

NNN	NNN	IIIIIIIIII	CCCCCCCCCCCC	NNN	NNN	FFFFFFFFFFFFFF
NNN	NNN	IIIIIIIIII	CCCCCCCCCCCC	NNN	NNN	FFFFFFFFFFFFFF
NNN	NNN	IIIIIIIIII	CCCCCCCCCCCC	NNN	NNN	FFFFFFFFFFFFFF
NNN	NNN	III	CCC	NNN	NNN	FFF
NNN	NNN	III	CCC	NNN	NNN	FFF
NNN	NNN	III	CCC	NNN	NNN	FFF
NNNNNN	NNN	III	CCC	NNNNNN	NNN	FFF
NNNNNN	NNN	III	CCC	NNNNNN	NNN	FFF
NNNNNN	NNN	III	CCC	NNNNNN	NNN	FFF
NNN	NNN	III	CCC	NNN	NNN	FFFFFFFFFFFFFF
NNN	NNN	III	CCC	NNN	NNN	FFFFFFFFFFFFFF
NNN	NNN	III	CCC	NNN	NNN	FFFFFFFFFFFFFF
NNN	NNN	III	CCC	NNN	NNN	FFF
NNN	NNN	III	CCC	NNN	NNN	FFF
NNN	NNN	III	CCC	NNN	NNN	FFF
NNN	NNN	III	CCC	NNN	NNN	FFF
NNN	NNN	III	CCC	NNN	NNN	FFF
NNN	NNN	III	CCC	NNN	NNN	FFF
NNN	NNN	IIIIIIIIII	CCCCCCCCCCCC	NNN	NNN	FFF
NNN	NNN	IIIIIIIIII	CCCCCCCCCCCC	NNN	NNN	FFF
NNN	NNN	IIIIIIIIII	CCCCCCCCCCCC	NNN	NNN	FFF

```

CCCCCCCC NN NN FFFFFFFF SSSSSSSS HH HH 000000 WW WW
CCCCCCCC NN NN FFFFFFFF SSSSSSSS HH HH 000000 WW WW
CC NN NN FF SS HH HH 00 00 WW WW
CC NN NN FF SS HH HH 00 00 WW WW
CC NNNN NN FF SS HH HH 00 00 WW WW
CC NNNN NN FF SS HH HH 00 00 WW WW
CC NN NN FFFFFFFF SSSSSS HHHHHHHHHH 00 00 WW WW
CC NN NN FFFFFFFF SSSSSS HHHHHHHHHH 00 00 WW WW
CC NN NNNN FF SS HH HH 00 00 WW WW
CC NN NNNN FF SS HH HH 00 00 WW WW
CC NN NN FF SS HH HH 00 00 WWW WWW
CC NN NN FF SS HH HH 00 00 WWW WWW
CCCCCCCC NN NN FF SSSSSSSS HH HH 000000 WW WW
CCCCCCCC NN NN FF SSSSSSSS HH HH 000000 WW WW

```

```

LL IIIII SSSSSSSS
LL IIIII SSSSSSSS
LL II SS
LL II SS
LL II SS
LL II SSSSSS
LL II SSSSSS
LL II SS
LL II SS
LL II SS
LLLLLLLLLL IIIII SSSSSSSS
LLLLLLLLLL IIIII SSSSSSSS

```

CI

V

.....

0

```

1 0001 0 XTITLE 'DECnet Ethernet Configurator Module'
2 0002 0 MODULE CNFSHOW
3 0003 0
4 0004 0 LANGUAGE (BLISS32),
5 0005 0 IDENT = 'V04-000'
6 0006 1 BEGIN
7 0007 1
8 0008 1
9 0009 1 *****
10 0010 1 *
11 0011 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
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28 0028 1 *
29 0029 1 *
30 0030 1 *****
31 0031 1
32 0032 1
33 0033 1 **
34 0034 1 FACILITY: DECnet Configurator Module (NICONFIG)
35 0035 1
36 0036 1 ABSTRACT:
37 0037 1
38 0038 1 This module contains the routines to return information on a
39 0039 1 SHOW request generated by an NCP> SHOW MODULE CONFIGUTOR command.
40 0040 1
41 0041 1 ENVIRONMENT: VAX/VMS Operating System
42 0042 1
43 0043 1 AUTHOR: Bob Grosso, CREATION DATE: 13-Oct-1982
44 0044 1
45 0045 1 MODIFIED BY:
46 0046 1
47 0047 1 --

```

```
49 0048 1 %SBTTL 'Definitions'
50 0049 1
51 0050 1
52 0051 1 ! INCLUDE FILES:
53 0052 1
54 0053 1
55 0054 1 LIBRARY 'SYSS$LIBRARY:STARLET'; ! VMS common definitions
56 0055 1
57 0056 1 LIBRARY 'SHRLIBS:NMALIBRY'; ! NICE code definitions
58 0057 1
59 0058 1 REQUIRE 'LIBS:CNFDEF.R32';
60 0149 1
61 0150 1 REQUIRE 'SRCS:CNFPREFIX.REQ';
62 0247 1
63 0248 1
64 0249 1
65 0250 1 ! BUILTIN functions
66 0251 1
67 0252 1
68 0253 1 BUILTIN
69 0254 1 SUBM; ! To support quadword subtraction
70 0255 1
71 0256 1 LITERAL
72 0257 1 NICE_BUFLN = 128;
73 0258 1
74 0259 1
75 0260 1 ! TABLE OF CONTENTS:
76 0261 1
77 0262 1
78 0263 1 FORWARD ROUTINE
79 0264 1
80 0265 1 PROCESS SHOW, ! Cover routine for common error handling of SHOW processing
81 0266 1 SHOW_CIRCUIT, ! Format circuit info
82 0267 1 SHOW_SYSTEM; ! Format info for a system ID message.
83 0268 1
84 0269 1
85 0270 1 ! EXTERNAL REFERENCES:
86 0271 1
87 0272 1
88 0273 1 EXTERNAL ROUTINE
89 0274 1
90 0275 1 ! Module CNFMAIN
91 0276 1
92 0277 1 CNF$EXIT, ! Clean up and exit
93 0278 1 CNF$TRACE, ! Log messages to log file
94 0279 1 CNF$FREE_VM, ! Free virtual memory
95 0280 1 CNF$GET_ZVM, ! Get zeroed virtual memory
96 0281 1
97 0282 1 ! Module CNFREQUES
98 0283 1
99 0284 1 CNF$LOCATE_CIR_BLK, ! Locate circuit block from circuit name
100 0285 1
101 0286 1 ! Module CNFSEND
102 0287 1
103 0288 1 CNF$BUFR_NICE_MSG, ! Buffer NICE response messages
104 0289 1 CNF$BUFR_ERR_MSG; ! Buffer NICE error responses
105 0290 1
```

```
.. 106 0291 1 EXTERNAL
.. 107 0292 1
.. 108 0293 1 CNF$GQ_CIRSURLST : VECTOR [2]; ! List of circuits under surveillance
.. 109 0294 1
.. 110 0295 1 OWN
.. 111 0296 1 NICE_DONE_DSC : ! NICE 'DONE' message
.. 112 0297 1 BBLOCK [DSC$C_S_BLN] INITIAL
.. 113 0298 1 (
.. 114 0299 1 1
.. 115 0300 1 UPLIT (
.. 116 0301 1 BYTE (%X'80')
.. 117 0302 1 )
.. 118 0303 1 ),
.. 119 0304 1
.. 120 0305 1 NICE_MORE_DSC : ! NICE 'MORE' message
.. 121 0306 1 BBLOCK [DSC$C_S_BLN] INITIAL
.. 122 0307 1 (
.. 123 0308 1 4
.. 124 0309 1 UPLIT (
.. 125 0310 1 BYTE (%X'02')
.. 126 0311 1 WORD (%X'FFFF'),
.. 127 0312 1 BYTE (%X'00')
.. 128 0313 1 )
.. 129 0314 1 );
```

```

131 0315 1 %SBTTL 'CNF$PROCESS SHOW Search the data base and format a response message'
132 0316 1 GLOBAL ROUTINE CNF$PROCESS_SHOW (IRB, KNOWN, CIRCUITNAM_DSC, INFTYP) =
133 0317 1
134 0318 1 |++
135 0319 1 | FUNCTIONAL DESCRIPTION:
136 0320 1 |
137 0321 1 | Shell routine to supply a common entrance and error exit to the
138 0322 1 | routine which builds the SHOW message.
139 0323 1 |
140 0324 1 | FORMAL PARAMETERS:
141 0325 1 |
142 0326 1 |     irb           Interrupt request block, contains context for returning
143 0327 1 |                 responses to connectee.
144 0328 1 |
145 0329 1 |     known        Was SHOW KNOWN CIRCUITS requested?
146 0330 1 |
147 0331 1 |     circuitnam_dsc Descriptor of circuit name if SHOW was requested for
148 0332 1 |                 a specific circuit.
149 0333 1 |
150 0334 1 |     inftyp       Code determining which information type was requested
151 0335 1 |                 for the SHOW, either CHARACTERISTICS, SUMMARY or STATUS.
152 0336 1 |
153 0337 1 | IMPLICIT INPUTS:
154 0338 1 |     NONE
155 0339 1 |
156 0340 1 | IMPLICIT OUTPUTS:
157 0341 1 |     NONE
158 0342 1 |
159 0343 1 | ROUTINE VALUE:
160 0344 1 | COMPLETION CODES:
161 0345 1 |
162 0346 1 | Always success, errors are buffered for return to connectee.
163 0347 1 |
164 0348 1 | SIDE EFFECTS:
165 0349 1 |     NONE
166 0350 1 |
167 0351 1 | --
168 0352 2 | BEGIN
169 0353 2 | LOCAL
170 0354 2 |     STATUS;
171 0355 2 |
172 0356 2 | CNF$TRACE (DBG$C TRACE, $DESCRIPTOR('TRACE'),
173 0357 2 |           $DESCRIPTOR('CNF$PROCESS_SHOW'));
174 0358 2 |
175 0359 2 | |
176 0360 2 | |     Send MORE message
177 0361 2 | |
178 0362 2 | EXECUTE (CNF$BUFR_NICE_MSG (.IRB, NICE_MORE_DSC, 0));
179 0363 2 |
180 0364 2 | |
181 0365 2 | |     Request that the SHOW information be gathered, formatted and buffered.
182 0366 2 | |
183 0367 2 | STATUS = PROCESS_SHOW (.IRB, .KNOWN, .CIRCUITNAM_DSC, .INFTYP);
184 0368 2 | IF NOT .STATUS
185 0369 2 | THEN
186 0370 2 |     CNF$BUFR_ERR_MSG (.IRB, NMASC_STS_MPR, 0, .STATUS);
187 0371 2

