435 705 MNEGL #1,R5 ; START R5 AS NEGATIVE 1
0438 706
66 00000792'EF44 D0 0438 707 50$: MOVL POSITIVE_NAME[R4],(R6); ASSUME POSITIVE
22 13 0440 708 BEQL 65$
55 D6 0442 709 INCL R5
04 55 91 0444 710 CMPB R5,S^#NUMPERLINE ;KEEP COUNT OF HOW MANY OF THESE WE USE
09 12 0447 711 BNEQ 55$ ; IF WE DON'T HAVE 5 THEN DON'T WORRIE
04 A6 66 D0 0449 712 MOVL (R6),4(R6) ;MOVE THE LOCATION UP 1 LONG WORD
86 03 D0 044D 713 MOVL S^#NUMPERLINE-1,(R6)+ ;MOVE UP 1 AND PUT IN THE COUNT
55 D4 0450 714 CLRL R5
08 00000020'EF 54 E0 0452 715 55$: BBS R4,TER$ DEVDEP,60$ ; BR IF POSITIVE
66 00000870'EF44 D0 045A 716 MOVL NEGATIVE_NAME[R4],(R6); SET NEGATIVE
86 D5 0462 717 60$: TSTL (R6)+ ; MOVE TO NEXT
54 D6 0464 718 65$: INCL R4
15 54 D1 0466 719 CMPL R4,#NUMCHRS1 ; TEST IF DONE YET
CD 1B 0469 720 BLEQU 50$
046B 721
54 D4 046B 722 CLRL R4 ; START OVER WITH R4
046D 723
66 0000096B'EF44 D0 046D 724 70$: MOVL POS2[R4],(R6) ; ASSUME POSITIVE
22 13 0475 725 BEQL 80$ ; IF NOTHING THERE TO ASUME THEN DON'T
55 D6 0477 726 INCL R5
04 55 91 0479 727 CMPB R5,#NUMPERLINE ;KEEP COUNT OF HOW MANY OF THESE WE USE
09 12 047C 728 BNEQ 73$ ; IF WE DON'T HAVE 5 THEN DON'T WORRIE
04 A6 66 D0 047E 729 MOVL (R6),4(R6) ;MOVE THE LOCATION UP 1 LONG WORD
86 03 D0 0482 730 MOVL #NUMPERLINE-1,(R6)+ ;MOVE UP 1 AND PUT IN THE COUNT
55 D4 0485 731 CLRL R5
08 00000024'EF 54 E0 0487 732 73$: BBS R4,TER$ DEVDEP2,75$ ; BR IF POSITIVE
66 00000A6F'EF44 D0 048F 733 MOVL NEG2[R4],(R6) ; SET NEGATIVE
86 D5 0497 734 75$: TSTL (R6)+ ; MOVE TO NEXT
54 D6 0499 735 80$: INCL R4
```



