


```

CCCCCCCC 000000 BBBB8888 AAAAAA CCCCCCCC CCCCCCCC DDDDDDDD AAAAAA YY YY
CCCCCCCC 000000 BBBB8888 AAAAAA CCCCCCCC CCCCCCCC DDDDDDDD AAAAAA YY YY
CC        00    00 BB      BB AA      AA CC        CC        DD        DD AA      AA YY YY
CC        00    00 BB      BB AA      AA CC        CC        DD        DD AA      AA YY YY
CC        00    00 BB      BB AA      AA CC        CC        DD        DD AA      AA YY YY
CC        00    00 BB      BB AA      AA CC        CC        DD        DD AA      AA YY YY
CC        00    00 BBBB8888 AA      AA CC        CC        DD        DD AA      AA YY YY
CC        00    00 BBBB8888 AA      AA CC        CC        DD        DD AA      AA YY YY
CC        00    00 BB      BB AAAAAAAAAA CC        CC        DD        DD AAAAAAAAAA YY YY
CC        00    00 BB      BB AAAAAAAAAA CC        CC        DD        DD AAAAAAAAAA YY YY
CC        00    00 BB      BB AA      AA CC        CC        DD        DD AA      AA YY YY
CC        00    00 BB      BB AA      AA CC        CC        DD        DD AA      AA YY YY
CC        00    00 BB      BB AA      AA CC        CC        DD        DD AA      AA YY YY
CCCCCCCC 000000 BBBB8888 AA      AA CCCCCCCC CCCCCCCC DDDDDDDD AA      AA YY YY
CCCCCCCC 000000 BBBB8888 AA      AA CCCCCCCC CCCCCCCC DDDDDDDD AA      AA YY YY

```

```

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
LLLLLLLLLL IIIIII SSSSSSSS
LLLLLLLLLL IIIIII SSSSSSSS

```

```

1 0001 0 MODULE COBSACC_DAY (
2 0002 0 IDENT = '1-006' ! file: COBACCDAY.B32 Edit:RKR1006
3 0003 0 ) =
4 0004 1 BEGIN
5 0005 1
6 0006 1
7 0007 1
8 0008 1 *****
9 0009 1 *
10 0010 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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27 0027 1 *
28 0028 1 *
29 0029 1 *****
30 0030 1
31 0031 1 ++
32 0032 1 FACILITY: COBOL SUPPORT
33 0033 1
34 0034 1 ABSTRACT
35 0035 1
36 0036 1
37 0037 1
38 0038 1 ENVIRONMENT: Vax-11 User Mode
39 0039 1
40 0040 1 AUTHOR: MLJ , CREATION DATE: 16-JAN-1979
41 0041 1
42 0042 1 MODIFIED BY:
43 0043 1
44 0044 1 1-001 - Original. MLJ 16-JAN-1979
45 0045 1 1-002 - Added boilerplate and comments. RKR 18-JULY-1979
46 0046 1 1-003 - Declare psects via library macro. RKR 23-AUG-1979
47 0047 1 1-004 - Change symbolic name of LIBRARY. RKR 1-OCT-79
48 0048 1 1-005 - Cosmetic changes. RKR 18-OCT-79
49 0049 1 1-006 - Fix computation of number of days since 01-JAN so that
50 0050 1 computation does not fail when this delta is 0. (i.e.
51 0051 1 on 01-JAN-xxxx). RKR 11-JAN-81
52 0052 1
53 0053 1 --
54 0054 1
55 0055 1 !<BLF/PAGE>