```

```

: 188      0372 2      |
: 189      0373 2      |      Send DONE message
: 190      0374 2      |
: 191      0375 2      | EXECUTE (CNF$BUFR_NICE_MSG (.IRB, NICE_DONE_DSC 0));
: 192      0376 2      |
: 193      0377 2      | RETURN TRUE;
: 194      0378 1      | END;

```

! Routine CNF\$PROCESS_SHOW

```

                                .TITLE CNFSHOW DECnet Ethernet Configurator Module
                                .IDENT  \V04-000\
                                .PSECT  $PLITS$,NOWRT,NOEXE,2
                                80 0000 P.AAA: .BYTE -128
                                0001 .BLKB 3
                                02 0004 P.AAB: .BYTE 2
                                FFFF 0005 .WORD -1
                                00 0007 .BYTE 0
                                45 43 41 52 54 0008 P.AAD: .ASCII \TRACE\
                                0000 .BLKB 3
                                00000005 0C010 P.AAC: .LONG 5
                                00000000' 00014 .ADDRESS P.AAD
                                4F 48 53 5F 53 53 45 43 4F 52 50 24 46 4E 43 00018 P.AAF: .ASCII \CNF$PROCESS_SHOW\
                                57 00027
                                00000010 00028 P.AAE: .LONG 16
                                00000000' 0002C .ADDRESS P.AAF
                                .PSECT  $OWNS$,NOEXE,2
                                00000001 00000 NICE_DONE_DSC:
                                .LONG 1
                                00000000' 00004 .ADDRESS P.AAA
                                00000004 00008 NICE_MORE_DSC:
                                .LONG 4
                                00000000' 0000C .ADDRESS P.AAB
                                .EXTRN CNF$EXIT, CNF$TRACE
                                .EXTRN CNF$FREE_VM, CNF$GET_LVM
                                .EXTRN CNF$LOCATE_CIR_BLK
                                .EXTRN CNF$BUFR_NICE_MSG
                                .EXTRN CNF$BUFR_ERR_MSG
                                .EXTRN CNF$GQ_CIRURLST
                                .PSECT  $CODE$,NOWRT,2
                                0000 0000 .ENTRY CNF$PROCESS_SHOW, Save nothing
                                0000' CF 9F 00002 PUSHAB P.AAE
                                0000' CF 9F 00006 PUSHAB P.AAC
                                01 DD 0000A PUSHL #1
                                0000G CF 03 FB 0000C CALLS #3, CNF$TRACE
                                7E D4 00011 CLRL -(SP)
                                0000' CF 9F 00013 PUSHAB NICE_MORE_DSC
                                04 AC DD 00017 PUSHL IRB
                                0000G CF 03 FB 0001A CALLS #3, CNF$BUFR_NICE_MSG
                                33 50 E9 0001F BLBC STATUS, 2$
                                7E 0C AC 7D 00022 MOVQ CIRCUITNAM_DSC, -(SP)

```

: 0316
: 0357
: 0356
: 0362
: 0367

CNFSHOW
V04-000

DECnet Ethernet Configurator Module
CNF\$PROCESS_SHOW Search the data base and for

L 2
16-Sep-1984 02:05:37
14-Sep-1984 12:49:54

VAX-11 Bliss-32 V4.0-742
[NICNF.SRC]CNFSHOW.B32;1

Page 6
(3)

0000V	7E	04	AC	7D	00026	MOVQ	IRB, -(SP)	
	CF		04	FB	0002A	CALLS	#4, PROCESS_SHOW	
	0F		50	E8	0002F	BLBS	STATUS, 1\$	0368
			50	DD	00032	PUSHL	STATUS	0370
			7E	D4	00034	CLRL	-(SP)	
	7E		05	CE	00036	MNEGL	#5, -(SP)	
0000G	CF	04	AC	DD	00039	PUSHL	IRB	
			04	FB	0003C	CALLS	#4, CNF\$BUFR_EKR_MSG	
			7E	D4	00041	CLRL	-(SP)	0375
		0000'	CF	9F	00043	PUSHAB	NICE_DONE_DSC	
		04	AC	DD	00047	PUSHL	IRB	
0000G	CF		03	FB	0004A	CALLS	#3, CNF\$BUFR_NICE_MSG	
	03		50	E9	0004F	BLBC	STATUS, 2\$	
	50		01	D0	00052	MOVL	#1, RC	0377
			04	00055	2\$:	RET		0378