```
1E 54 D1 049B 736      CMPL R4,#NUMCHRS2      ; TEST IF DONE YET
   CD 1B 049E 737      BLEQU 70$
   55 02 C0 04A0 738
50 04 55 C5 04A0 739      ADDL2 #2,R5      ;MOVE THE POINTER TO THE CORRECT SPOT
   56 50 C2 04A7 740      MULL3 R5,#4,R0      ;GET OUR OFFSET
66 FE A5 DE 04AA 741      SUBL R0,R6
   7E D4 04AE 742      MOVAL -2(R5),(R6)
   SE DD 04B0 743
00000486'EF DF 04B2 744      CLRL -(SP)      ; GET A NULL PARAMETER
00000000'EF 02 FB 04B8 745      PUSHL SP      ; AND POINT TO IT
   8E D5 04BF 746      PUSHAL SHOW$ TERM L4      ; GET CONTROL STRING
   57 D4 04C1 747      CALLS #2,SHOW$WRITE_LINE      ; PRINT IT
   58 14 57 C5 04CA 748      TSTL (SP)+      ; CLEAN UP
   7E 56 58 C1 04CE 749
000004A9'EF DF 04D2 750      CLRL R7      ; KEEP TRACK OF WHERE WE ARE IN R7
00000000'EF 02 FB 04D8 751      MOVAL CHAR_LIST,R6      ; GET AT HEAD OF CHARACTERISTICS LIST
   E7 57 0B F2 04DF 752 81$: MULL3 R7,#20,R8      ; GET OFFSET INTO CHARACTERISTICS
   57 D4 04C1 753      ADDL3 R8,R6,-(SP)      ; PUSH ADDRESS OF ONE LINE OF CHARS
   58 14 57 C5 04CA 754      PUSHAL SHOW$ TERM L5      ; AND CONTROL STRING
00000000'EF 02 FB 04D8 755      CALLS #2,SHOW$WRITE_LINE      ; OUTPUT IT
   E7 57 0B F2 04DF 756      AOBLS #11,R7,81$      ; KEEP GOING
   57 D4 04C1 757
   58 14 57 C5 04CA 758      ; Output spooled device data
   7E 56 58 C1 04CE 759
51 0000002C'EF 06 E1 04E3 760      BBC #DEV$V_SPL, TER$L_DEVCHAR, 85$ ; Br if not spooled device
   04EB 761      $GETDVIW S -      ; Get spooled device information
   04EB 762      DEVNAM = TERM_DESC, -
   04EB 763      ITMLST = SPLDVI INFO
00000000'EF 50 D0 0509 764      MOVL R0, SHOW$L_STATUS      ; Save the status code
   29 50 E9 0510 765      BLBC R0, 85$      ; Output nothing if failure
000001DB'EF 00000048'EF D0 0513 766      MOVL TER$L_DEVNAMLN, CHAR_LIST ; Insert name size
000001DF'EF 0000004D'EF 9E 051E 767      MOVAB TER$L_DEVNAM, CHAR_LIST+4 ; and address
   000001DB'EF DF 0529 768      PUSHAL CHAR_LIST      ; Output message
   000004BF'EF 7F 052F 769      PUSHAL SHOW$ TTLP SPL
00000000'EF 02 FB 0535 770      CALLS #2, SHOW$WRITE_LINE
   04 053C 771 85$: RET
```