```

```
57 0056 1 |  
58 0057 1 | SWITCHES  
59 0058 1 |  
60 0059 1 |  
61 0060 1 SWITCHES ADDRESSING_MODE (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);  
62 0061 1 |  
63 0062 1 |  
64 0063 1 | LINKAGES  
65 0064 1 |  
66 0065 1 | NONE  
67 0066 1 |  
68 0067 1 | TABLE OF CONTENTS:  
69 0068 1 |  
70 0069 1 FORWARD ROUTINE  
71 0070 1 |  
72 0071 1 COBSACC_DAY : NOVALUE ;  
73 0072 1 |  
74 0073 1 | INCLUDE FILES  
75 0074 1 |  
76 0075 1 REQUIRE 'RTLIN:RTLPSECT' ; ! Macros for declaring psects  
77 0170 1 LIBRARY 'RTLSTARLE';  
78 0171 1 |  
79 0172 1 |  
80 0173 1 | MACROS  
81 0174 1 |  
82 0175 1 | NONE  
83 0176 1 |  
84 0177 1 | EQUATED SYMBOLS  
85 0178 1 |  
86 0179 1 | NONE  
87 0180 1 |  
88 0181 1 | PSECT DECLARATIONS:  
89 0182 1 |  
90 0183 1 DECLARE_PSECTS (COB) ; ! Psects for COBS facility  
91 0184 1 |
```

```

93 0185 1 GLOBAL ROUTINE COBSACC_DAY(DST): NOVALUE=
94 0186 1
95 0187 1 ++ FUNCTIONAL DESCRIPTION
96 0188 1
97 0189 1 Returns date as YYDD
98 0190 1
99 0191 1 FORMAL PARAMETERS:
100 0192 1
101 0193 1 DST.wt.ds Address of string descriptor to receive date
102 0194 1
103 0195 1 IMPLICIT INPUTS:
104 0196 1
105 0197 1 Date as supplied by $ASCTIM
106 0198 1
107 0199 1 IMPLICIT OUTPUTS:
108 0200 1
109 0201 1 NONE
110 0202 1
111 0203 1 ROUTINE VALUE:
112 0204 1 COMPLETION CODES:
113 0205 1
114 0206 1 NONE
115 0207 1
116 0208 1 SIDE EFFECTS:
117 0209 1
118 0210 1 NONE
119 0211 1
120 0212 1 --
121 0213 1
122 0214 2 BEGIN
123 0215 2 MAC
124 0216 2 DST: REF BLOCK[,BYTE]; ! Pointer to destination descriptor
125 0217 2 LOCAL
126 0218 2 SYSTIM: VECTOR[2], ! Buffer for $GETTIM
127 0219 2 JAN1TIM: VECTOR[2], ! Buffer for $BINTIM
128 0220 2 TIMBUF: BLOCK[23,BYTE], ! Buffer for $ASCTIM
129 0221 2 BUFFER: BLOCK[5,BYTE], ! Buffer for assembling output
130 0222 2 TIMDESC: VECTOR[2], ! Descriptor for TIMBUF
131 0223 2 CTLDISC: VECTOR[2], ! Descriptor for FAO control
132 0224 2 BUFDESC: VECTOR[2], ! Descriptor for FAO output
133 0225 2 N; ! Number of days since 01-Jan
134 0226 2
135 0227 2
136 0228 2 ! Get system date and time.
137 0229 2
138 0230 2 $GETTIM(TIMADR=SYSTIM); ! Get time in 64-bit format
139 0231 2
140 0232 2
141 0233 2 ! Convert the system date and time to ASCII.
142 0234 2
143 0235 2 TIMDESC[0] = 23; ! Set up descriptor
144 0236 2 TIMDESC[1] = TIMBUF;
145 0237 2 $ASCTIM(TIMBUF=TIMDESC, TIMADR=SYSTIM); ! Get ASCII representation
146 0238 2
147 0239 2
148 0240 2 ! Save the year of century.
149 0241 2