; Routine Size: 86 bytes, Routine Base: \$CODE\$ + 0000


```

196 0379 1 XSBTTL 'process_show Search the data base and format a response message'
197 0380 1 ROUTINE PROCESS_SHOW (IRB, KNOWN, CIRCUITNAM_DSC, INFTYP) =
198 0381 1
199 0382 1 +-+
200 0383 1 Locate requested circuit or dispatch for all known circuits to
201 0384 1 the routine which will format and buffer the SHOW response.
202 0385 1
203 0386 1 irb Interrupt request block, contains context for returning
204 0387 1 responses to connectee.
205 0388 1
206 0389 1 known Was SHOW KNOWN CIRCUITS requested?
207 0390 1
208 0391 1 circuitnam_dsc Descriptor of circuit name if SHOW was requested for
209 0392 1 a specific circuit.
210 0393 1
211 0394 1 inftyp Code determining which information type was requested
212 0395 1 for the SHOW, either CHARACTERISTICS, SUMMARY or STATUS.
213 0396 1
214 0397 1 Always return success, any errors will be buffered for return to
215 0398 1 connectee.
216 0399 1 --
217 0400 1
218 0401 2 BEGIN
219 0402 2 MAP
220 0403 2 CIRCUITNAM_DSC : REF BBLOCK;
221 0404 2
222 0405 2 LOCAL
223 0406 2 CIR : REF BBLOCK;
224 0407 2
225 0408 2
226 0409 2 CNF$TRACE (DBG$C_TRACE, $DESCRIPTOR('TRACE'),
227 0410 2 $DESCRIPTOR ('process_show'));
228 0411 2
229 0412 2 IF .KNOWN
230 0413 2 THEN
231 0414 2 |
232 0415 2 | Format the data for all circuits
233 0416 2 |
234 0417 2 | BEGIN
235 0418 2 | CIR = .CNF$GQ_CIRSURLST; ! List of circuits under surveillance
236 0419 2 | WHILE .CIR NEQ CNF$GQ_CIRSURLST DJ ! For the entire list of circuits
237 0420 2 | BEGIN
238 0421 2 | EXECUTE (SHOW_CIRCUIT (.IRB, .CIR, .INFTYP));
239 0422 2 | CIR = .CIR [CIR$L_LINK]; ! Get next circuit in list
240 0423 2 | END; ! While traversing list of circuits
241 0424 2 | END
242 0425 2 ELSE
243 0426 2 BEGIN
244 0427 2 |
245 0428 2 | Locate the requested circuit and format the data for it.
246 0429 2 |
247 0430 2 | IF CNF$LOCATE_CIR_BLK (.CIRCUITNAM_DSC, CIR)
248 0431 2 | THEN
249 0432 2 | EXECUTE (SHOW_CIRCUIT (.IRB, .CIR, .INFTYP))
250 0433 2 | ELSE
251 0434 2 | BEGIN ! Oops, that circuit is not in the data base
252 0435 2 | CNF$BUFR_ERR_MSG (.IRB, NMA$C_STS_IDE, NMA$C_ENT_CIR, 0, .CIRCUITNAM_DSC);

```

```

: 253      0436 4      RETURN TRUE;
: 254      0 77      END;
: 255      0      END;
: 256      0434 2      END;
: 257      0440 2
: 258      0441 2      RETURN TRUE;
: 259      0442 1      END;

```

! Routine process_show

.PSECT \$SPLITS\$,NOWRT,NOEXE,2

```

          45 43 41 52 54 00030 P.AAH: .ASCII \TRACE\
          00035 .BLKB 3
          00000005 00038 P.AAG: .LONG 5
          00000000' 0003C .ADDRESS P.AAH
77 6F 68 73 5F 73 73 65 63 6F 72 70 00040 P.AAJ: .ASCII \process_show\
          0000000C 0004C P.AAI: .LONG 12
          00000000' 00050 .ADDRESS P.AAJ

```

.PSECT \$CODES\$,NOWRT,2

```

          0000 00000 PROCESS_SHOW:
          5E          04 C2 00002 .WORD Save nothing 0380
          0000' CF 9F 00005 .SUBL2 #4, SP
          0000' CF 9F 00009 .PUSHAB P.AAI 0410
          01 DD 0000D .PUSHAB P.AAG 0409
          0000G CF 03 FB 0000F .PUSHL #1
          24 08 AC E9 00014 .CALLS #3, CNF$TRACE
          6E 0000G CF D0 00018 .BLBC KNOWN, 2$ 0412
          50 0000G CF 9E 0001D 1$: .MOVL CNF$GQ-CIRSURLST, CIR 0418
          50 6E D1 00022 .MOVAB CNF$GQ-CIRSURLST, R0 0419
          45 13 00025 .Cmpl CIR, R0
          10 AC DD 00027 .BEQL 4$
          04 AE DD 0002A .PUSHL INFTYP 0421
          04 AC DD 0002D .PUSHL CIR
          0000V CF 03 FB 00030 .PUSHL IRB
          37 50 E9 00035 .CALLS #3, SHOW_CIRCUIT
          9E DD 00038 .BLBC STATUS, 5$
          E1 11 0003A .PUSHL @CIR
          5E DD 0003C 2$: .RRB 1$
          0000G CF 0C AC DD 0003E .PUSHL SP
          12 02 FB 00041 .PUSHL CIRCUITNAM_DSC
          50 E9 00046 .CALLS #2, CNF$LOCATE_CIR_BLK
          10 AC DD 00049 .BLBC R0, 3$
          04 AE DD 0004C .PUSHL INFTYP 0432
          04 AC DD 0004F .PUSHL CIR
          0000V CF 03 FB 00052 .PUSHL IRB
          12 50 E8 00057 .CALLS #3, SHOW_CIRCUIT
          04 0005A .BLBS STATUS, 4$
          0C AC DD 0005B 3$: .RET
          7E 03 7D 0005E .PUSHL CIRCUITNAM_DSC 0435
          7E 09 CE 00061 .MOVQ #3, -(SP)
          04 AC DD 00064 .MNEGL #9, -(SP)
          .PUSHL IRB

```

CNFSHOW
V04-000

DECnet Ethernet Configurator Module
process_show Search the data base and format

^{B 3}
16-Sep-1984 02:05:37
14-Sep-1984 12:49:54

VAX-11 Bliss-32 V4.0-742
[NICNF.SRC]CNFSHOW.B32;1

Page 9
(4)