```
053D 773 :++
053D 774 : GET_FOREIGN_TYPE - Get a foreign terminal type (128 to 255)
053D 775 :
053D 776 : Implicit inputs:
053D 777 :
053D 778 :     TER$B_DEVTYPE = Foreign terminal type (128 to 255)
053D 779 :
053D 780 : Implicit outputs:
053D 781 :
053D 782 :     CHAR_LIST+4 = Address of terminal type name (.ASCII)
053D 783 :--
053D 784 :
053D 785 GET_FOREIGN_TYPE:                                : Get a foreign terminal type
0000 053D 786     .WORD    ^M<>
053F 787
053F 788     MOVAB    UNK, CHAR_LIST+4                        : Assume terminal is UNKNOWN
054A 789
054A 790     MOVZBL   TER$B_DEVTYPE, TMP$SL_DEVTYPE           : Extend device type to longword
0555 791     CMPL    TMP$SL_DEVTYPE, #191                   : Type in the private range?
0560 792     BGTRU    90$                                       : No (can always get system names)
0562 793     CMPL    SHOW$SL_STATUS, #SS$S_DEVALLOC          : Don't try to get private name for
056D 794     BNEQ    90$                                       : device alloc to someone else
056F 795     MOVAB    PRNAME, CHAR_LIST+4                    : Use <Private>
057A 796     BRB     100$
057C 797
057C 798 :
057C 799 : Do not link to the SMG unless you must
057C 800 :
057C 801 :
057C 802 90$: PUSHAL   SMG$INIT_TERM_TABLE_BY_TYPE           : Link to SMG
0582 803     PUSHAQ   $SMG$INIT_TERM_TABLE_BY_TYPE
0588 804     PUSHAQ   $SMG$SHR
058E 805     CALLS    #3, G^LIB$FIND_IMAGE_SYMBOL
0595 806     PUSHAL   SMG$DEL_TERM_TABLE
059B 807     PUSHAQ   $SMG$DEL_TERM_TABLE
05A1 808     CALLS    #3, G^LIB$FIND_IMAGE_SYMBOL
05A8 809
05A8 810     PUSHAQ   TMP_DEVNAM                                : Check termtable for definition
05AE 811     PUSHAL   TERM_TABLE_ADDR
05B4 812     PUSHAL   TMP$C_DEVTYPE
05BA 813     CALLS    #3, @SMG$INIT_TERM_TABLE_BY_TYPE
05C1 814     BLBC    R0, 100$                                : Exit if not defined
05C4 815
05C4 816     CVTWB    TMP_DEVNAM, TMP_TYPE_CT                    : Make name counted string
05CF 817     MOVAB    TMP_TYPE_CT, CHAR_LIST+4
05DA 818
05DA 819     CALLS    #0, @SMG$DEL_TERM_TABLE                      : Release any vm used
05E1 820
05E1 821 100$: RET
05E2 822
05E2 823     .END
```


SHOWTERM
Symbol table

K 1
- SHOW CHARACTERISTICS OF A TERMINAL

15-SEP-1984 23:48:29 VAX/VMS Macro V04-00
4-SEP-1984 23:23:40 [CLIUTL.SRC]SHOWTERM.MAR;1

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SS          = 0000078E R    02
$$$         = 00000CE6 R    02
$$T1        = 00000001
$$_OFF      = 00000CD7 R    02
$$_ON       = 00000CCB R    02
$SMG$DEL_TERM_TABLE = 000000C9 R    02
$SMG$INIT_TERM_TABLE_BY_TYPE = 000000A6 R    02
$SMG$SHR     = 00000098 R    02
BITS        = 00000008 R    02
BLNK        = 00000DA2 R    02
CHAN        = 00000004 R    02
CHAR_LIST   = 000001DB R    02
CLISGET_VALUE ***** X    03
CLISPRESENT ***** X    03
DEVSV_DET   = 00000001
DEVSV_MBX   = 00000014
DEVSV_NET   = 0000000D
DEVSV_SPL   = 00000006
DEVSV_TRM   = 00000002
DISCON      = 00000DFC R    02
DISM        = 00000DCB R    02
DSC$B_CLASS = 00000003
DSC$B_DTYPE = 00000002
DSC$K_CLASS_D = 00000002
DSC$K_CLASS_S = 00000001
DSC$K_DTYPE_T = 0000000E
DVIS$SECONDARY = 00000001
DVIS$DEVBUFSIZ = 00000008
DVIS$DEVCHAR = 00000002
DVIS$DEVCHAR2 = 000000E6
DVIS$DEVCLASS = 00000004
DVIS$DEVDEPEND = 0000000A
DVIS$DEVDEPEND2 = 0000001C
DVIS$DEVNAM = 00000020
DVIS$DEVTYPE = 00000006
DVIS$PID    = 0000000E
DVIS$TT_PHYDEVNAM = 00000112
END_NAME    = 000006DE R    02
EPAR        = 00000CE6 R    02
GETDVI_INFO = 000000E3 R    02
GET_FOREIGN_TYPE = 0000053D R    03
IOS$SENSECHAR ***** X    03
IOS$SENSEMODE ***** X    03
IOSB        = 0000000C R    02
JPIS$PRCNAM = 0000031C
JPIS$USERNAME = 00000202
JPI$ITMLST  = 00000D61 R    02
LIB$FIND_IMAGE_SYMBOL ***** X    03
LIB$SIGNAL  ***** X    03
NEG2        = 00000A6F R    02
NEGATIVE_NAME = 00000870 R    02
NODISM      = 00000DE1 R    02
NOPAR       = 00000CEF R    02
NOT_AVAIL   = 00000D8D R    02
NOT_PERM    = 000001E9 R    03
NO_OWNER    = 00000D7D R    02
NULL_STRING = 0000036B R    02