```

```
0242 BUFFER[0,0,16,0] = .TIMBUF[9,0,16,0];
0243
0244
0245 ! Replace the system date and time by 01-Jan of the same year and
0246 ! reconvert to 64-bit format.
0247
0248 TIMBUF[0,0,32,0] = '01-J'; ! Change to 01-Jan
0249 TIMBUF[4,0,16,0] = 'AN'; !
0250 $BINTIM(TIMBUF=TIMDESC, TIMADR=JAN1TIM); ! Reconvert to 64-bit format
0251
0252
0253 ! Compute the difference JAN1TIM - SYSTIM. This yields a delta-time
0254 ! value for the number of days since 01-Jan.
0255
0256 IF .JAN1TIM[0] LSSU .SYSTIM[0] THEN JAN1TIM[1] = .JAN1TIM[1] - 1;
0257 JAN1TIM[0] = .JAN1TIM[0] - .SYSTIM[0];
0258 JAN1TIM[1] = .JAN1TIM[1] - .SYSTIM[1];
0259
0260 ! If we're dealing with a date of 01-JAN-xx, the above sequence of
0261 ! conversions will leave us with a value of zero. Unfortunately,
0262 ! zero is positive and the following conversion will attempt to
0263 ! deal with it as a date, rather than a delta time. To correct for
0264 ! this, if the high-order part of the computed JAN1TIM is positive
0265 ! we force it negative to insure interpretation as a delta time.
0266
0267 IF .JAN1TIM[1] GEQ 0 THEN JAN1TIM[1] = -1 ;
0268
0269 ! Convert the delta-time value to ASCII. The number of days is then
0270 ! one less than the desired Julian date.
0271
0272 $ASCTIM(TIMBUF=TIMDESC, TIMADR=JAN1TIM);
0273
0274
0275 ! Convert the number of days to binary.
0276
0277 N = 0;
0278 INCR I FROM 0 TO 3 DO
0279 BEGIN
0280 IF .TIMBUF[.1,0,8,0] NEQ %C' '
0281 THEN
0282 N = .N * 10 + .TIMBUF[.1,0,8,0] - %C'0';
0283 END;
0284
0285
0286 ! Convert this value plus one into the output string.
0287
0288 CTLDESC[0] = 4;
0289 CTLDESC[1] = UPLIT('!3ZL');
0290 BUFDESC[0] = 3;
0291 BUFDESC[1] = BUFFER[2,0,0,0];
0292 $FAO(CTLDESC, 0, BUFDESC, .N + 1);
0293 CH$COPY(5, BUFFER, %C' ', .DST[DSC$W_LENGTH], .DST[DSC$A_POINTER]);
0294 END;
```

```
.TITLE COBSACC_DAY
.IDENT \1-006\
```