0000G CF
50

05 FB 00067
01 DO 0006C 4\$:
04 0006F 5\$:

CALLS #5, CNF\$BUFR_ERR_MSG
MOVL #1, R0
RET

:
: 0441
: 0442

; Routine Size: 112 bytes, Routine Base: \$CODE\$ + 0056

```

261 0443 1 %SBTTL 'show_circuit Format all systems for circuit'
262 0444 1 ROUTINE SHOW_CIRCUIT (IRB, CIR, INFTYP) =
263 0445 1
264 0446 1 +-+
265 0447 1 Build the NICE for the SHOW response message and buffer it for
266 0448 1 transmission to the connectee.
267 0449 1
268 0450 1 irb Interrupt request block, contains context for returning
269 0451 1 responses to connectee.
270 0452 1
271 0453 1 cir Address of Circuit control block of circuit SHOW
272 0454 1 was requested for.
273 0455 1
274 0456 1 inftyp Code determining which information type was requested
275 0457 1 for the SHOW, either CHARACTERISTICS, SUMMARY or STATUS.
276 0458 1
277 0459 1 Always return success, any errors will be buffered for return to
278 0460 1 connectee.
279 0461 1 --
280 0462 1
281 0463 2 BEGIN
282 0464 2 MAP
283 0465 2 CIR : REF BBLOCK;
284 0466 2
285 0467 2 LOCAL
286 0468 2 CURRENT_TIMBUF : BBLOCK [8], ! Buffer to obtain the current system time
287 0469 2 DELTA_TIMBUF : BBLOCK [8], ! Buffer to calculate the time difference between the curren
288 0470 2 ! the time surveillance began on the circuit.
289 0471 2 NICE : REF BBLOCK, ! Pointer into the buffer where the NICE message is being bu
290 0472 2 NICE_BUFDSC : BBLOCK [DSC$C_S_BLN], ! Descriptor of NICE message buffer
291 0473 2 NICE_TMPDSC : BBLOCK [DSC$C_S_BLN], ! Descriptor of NICE Template buffer
292 0474 2 SID : REF BBLOCK, ! Pointer to a system ID message
293 0475 2 TIMBUF : VECTOR [7, WORD]; ! Buffer for converting binary time format to ASCII for NICE
294 0476 2
295 0477 2 BIND
296 0478 2 CONF = UPLIT (%ASCIC 'CONFIGURATOR') : VECTOR [,BYTE]; ! Module name to place into NICE return
297 0479 2
298 0480 2
299 0481 2 CNF$TRACE (DBG$C_TRACE, $DESCRIPTOR('TRACE'),
300 0482 2 $DESCRIPTOR ('show_circuit'));
301 0483 2
302 0484 2
303 0485 2 Zero the descriptor which will locate the buffer where the NICE response
304 0486 2 will be built, allocate the buffer, and initialize buffer pointer.
305 0487 2
306 0488 2 CH$FILL (0, DSC$C_S_BLN, NICE_TMPDSC);
307 0489 2 EXECUTE (CNF$GET_ZVM (%REF (NICE_BUFLEN), NICE_TMPDSC [DSC$A_POINTER]));
308 0490 2 NICE = .NICE_TMPDSC [DSC$A_POINTER];
309 0491 2
310 0492 2
311 0493 2 Place Error status
312 0494 2
313 0495 2 1 byte return code
314 0496 2 2 bytes error detail
315 0497 2 1 byte length of error message
316 0498 2
317 0499 2 (.NICE) <0, 8> = %X'01'; ! Return code SUCCESS

```

```

318 0500 2 (.NICE) <8, 16> = %X'FFFF';          ! Error detail, SUCCESS
319 0501 2 (.NICE) <24, 8> = %X'00';          ! Error text length
320 0502 2
321 0503 2
322 0504 2 Copy over the module entity, CONFIGURATOR
323 0505 2
324 0506 2 1 byte Length of CONFIGURATOR string
325 0507 2 12 bytes CONFIGURATOR string
326 0508 2
327 0509 2 (.NICE) <32, 8> = .CONF [0];          ! Length of CONFIGURATOR string
328 0510 2 NICE = .NICE + 5;                ! Set pointer to beginning of circuit name
329 0511 2 CHSMOVE (.CONF [0], CONF [1], .NICE);
330 0512 2 NICE_TMPDSC [DSC$W_LENGTH] = 5 + .CONF [0];
331 0513 2 NICE = .NICE + .CONF [0];          ! Point to free space in buffer after
332 0514 2 ! the circuit name which was just copied in
333 0515 2
334 0516 2 Copy over Circuit name entity
335 0517 2
336 0518 2
337 0519 2 2 bytes Circuit entity ID
338 0520 2 1 byte Parameter type = ASCII
339 0521 2 1 byte Length of circuit name
340 0522 2 n bytes Circuit name
341 0523 2
342 0524 2 (.NICE) <0, 16> = NMASC_PCCN_CIR;
343 0525 2 (.NICE) <16, 8> = NMASC_PTY_AI;    ! Type = ASCII
344 0526 2 (.NICE) <24, 8> = .CIR [CIR$W_CIRNAMLEN]; ! Length of Circuit name
345 0527 2 NICE = .NICE + 4;                ! Set pointer to beginning of circuit name
346 0528 2 CHSMOVE (.CIR [CIR$W_CIRNAMLEN], CIR [CIR$T_CIRNAM], .NICE);
347 0529 2 NICE = .NICE + .CIR [CIR$W_CIRNAMLEN]; ! Point to free space in buffer after
348 0530 2 ! the circuit name which was just copied in
349 0531 2 NICE_TMPDSC [DSC$W_LENGTH] = .NICE_TMPDSC [DSC$W_LENGTH] + 4 + .CIR [CIR$W_CIRNAMLEN];
350 0532 2
351 0533 2 Place in Surveillance parameter
352 0534 2 as a coded value
353 0535 2
354 0536 2
355 0537 2 2 bytes Surviellance parameter ID
356 0538 2 1 byte Surveillance type = coded byte
357 0539 2 1 byte Surveillance value
358 0540 2
359 0541 2 (.NICE) <0, 16> = NMASC_PCCN_SUR;
360 0542 2 BEGIN
361 0543 2 BIND
362 0544 2 TYPE = .NICE + 2 : BBLOCK;
363 0545 2 TYPE [NMA$V_PTY_COD] = TRUE;        ! Surveillance is returned as a coded value
364 0546 2 TYPE [NMA$V_PTY_CLE] = 1;        ! The coded value is 1 byte in length
365 0547 2 END;
366 0548 2 (.NICE) <24, 8> = .CIR [CIR$B_SURVEIL];
367 0549 2 NICE = .NICE + 4;                ! Set pointer to end of buffer where Elapsed Time will be pl
368 0550 2
369 0551 2 Place in Elapsed Time parameter
370 0552 2 as a coded multiple
371 0553 2
372 0554 2
373 0555 2 2 bytes Elapsed Time parameter ID
374 0556 2 1 byte Elapsed time type = coded multiple of 3 fields

```

```

375 0557 2 | 1 byte hours type = unsigned decimal word
376 0558 2 | 2 bytes hours value
377 0559 2 | 1 byte minutes type = unsigned decimal byte
378 0560 2 | 1 byte minutes value
379 0561 2 | 1 byte seconds type = unsigned decimal byte
380 0562 2 | 1 byte seconds value
381 0563 2 |
382 0564 2 | (.NICE) <0, 16> = NMASC_PCCV_ELT; ! Set parameter ID
383 0565 2 | BEGIN
384 0566 2 | BIND
385 0567 2 | CODMUL_TYP = .NICE + 2 : BBLOCK,
386 0568 2 | HR_TYP = .NICE + 3 : BBLOCK,
387 0569 2 | MIN_TYP = .NICE + 6 : BBLOCK,
388 0570 2 | SEC_TYP = .NICE + 8 : BBLOCK;
389 0571 2 |
390 0572 2 | CODMUL_TYP [NMA$V_PTY_COD] = TRUE; ! Elapsed Time is returned as a coded
391 0573 2 | CODMUL_TYP [NMA$V_PTY_MUL] = TRUE; ! multiple.
392 0574 2 | CODMUL_TYP [NMA$V_PTY_CLE] = 3; ! There are three fields in the coded multiple
393 0575 2 |
394 0576 2 |
395 0577 2 | Get the current system time, subtract
396 0578 2 | Time of Surveillance start from Current time
397 0579 2 | to get negative Delta time
398 0580 2 |
399 0581 2 | EXECUTE ($GETTIM (TIMADR = CURRENT_TIMBUF));
400 0582 2 | SUBM (2, CIR [CIR$Q_ELAPSDTIM], CURRENT_TIMBUF, DELTA_TIMBUF);
401 0583 2 | EXECUTE ($NUMTIM (TIMBUF = TIMBUF, TIMADR = DELTA_TIMBUF));
402 0584 2 |
403 0585 2 | HR_TYP [NMA$V_PTY_NTY] = NMASC_NTY_DU; ! Unsigned decimal
404 0586 2 | HR_TYP [NMA$V_PTY_NLE] = 2; ! word.
405 0587 2 | (.NICE) <32, T6> = .TIMBUF [3]; ! Hours
406 0588 2 |
407 0589 2 | MIN_TYP [NMA$V_PTY_NTY] = NMASC_NTY_DU; ! Unsigned decimal
408 0590 2 | MIN_TYP [NMA$V_PTY_NLE] = 1; ! byte.
409 0591 2 | (.NICE) <56, 85> = .TIMBUF [4]; ! Minutes
410 0592 2 |
411 0593 2 | SEC_TYP [NMA$V_PTY_NTY] = NMASC_NTY_DU; ! Unsigned decimal
412 0594 2 | SEC_TYP [NMA$V_PTY_NLE] = 1; ! byte.
413 0595 2 | (.NICE) <72, 85> = .TIMBUF [5]; ! Seconds
414 0596 2 | END;
415 0597 2 |
416 0598 2 | NICE_TMPDSC [DSC$W_LENGTH] = 14 + .NICE_TMPDSC [DSC$W_LENGTH];
417 0599 2 |
418 0600 2 | SID = .CIR [CIR$L_SIDFLINK]; ! Point to first System ID
419 0601 2 |
420 0602 2 | IF (.SID EQL CIR [CIR$L_SIDFLINK]) OR ! There are no ID's collected for this circuit
421 0603 2 | ((.INF_TYP NEQ NMASC_OPINF_STA) AND ! or Summary requested
422 0604 2 | (.INF_TYP NEQ NMASC_OPINF_CHA))
423 0605 2 | THEN
424 0606 2 |
425 0607 2 | Print only circuit info, not system ID's, since either
426 0608 2 | there are no ID's collected, or a SHOW SUMMARY was requested.
427 0609 2 |
428 0610 2 | BEGIN
429 0611 2 | CNF$BUFR NICE_MSG (.IRB, NICE_TMPDSC, NICE_BUFLen);
430 0612 2 | RETURN TRUE;
431 0613 2 | END