```

```

NUMCHRS1    = 00000015
NUMCHRS2    = 0000001E
NUMPERLINE  = 00000004 G
OPAR        = 00000CEB R    02
OWNER_NAME  = 00000D29 R    02
PERM        = 0000018C R    03
PERM_RQST   = 00000382 R    02
PHY_TERM    = 00000DA4 R    02
POS2        = 0000096B R    02
POSITIVE_NAME = 00000792 R    02
PRNAME      = 00000E09 R    02
PRINT       = 000001EB RG   03
SECDVI_INFO = 0000015F R    02
SHOWSL_STATUS = 00000000 R    02
SHOW$TERM_L1 = 00000000 RG   03
SHOW$WRITE_LINE ***** X    03
SHOW$TERM_L1 = 00000393 R    02
SHOW$TERM_L1A = 000003CA R    02
SHOW$TERM_L1B = 000003D8 R    02
SHOW$TERM_L2 = 000003F9 R    02
SHOW$TERM_L3 = 00000444 R    02
SHOW$TERM_L4 = 00000486 R    02
SHOW$TERM_L5 = 000004A9 R    02
SHOW$TTLP_SPL = 000004BF R    02
SMG$DEL_TERM_TABLE = 00000094 R    02
SMG$INIT_TERM_TABLE_BY_TYPE = 00000090 R    02
SPEED       = 00000CF4 R    02
SPLDVI_INFO = 0000014F R    02
$$$_DEVALLOC ***** X    03
$$$_IVDEVNAM ***** X    03
$$$_NOPRIV  ***** X    03
$$$_TERMNETDEV ***** X    03
SYSS$ASSIGN ***** GX    03
SYSS$DASSGN ***** GX    03
SYSS$GETDVIW ***** GX    03
SYSS$GETJPIW ***** GX    03
SYSS$QIOW   ***** GX    03
SYS_COMMAND = 00000D16 R    02
TER$B_DEVCLASS = 0000001C R    02
TER$B_DEVNAMCT = 0000004C R    02
TER$B_DEVTYPE = 0000001D R    02
TER$B_LENGTH = 00000023 R    02
TER$B_PHYDEVCT = 00000038 R    02
TER$B_DEVCHAR = 0000002C R    02
TER$B_DEVCHAR2 = 00000030 R    02
TER$B_DEVDEP = 00000020 R    02
TER$B_DEVDEP2 = 00000024 R    02
TER$B_DEVNAMLN = 00000048 R    02
TER$B_PHYDEVLN = 00000034 R    02
TER$B_PID    = 00000028 R    02
TER$B_DEVBUFSIZ = 0000001E R    02
TER$B_DEVNAM = 0000004D R    02
TER$B_PHYDEV = 00000039 R    02
TERM_DESC   = 0000036C R    02
TERM_RQST   = 00000374 R    02
TERM_TABLE_ADDR = 0000008C R    02
TER_INFO    = 0000001C R    02

```


SHOWTERM
Symbol table

- SHOW CHARACTERISTICS OF A TERMINAL^{L 1}

15-SEP-1984 23:48:29 VAX/VMS Macro V04-00
4-SEP-1984 23:23:40 [CLIUTL.SRC]SHOWTERM.MAR;1

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(4)