```

```

432 0614 3
433 0615 2
434 0616 2
435 0617 2
436 0618 2
437 0619 2
438 0620 2
439 0621 3
440 0622 3
441 0623 4
442 0624 4
443 0625 4
444 0626 4
445 0627 4
446 0628 4
447 0629 4
448 0630 4
449 0631 4
450 0632 4
451 0633 4
452 0634 4
453 0635 4
454 0636 4
455 0637 4
456 0638 4
457 0639 4
458 0640 4
459 0641 4
460 0642 4
461 0643 4
462 0644 3
463 0645 3
464 0646 3
465 0647 3
466 0648 3
467 0649 3
468 0650 2
469 0651 2
470 0652 2
471 0653 1

```

```

ELSE
    Traverse the list of system ID's and format a NICE response
    for each one. Each one will be appended to a repeat of the
    circuit info already gathered.

BEGIN
    WHILE .SID NEQ CIR [CIR$$_SIDFLINK] DO          ! For all the System ID's
        BEGIN
            Zero the descriptor and allocate a clean buffer for the NICE
            response message. Then copy the message already built for the
            circuit info as the start of the message to which the system ID
            info will be appended.

            CH$FILL (0, DSC$$_S_BLN, NICE_BUF$$_DSC);
            EXECUTE (CNF$$_GET_ZVM (%REF (NICE_BUF$$_LEN), NICE_BUF$$_DSC [DSC$$_A_POINTER]));
            CH$MOVE (.NICE_TMP$$_DSC [DSC$$_LENGTH], .NICE_TMP$$_DSC [DSC$$_A_POINTER],
                .NICE_BUF$$_DSC [DSC$$_A_POINTER]);
            NICE_BUF$$_DSC [DSC$$_LENGTH] = .NICE_TMP$$_DSC [DSC$$_LENGTH];

            Append the system ID info to the NICE response, and
            buffer the message for later transmission.
            Then follow list pointer to next system ID.

            SHOW SYSTEM (.SID, NICE_BUF$$_DSC);
            CNF$$_BUFR NICE_MSG (.IRB, NICE_BUF$$_DSC, NICE_BUF$$_LEN);
            SID = .SID [SID$$_LINK];
        END;          ! While processing all system ID's for the circuit

        Return the buffer which we used to build the circuit info part
        of the response.

        EXECUTE (CNF$$_FREE_VM (%REF (NICE_BUF$$_LEN), NICE_TMP$$_DSC [DSC$$_A_POINTER]));
    END;          ! There are system ID's for this circuit

RETURN TRUE;
END;          ! Routine show_circuit

```

```

.PSECT $PLITS,NOWRT,NOEXE,2
00 00 52 4F 54 41 52 55 47 49 46 4E 4F 43 0C 00054 P.AAK: .ASCII <12>\CONFIGURATOR\<0><0><0>
                                00 00063
                                45 43 41 52 54 00064 P.AAM: .ASCII \TRACE\
                                00069
                                00000005 0006C P.AAL: .BLKB 3
                                00000000' 00070 .LONG 5
                                74 69 75 63 72 69 63 5F 77 6F 68 73 00074 P.AAO: .ADDRESS P.AAM
                                0000000C 00080 P.AAN: .ASCII \show_circuit\
                                00000000' 00084 .LONG 12
                                .ADDRESS P.AAO

CONF=
.P.AAK
.EXTRN SYSS$GETTIM, SYSS$NUMTIM

```

				.PSECT		\$CODE\$,NOWRT,2				
				00FC	00000	SHOW_CIRCUIT:				
			SE	34	C2	00002	.WORD	Save R2,R3,R4,R5,R6,R7	0444	
				0000'	CF	9F	00005	SUBL2	#52, SP	
				0000'	CF	9F	00009	PUSHAB	P.AAN	
					01	DD	0000D	PUSHAB	P.AAL	
					03	FB	0000F	PUSHL	#1	
08			0000G		00	2C	00014	CALLS	#3, CNF\$TRACE	
			6E		00	2C	00014	MOVCS	#0, (SP), #0, #8, NICE_TMPDSC	
				14	AE		00019		0488	
				18	AE	9F	0001B	PUSHAB	NICE_TMPDSC+4	
			04	80	8F	9A	0001E	MOVZBL	#128, 4(SP)	
				04	AE	9F	00023	PUSHAB	4(SP)	
			0000G		02	FB	00026	CALLS	#2, CNF\$GET_ZVM	
			79		50	E9	0002B	BLBC	STATUS, 1\$	
			56	18	AE	D0	0002E	MOVL	NICE_TMPDSC+4, NICE	
			86		01	90	00032	MOVW	#1, (NICE)+	
			86		01	AE	00035	MNEGW	#1, (NICE)+	
					86	94	00038	CLRB	(NICE)+	
			57	0000'	CF	9A	0003A	MOVZBL	CONF, R7	
			96		57	90	0003F	MOVW	R7, (NICE)+	
	14	66	0000'		57	28	00042	MOVCS	R7, CONF+1, (NICE)	
					57	A1	00048	ADDW3	#5, R7, NICE_TMPDSC	
					57	C0	0004D	ADDL2	R7, NICE	
			86	64	8F	9B	00050	MOVZBW	#100, (NICE)+	
			86	40	8F	90	00054	MOVW	#64, (NICE)+	
			57	08	AC	D0	00058	MOVL	CIR, R7	
			86	16	A7	90	0005C	MOVW	22(R7), (NICE)+	
		66	18	16	A7	28	00060	MOVCS	22(R7), 24(R7), (NICE)	
				16	A7	32	00066	CVTBL	22(R7), R0	
			56		50	C0	0006A	ADDL2	R0, NICE	
			50	14	AE	3C	0006D	MOVZWL	NICE_TMPDSC, R0	
			51	16	A7	32	00071	CVTBL	22(R7), R1	
			50		51	C0	00075	ADDL2	R1, R0	
	14	AE			04	A1	00078	ADDW3	#4, R0, NICE_TMPDSC	
			86	6E	8F	9B	0007D	MOVZBW	#110, (NICE)+	
	86		66	80	8F	88	00081	BISB2	#128, (NICE)	
			00		01	F0	00085	INSV	#1, #0, #6, (NICE)+	
			86	0A	A7	90	0008A	MOVW	10(R7), (NICE)+	
			66	6F	8F	9B	0008E	MOVZBW	#111, (NICE)	
			02	C0	8F	88	00092	BISB2	#192, 2(NICE)	
02	A6		06		03	F0	00097	INSV	#3, #0, #6, 2(NICE)	
			00	2C	AE	9F	0009D	PUSHAB	CURRENT_TIMBUF	
			00000000G		01	FB	000A0	CALLS	#1, SYS\$GETTIM	
			1E		50	E9	000A7	BLBC	STATUS, 2\$	
			24	AE	30	A7	C3	000AA	SUBL3	48(R7), CURRENT_TIMBUF, DELTA_TIMBUF
			28		30	AE	D0	000B1	MOVL	CURRENT_TIMBUF, DELTA_TIMBUF
			28		34	A7	D9	000B6	SBWC	52(R7), DELTA_TIMBUF
					24	AE	9F	000BB	PUSHAB	DELTA_TIMBUF
					08	AE	9F	000BE	PUSHAB	TIMBUF
			00000000G		02	FB	000C1	CALLS	#2, SYS\$NUMTIM	
			7B		50	E9	000C8	BLBC	STATUS, 5\$	
			03	A6	30	8A	000CB	BICB2	#48, 3(NICE)	
03	A6		04		02	F0	000CF	INSV	#2, #0, #4, 3(NICE)	
			04	A6	0A	AE	B0	000D5	MOVW	TIMBUF+6, 4(NICE)