TMP\$L_DEVBUSIZ	00000064	R	02
TMP\$L_DEVCLASS	0000005C	R	02
TMP\$L_DEVTYPE	00000060	R	02
TMPTRM\$L_DEVDEP2	00000070	R	02
TMPTRM_INFO	00000068	R	02
TMP_DEVNAM	00000074	R	02
TMP_TYPE_CT	0000007C	R	02
TMP_TYPE_NAME	0000007D	R	02
TT\$V_ODD	= 00000007		
TT\$V_PARITY	= 00000006		
TT\$_FT1	= 00000010		
TT\$_FT2	= 00000011		
TT\$_FT3	= 00000012		
TT\$_FT4	= 00000013		
TT\$_FT5	= 00000014		
TT\$_FT6	= 00000015		
TT\$_FT7	= 00000016		
TT\$_FT8	= 00000017		
TT\$_LA100	= 00000025		
TT\$_LA12	= 00000024		
TT\$_LA120	= 00000021		
TT\$_LA24	= 00000025		
TT\$_LA34	= 00000022		
TT\$_LA36	= 00000020		
TT\$_LA38	= 00000023		
TT\$_LQP02	= 00000026		
TT\$_PRO_SERIES	= 0000006F		
TT\$_TQ_BTS	= 00000004		
TT\$_VKT00	= 00000002		
TT\$_VT05	= 00000001		
TT\$_VT100	= 00000060		
TT\$_VT101	= 00000061		
TT\$_VT102	= 00000062		
TT\$_VT105	= 00000063		
TT\$_VT125	= 00000064		
TT\$_VT131	= 00000065		
TT\$_VT132	= 00000066		
TT\$_VT173	= 00000003		
TT\$_VT200_SERIES	= 0000006E		
TT\$_VT52	= 00000040		
TT\$_VT55	= 00000041		
TT2\$V_APP_KEYPAD	= 00000017		
TT2\$V_DIALUP	= 0000000F		
TT2\$V_DISCONNECT	= 00000011		
TT2\$V_DRCS	= 00000015		
TT2\$V_EDITING	= 0000000C		
TT2\$V_FALLBACK	= 0000000E		
TT2\$V_INSERT	= 0000000D		
TT2\$V_PASTHRU	= 00000012		
TT2\$V_PRINTER	= 00000016		
TT2\$V_SECURE	= 00000010		
TT2\$V_SIXEL	= 00000014		
TT2\$V_SYSPWD	= 00000013		
TYPE_NAME	000004DE	R	02
UNK	000006DE	R	02
USER_NAME	00000D45	R	02
UTIL_DESC	00000014	R	02

VIR_TERM

00000DB8 R 02

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

PSECT name	Allocation	PSECT No.	Attributes
ABS	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
\$ABSS	00000000 (0.)	01 (1.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
SHOW\$RWDATA	00000E13 (3603.)	02 (2.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC LONG
SHOW\$CODE	000005E2 (1506.)	03 (3.)	NOPIC USR CON REL LCL NOSHR EXE RD NOWRT NOVEC BYTE

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

Phase	Page faults	CPU Time	Elapsed Time
Initialization	10	00:00:00.06	00:00:00.85
Command processing	80	00:00:00.88	00:00:04.46
Pass 1	315	00:00:11.52	00:00:38.36
Symbol table sort	0	00:00:01.21	00:00:03.69
Pass 2	180	00:00:03.25	00:00:10.38
Symbol table output	21	00:00:00.17	00:00:00.88
Psect synopsis output	2	00:00:00.02	00:00:00.03
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	611	00:00:17.13	00:00:58.86

The working set limit was 1500 pages.

74182 bytes (145 pages) of virtual memory were used to buffer the intermediate code.

There were 50 pages of symbol table space allocated to hold 770 non-local and 108 local symbols.

823 source lines were read in Pass 1, producing 38 object records in Pass 2.

27 pages of virtual memory were used to define 26 macros.

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

Macro library name	Macros defined
-\$255\$DUA28:[CLIUTL.OBJ]CLIUTL.MLB;1	0
-\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	0
-\$255\$DUA28:[SYSLIB]STARLET.MLB;2	19
TOTALS (all libraries)	19

849 GETS were required to define 19 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:SHOWTERM/OBJ=OBJ\$:SHOWTERM MSRC\$:SHOWTERM/UPDATE=(ENH\$:SHOWTERM)+EXECMLS/LIB+LIB\$:CLIUTL/LIB

0057

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VAX/VMS V4.0

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