06	A6	04	06	A6	30	8A	000DA	BICB2	#48, 6(NICE)	0589
			07	A6	01	F0	000DE	INSV	#1, #0, #4, 6(NICE)	0590
			08	A6	0C	AE	90 000E4	MOVB	TIMBUF+8, 7(NICE)	0591
08	A6	04	08	A6	30	8A	000E9	BICB2	#48, 8(NICE)	0593
			09	A6	0E	AE	90 000F3	INSV	#1, #0, #4, 8(NICE)	0594
			14	A6	0E	AE	90 000F8	MOVB	TIMBUF+10, 9(NICE)	0595
				56	40	A7	D0 000FC	ADDW2	#14, NICE_TMPDSC	0598
				50	40	A7	9E 00100	MOVL	64(R7), SID	0600
				50		56	D1 00104	MOVAB	64(R7), R0	0602
						0C	13 00107	CPL	SID, R0	
				01	0C	AC	D1 00109	BEQL	3\$	
						17	13 0010D	CPL	INFTYP, #1	0603
				02	0C	AC	D1 0010F	BEQL	4\$	
						11	13 00113	CPL	INFTYP, #2	0604
				7E	80	8F	9A 00115 3\$:	BEQL	4\$	
				18		AE	9F 00119	MOVZBL	#128, -(SP)	0611
				04		AC	DD 0011C	PUSHAB	NICE_TMPDSC	
			0000G	CF		03	FB 0011F	PUSHL	IRB	
						60	11 00124	CALLS	#3, CNF\$BUFR_NICE_MSG	
				50	40	A7	9E 00126 4\$:	BRB	7\$	0612
				50		56	D1 0012A	MOVAB	64(R7), R0	0622
						44	13 0012D	CPL	SID, R0	
08		00		6E		00	2C 0012F	BEQL	6\$	
					1C	AE	00134	MOVCS	#0, (SP), #0, #8, NICE_BUFDC	0630
					20	AE	9F 00136			
				04	AE	8F	9A 00139	PUSHAB	NICE_BUFDC+4	0631
					04	AE	9F 0013E	MOVZBL	#128, 4(SP)	
			0000G	CF		02	FB 00141	PUSHAB	4(SP)	
				40		50	E9 00146 5\$:	CALLS	#2, CNF\$GET_ZVM	
				18	BE	AE	28 00149	BLBC	STATUS, 8\$	
	20	BE		14		AE	28 00149	MOVCS	NICE_TMPDSC, @NICE_TMPDSC+4, @NICE_BUFDC+4	0633
				1C	AE	AF	B0 00150	MOVW	NICE_TMPDSC, NICE_BUFDC	0634
					1C	AE	9F 00155	PUSHAB	NICE_BUFDC	0641
						56	DD 00158	PUSHL	SID	
			0000V	CF		02	FB 0015A	CALLS	#2, SHOW SYSTEM	
				7E	80	8F	9A 0015F	MOVZBL	#128, -(SP)	0642
					20	AE	9F 00163	PUSHAB	NICE_BUFDC	
					04	AC	DD 00166	PUSHAB	NICE_BUFDC	
			0000G	CF		03	FB 00169	PUSHL	IRB	
				56		66	D0 0016E	CALLS	#3, CNF\$BUFR_NICE_MSG	
						B3	11 00171	MOVL	(SID), SID	0643
					18	AE	9F 00173 6\$:	BRB	4\$	0622
				04	AE	8F	9A 00176	PUSHAB	NICE_TMPDSC+4	0649
					04	AE	9F 0017B	MOVZBL	#128, 4(SP)	
			0000G	CF		02	FB 0017E	PUSHAB	4(SP)	
				03		50	E9 00183	CALLS	#2, CNF\$FREE_VM	
				50		01	D0 00186 7\$:	BLBC	STATUS, 8\$	0652
						04	00189 8\$:	MOVL	#1, R0	0653
								RET		

; Routine Size: 394 bytes, Routine Base: \$CODE\$ + 00C6

```

473 0654 1 %SBTTL 'show_system Format System ID info'
474 0655 1 ROUTINE SHOW_SYSTEM (SID, NICEBUF) =
475 0656 1
476 0657 1 +-+
477 0658 1 Format the information in the system ID message stored in
478 0659 1 SID and build a NICE message which will be appended to the
479 0660 1 NICE message for the circuit which is in NICEBUF.
480 0661 1
481 0662 1 sid Pointer to buffer containing a system ID message
482 0663 1
483 0664 1 nicebuf Descriptor of buffer containing circuit NICE message
484 0665 1
485 0666 1 Always return success. There is no error checking.
486 0667 1
487 0668 1 --
488 0669 2 BEGIN
489 0670 2 MAP
490 0671 2 NICEBUF : REF BBLOCK,
491 0672 2 SID : REF BBLOCK;
492 0673 2 LOCAL
493 0674 2 NICE : REF BBLOCK,
494 0675 2 TIMBUF : VECTOR [?, WORD];
495 0676 2
496 0677 2 CNF$TRACE (DBG$C TRACE, $DESCRIPTOR('TRACE'),
497 0678 2 $DESCRIPTOR ?'show_system'));
498 0679 2
499 0680 2 NICE = .NICEBUF [DSC$A_POINTER] + .NICEBUF [DSC$W_LENGTH];
500 0681 2
501 0682 2 |
502 0683 2 | Place in Physical Address parameter
503 0684 2 | as a Hex Image 6
504 0685 2 |
505 0686 2 | 2 bytes Physical Address parameter ID
506 0687 2 | 1 byte Physical Address type = Hex Image (HI-6)
507 0688 2 | 6 bytes Physical Address value
508 0689 2 |
509 0690 2 | (.NICE) <0, 16> = NMASC_PCCN_PHA;
510 0691 2 | BEGIN
511 0692 2 | BIND
512 0693 2 | TYPE = .NICE + 2 : BBLOCK;
513 0694 2 | TYPE [NMASV_PTY_NTY] = NMASC_NTY_H; ! returned as a Hex
514 0695 2 | TYPE [NMASV_PTY_NLE] = NMASC_NLE_IMAGE; ! image.
515 0696 2 | END;
516 0697 2 | (.NICE) <24, 8> = SID$C_ADRLN;
517 0698 2 | CH$MOVE (SID$C_ADRLN, -SID [SID$T_CURADR], (.NICE + 4) );
518 0699 2 | NICE = .NICE + 4 + SID$C_ADRLN; ! Set pointer to end of buffer where next parameter will be

```

```

520 0700 2
521 0701 2
522 0702 2
523 0703 2
524 0704 2
525 0705 2
526 0706 2
527 0707 2
528 0708 2
529 0709 2
530 0710 2
531 0711 2
532 0712 2
533 0713 2
534 0714 2
535 0715 2
536 0716 2
537 0717 2
538 0718 2
539 0719 2
540 0720 2
541 0721 2
542 0722 2
543 0723 2
544 0724 2
545 0725 2
546 0726 2
547 0727 2
548 0728 2
549 0729 2
550 0730 2
551 0731 2
552 0732 2
553 0733 2
554 0734 2
555 0735 2
556 0736 2
557 0737 2
558 0738 2
559 0739 2
560 0740 2
561 0741 2
562 0742 2
563 0743 2
564 0744 2
565 0745 2
566 0746 2
567 0747 2
568 0748 2
569 0749 2
570 0750 2
571 0751 2
572 0752 2
573 0753 2
574 0754 2

```

Place in Last Report parameter as a coded multiple

```

2 bytes Last Report parameter ID
1 byte Last Report type = coded multiple of 5 fields
1 byte Day type = unsigned decimal byte
1 byte Day value
1 byte Month type = Coded byte
1 byte Month coded value
1 byte hour type = unsigned decimal byte
1 byte hour value
1 byte minutes type = unsigned decimal byte
1 byte minutes value
1 byte seconds type = unsigned decimal byte
1 byte seconds value

```

```

(.NICE) <0, 16> = NMASC_PCCN_LRP;
BEGIN
BIND
  CODMUL_TYP = .NICE + 2 : BBLOCK,
  DAY_TYP = .NICE + 3 : BBLOCK,
  MON_TYP = .NICE + 5 : BBLOCK,
  HR_TYP = .NICE + 7 : BBLOCK,
  MIN_TYP = .NICE + 9 : BBLOCK,
  SEC_TYP = .NICE + 11 : BBLOCK;

  CODMUL_TYP [NMA$V_PTY_COD] = TRUE;           ! Last Report is returned as a coded
  CODMUL_TYP [NMA$V_PTY_MUL] = TRUE;           ! multiple.
  CODMUL_TYP [NMA$V_PTY_CLE] = 5;              ! There are five fields in the coded multiple

EXECUTE ($NUMTIM (TIMBUF = TIMBUF, TIMADR = SID [SID$Q_LSTREPORT]));

DAY_TYP [NMA$V_PTY_NTY] = NMASC_NTY_DU;       ! Unsigned decimal
DAY_TYP [NMA$V_PTY_NLE] = 1;                  ! byte.
(.NICE) <32, 85> = .TIMBUF [2];               ! Day

MON_TYP [NMA$V_PTY_COD] = TRUE;               ! Month is returned as a coded value
MON_TYP [NMA$V_PTY_CLE] = 1;                  ! contained in 1 byte.
(.NICE) <48, 85> = .TIMBUF [1];               ! Month

HR_TYP [NMA$V_PTY_NTY] = NMASC_NTY_DU;        ! Unsigned decimal
HR_TYP [NMA$V_PTY_NLE] = 1;                  ! byte.
(.NICE) <64, 8> = .TIMBUF [3];               ! Hour

MIN_TYP [NMA$V_PTY_NTY] = NMASC_NTY_DU;       ! Unsigned decimal
MIN_TYP [NMA$V_PTY_NLE] = 1;                  ! byte.
(.NICE) <80, 85> = .TIMBUF [4];               ! Minute

SEC_TYP [NMA$V_PTY_NTY] = NMASC_NTY_DU;       ! Unsigned decimal
SEC_TYP [NMA$V_PTY_NLE] = 1;                  ! byte.
(.NICE) <96, 85> = .TIMBUF [5];               ! Second

END;
NICE = .NICE + 13;

```

```

576 0755 2
577 0756 2
578 0757 2
579 0758 2
580 0759 2
581 0760 2
582 0761 2
583 0762 2
584 0763 2
585 0764 2
586 0765 2
587 0766 2
588 0767 2
589 0768 2
590 0769 2
591 0770 2
592 0771 2
593 0772 2
594 0773 2
595 0774 2
596 0775 2
597 0776 2
598 0777 2
599 0778 2
600 0779 2
601 0780 2
602 0781 2
603 0782 2
604 0783 2
605 0784 2
606 0785 2
607 0786 2
608 0787 2
609 0788 2
610 0789 2
611 0790 2
612 0791 2
613 0792 2
614 0793 2
615 0794 2

```

```

Place in Maintenance Version parameter
as a coded multiple

2 bytes Maintenance Version parameter ID
1 byte Maintenance Version type = coded multiple of 3 fields
1 byte Version Number type = unsigned decimal byte
1 byte Version Number value
1 byte ECO number type = unsigned decimal byte
1 byte ECO number value
1 byte User ECO number type = unsigned decimal byte
1 byte User ECO value

(.NICE) <0, 16> = NMASC_PCCN_MVR;
BEGIN
BIND
CODMUL_TYP = .NICE + 2 : BBLOCK,
VN_TYP = .NICE + 3 : BBLOCK,
EN_TYP = .NICE + 5 : BBLOCK,
UEN_TYP = .NICE + 7 : BBLOCK;

CODMUL_TYP [NMA$V_PTY_COD] = TRUE;           ! Maintenance Version is returned as a coded
CODMUL_TYP [NMA$V_PTY_MUL] = TRUE;           ! multiple.
CODMUL_TYP [NMA$V_PTY_CLE] = 3;              ! There are three fields in the coded multiple

VN_TYP [NMA$V_PTY_NTY] = NMASC_NTY_DU;       ! Unsigned decimal
VN_TYP [NMA$V_PTY_NLE] = 1;                  ! byte.
(.NICE) <32, 8> = .SID [SID$B_MOPVER];        ! MOP version

EN_TYP [NMA$V_PTY_NTY] = NMASC_NTY_DU;       ! Unsigned decimal
EN_TYP [NMA$V_PTY_NLE] = 1;                  ! byte.
(.NICE) <48, 8> = .SID [SID$B_MOPECO];        ! MOP ECO

UEN_TYP [NMA$V_PTY_NTY] = NMASC_NTY_DU;       ! Unsigned decimal
UEN_TYP [NMA$V_PTY_NLE] = 1;                  ! byte.
(.NICE) <64, 8> = .SID [SID$B_MOPUSRECO];

END;

NICE = .NICE + 9;

```

```

617 0795 2
618 0796 2
619 0797 2
620 0798 2
621 0799 2
622 0800 2
623 0801 2
624 0802 2
625 0803 2
626 0804 2
627 0805 2
628 0806 2
629 0807 2
630 0808 2
631 0809 2
632 0810 2
633 0811 2
634 0812 2
635 0813 2
636 0814 2
637 0815 2
638 0816 2
639 0817 2
640 0818 2
641 0819 2
642 0820 3
643 0821 4
644 0822 4
645 0823 4
646 0824 4
647 0825 4
648 0826 4
649 0827 5
650 0828 5
651 0829 5
652 0830 5
653 0831 5
654 0832 4
655 0833 3
656 0834 2

```

```

Place in Functions parameter
as a coded multiple

2 bytes Functions parameter ID
1 byte Functions type = coded multiple of up to 16 fields
n bytes Function type = Coded byte

up to 16 functions permitted

IF .SID [SID$B_NUMFUNC] NEQ 0
THEN
  BEGIN
  BIND
    CODMUL_TYP = .NICE + 2 : BBLOCK,
    FUNCTIONS = SID [SID$W_FUNCTIONS] : BITVECTOR [16];

    (.NICE) <0, 16> = NMA$C_PCCN_FCT; ! Place in Function paramter ID
    CODMUL_TYP [NMA$V_PTY_COD] = TRUE; ! Report is returned as a coded
    CODMUL_TYP [NMA$V_PTY_MUL] = TRUE; ! multiple.

    CODMUL_TYP [NMA$V_PTY_CLE] = .SID [SID$B_NUMFUNC]; ! 16 fields are permitted in the coded multi
    NICE = .NICE + 3;

  INCR INDEX FROM 0 TO SID$C_MAXFUNC - 1 DO
  BEGIN
  BIND
    FUN_TYP = .NICE : BBLOCK;

  IF .FUNCTIONS [.INDEX]
  THEN
  BEGIN
    FUN_TYP [NMA$V_PTY_COD] = TRUE; ! Functions are returned as a coded value
    FUN_TYP [NMA$V_PTY_CLE] = 1; ! contained in 1 byte.
    (.NICE) <8, 8> = .INDEX; ! Place Function value in NICE message
    NICE = .NICE + 2; ! Advance to end of NICE buffer
  END;
  END;
END;

```

```

658 0835 2
659 0836 2
660 0837 2 Place in Hardware Address parameter
661 0838 2 as a Hex Image 6
662 0839 2 2 bytes Hardware Address parameter ID
663 0840 2 1 byte Hardware Address type = Hex Image (HI-6)
664 0841 2 1 byte Image length = 6
665 0842 2 6 bytes Hardware Address value
666 0843 2
667 0844 2 (.NICE) <0, 16> = NMASC_PCCN_HWA;
668 0845 2 BEGIN
669 0846 2 BIND
670 0847 2 TYPE = .NICE + 2 : BBLOCK;
671 0848 2 TYPE [NMASV_PTY_NTY] = NMASC_NTY_H; ! returned as a Hex
672 0849 2 TYPE [NMASV_PTY_NLE] = NMASC_NLE_IMAGE; ! image
673 0850 2 END;
674 0851 2 (.NICE) <24, 8> = SID$C_ADRLN; ! of length 6
675 0852 2 CH$MOVE (SID$C_ADRLN, SID [SID$T_HRDWADR], (.NICE + 4) );
676 0853 2 NICE = .NICE + 4 + SID$C_ADRLN; ! Set pointer to end of buffer where next parameter
677 0854 2
678 0855 2
679 0856 2
680 0857 2 Place in Device Type parameter
681 0858 2 as a coded value
682 0859 2
683 0860 2 2 bytes Device Type parameter ID
684 0861 2 1 byte Device Type type = coded byte
685 0862 2 1 byte Device Type code
686 0863 2
687 0864 2 (.NICE) <0, 16> = NMASC_PCCN_DTY;
688 0865 2 BEGIN
689 0866 2 BIND
690 0867 2 TYPE = .NICE + 2 : BBLOCK;
691 0868 2 TYPE [NMASV_PTY_COD] = TRUE; ! Device Type is returned as a coded value
692 0869 2 TYPE [NMASV_PTY_CLE] = 1; ! The coded value is 1 byte in length
693 0870 2 END;
694 0871 2 (.NICE) <24, 8> = .SID [SID$B_DEVICE];
695 0872 2 NICE = .NICE + 4; ! Set pointer to end of buffer where Elapsed Time will be pl
696 0873 2
697 0874 2 NICEBUF [DSC$W_LENGTH] = .NICE - .NICEBUF [DSC$A_POINTER];
698 0875 2
699 0876 2 RETURN TRUE;
700 0877 2 ! Routine show_system

```

```

.PSECT $SPLITS, NOWRT, NOEXE, 2
        45 43 41 52 54 00088 P.AAQ: .ASCII \TRACE\
        00080 .BLKB 3
        00000005 00090 P.AAP: .LONG 5
        00000000' 00094 .ADDRESS P.AAQ
6D 65 74 73 79 73 5F 77 6F 68 73 00098 P.AAS: .ASCII \show_system\
        000A3 .BLKB 1
        0000000B 000A4 P.AAR: .LONG 11
        00000000' 000A8 .ADDRESS P.AAS

```


			86	4E22	26	13	CODE	BEQL	4\$		
			66	C0	8F	B0	000E0	MOVW	#20002, (NICE)+	...	0813
86	06		00	21	8F	88	000E5	BISB2	#192, (NICE)+	...	0815
					A7	F0	000E9	INSV	33(R7), #0, #6, (NICE)+	...	0817
	0C	22	A7		50	D4	000EF	CLRL	INDEX	...	0820
			66	80	50	E1	000F1	BBC	INDEX, 34(R7), 3\$...	0825
86	06		C0		8F	88	000F6	BISB2	#128, (NICE)+	...	0828
			86		01	F0	000FA	INSV	#1, #0, #6, (NICE)+	...	0829
	EB		50		50	90	000FF	MOVW	INDEX, (NICE)+	...	0830
			66	4E27	0F	F3	00102	AOBLEQ	#15, INDEX, 2\$...	0820
02	A6		04		8F	B0	00106	MOVW	#20007, (NICE)	...	0844
		02	A6		02	F0	0010B	INSV	#2, #4, #2, 2(NICE)	...	0848
		03	A6		0F	8A	00111	BICB2	#15, 2(NICE)	...	0849
	04	A6	0A		06	90	00115	MOVW	#6, 3(NICE)	...	0851
			A7		06	28	00119	MOVW3	#6, 10(R7), 4(NICE)	...	0852
			56		0A	C0	0011F	ADDL2	#10, NICE	...	0853
			86	4E84	8F	B0	00122	MOVW	#20100, (NICE)+	...	0864
			66	80	8F	88	00127	BISB2	#128, (NICE)	...	0868
86	06		00		01	F0	0012B	INSV	#1, #0, #6, (NICE)+	...	0869
			86	24	A7	90	00130	MOVW	36(R7), (NICE)+	...	0871
	68		56	04	A8	A3	00134	SUBW3	4(R8), NICE, (R8)	...	0874
			50		01	D0	00139	MOVL	#1, R0	...	0876
					04	0013C		RET		...	0877

; Routine Size: 317 bytes, Routine Base: \$CODE\$ + 0250

: 702 0878 1 END
: 703 0879 0 ELUDOM

! End of module CNFSHOW

PSECT SUMMARY

Name	Bytes	Attributes
\$SPLITS	172	NOVEC,NOWRT, RD ,NOEXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)
\$OWNS	16	NOVEC, WRT, RD ,NOEXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)
\$CODES	909	NOVEC,NOWRT, RD , EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)

Library Statistics

File	----- Total	Symbols Loaded	----- Percent	Pages Mapped	Processing Time
_\$255\$DUA28:[SYSLIB]STARLET.L32;1	9776	8	0	581	00:01.0
_\$255\$DUA28:[SHRLIB]NMALIBRY.L32;1	887	23	2	47	00:00.7

COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS\$:CNFSHOW/OBJ=OBJ\$:CNFSHOW MSRC\$:CNFSHOW/UPDATE=(ENHS:CNFSHOW)

: Size: 909 code + 188 data bytes
: Run Time: 00:23.1
: Elapsed Time: 00:39.7
: Lines/CPU Min: 2282
: Lexemes/CPU-Min: 19848
: Memory Used: 182 pages
: Compilation Complete

001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
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