| | | | | .PSECT | _COB\$CODE,NOWRT, SHR, PIC,2 | | | | | |
|----|-----------|-----------|-------------|--------|------------------------------|----------------------------------|------------------|-------------------------------|---------------------|------|
| | 4C | 5A | 33 21 00000 | P.AAA: | .ASCII | \!3ZL\ | | | | |
| | | | | | .EXTRN | SYSS\$GETTIM, SYSS\$ASCTIM | | | | |
| | | | | | .EXTRN | SYSS\$BINTIM, SYSS\$FAO | | | | |
| | | | 007C 00000 | | .ENTRY | COBSACC DAY, Save R2,R3,R4,R5,R6 | 0185 | | | |
| | 56 | 00000000G | 00 | 9E | 00002 | MOVAB | SYSS\$ASCTIM, R6 | | | |
| | 5E | B8 | AE | 9E | 00009 | MOVAB | -72(SP), SP | | | |
| | | 40 | AE | 9F | 0000D | PUSHAB | SYSTEM | 0230 | | |
| | 00000000G | 00 | 01 | FB | 00010 | CALLS | #1, SYSS\$GETTIM | | | |
| | 10 | AE | 17 | D0 | 00017 | MOVL | #23, TIMDESC | 0235 | | |
| | 14 | AE | 20 | AE | 9E | 0001B | MOVAB | TIMBUF, TIMDESC+4 | 0236 | |
| | | | | 7E | D4 | 00020 | CLRL | -(SP) | 0237 | |
| | | | | 44 | AE | 9F | 00022 | PUSHAB | SYSTEM | |
| | | | | 18 | AE | 9F | 00025 | PUSHAB | TIMDESC | |
| | | | | 7E | D4 | 00029 | CLRL | -(SP) | | |
| | 66 | | 04 | FB | 0002A | CALLS | #4, SYSS\$ASCTIM | | | |
| | 18 | AE | 29 | AE | B0 | 0002D | MOVW | TIMBUF+9, BUFFER | 0242 | |
| | 20 | AE | 4A2D3' 30 | 8F | D0 | 00032 | MOVL | #1244475696, TIMBUF | 0248 | |
| | 24 | AE | 4E41 | 8F | B0 | 0003A | MOVW | #20033, TIMBUF+4 | 0249 | |
| | | | | 38 | AE | 9F | 00040 | PUSHAB | JANITIM | 0250 |
| | | | | 14 | AE | 9F | 00043 | PUSHAB | TIMDESC | |
| | 00000000G | 00 | 02 | FB | 00046 | CALLS | #2, SYSS\$BINTIM | | | |
| | 40 | AE | 38 | AE | D1 | 0004D | CPL | JANITIM, SYSTEM | 0256 | |
| | | | | 03 | 1E | 00052 | BGEQU | 1\$ | | |
| | | | | 3C | AE | D7 | 00054 | DECL | JANITIM+4 | |
| | 38 | AE | 40 | AE | C2 | 00057 | SUBL2 | SYSTEM, JANITIM | 0257 | |
| | 3C | AE | 44 | AE | C2 | 0005C | SUBL2 | SYSTEM+4, JANITIM+4 | 0258 | |
| | | | | 04 | 19 | 00061 | BLSS | 2\$ | 0267 | |
| | 3C | AE | | 01 | CE | 00063 | MNEGL | #1, JANITIM+4 | | |
| | | | | 7E | D4 | 00067 | CLRL | -(SP) | 0272 | |
| | | | | 3C | AE | 9F | 00069 | PUSHAB | JANITIM | |
| | | | | 18 | AE | 9F | 0006C | PUSHAB | TIMDESC | |
| | | | | 7E | D4 | 0006F | CLRL | -(SP) | | |
| | 66 | | | 04 | FB | 00071 | CALLS | #4, SYSS\$ASCTIM | | |
| | | | | 50 | D4 | 00074 | CLRL | N | 0277 | |
| | | | | 52 | D4 | 00076 | CLRL | I | 0278 | |
| | 53 | | 20 | AE42 | 9A | 00078 | MOVZBL | TIMBUF[I], R3 | 0280 | |
| | 20 | | | 53 | 91 | 0007D | CMPB | R3, #32 | | |
| | | | | 09 | 13 | 00080 | BEQL | 4\$ | | |
| 51 | 50 | | | 0A | C5 | 00082 | MULL3 | #10, N, R1 | 0282 | |
| E9 | 50 | | | D0 | A341 | 9E | 00086 | MOVAB | -48(R3)[R1], N | |
| | 52 | | | 03 | F3 | 0008B | AOBLEQ | #3, I, 3\$ | 0278 | |
| | 08 | AE | | 04 | D0 | 0008F | MOVL | #4, CTLDESC | 0288 | |
| | 0C | AE | | CF | 9E | 00093 | MOVAB | P.AAA, CTLDESC+4 | 0289 | |
| | 6E | AE | | 03 | D0 | 00099 | MOVL | #3, BUFDESC | 0290 | |
| | 04 | AE | | 1A | AE | 9E | 0009C | MOVAB | BUFFER+2, BUFDESC+4 | 0291 |
| | | | | 01 | A0 | 9F | 000A1 | PUSHAB | 1(N) | 0292 |
| | | | | 04 | AE | 9F | 000A4 | PUSHAB | BUFDESC | |
| | | | | 7E | D4 | 000A7 | CLRL | -(SP) | | |
| | | | | 14 | AE | 9F | 000A9 | PUSHAB | CTLDESC | |
| | 00000000G | 00 | | 04 | FB | 000AC | CALLS | #4, SYSS\$FAO | | |
| | 60 | | | 04 | AC | D0 | 000B3 | MOVL | DSI, R0 | 0293 |
| | 20 | 18 | AE | 05 | 2C | 000B7 | MOVCS | #5, BUFFER, #32, (R0), @4(R0) | | |

COBSACC_DAY
1-006

E 12
15-Sep-1984 23:48:04
14-Sep-1984 12:10:20

VAX-11 Bliss-32 V4.0-742
[COBRTL.SRC]COBACCDAY.B32;1

Page 6
(3)

04 B0 000BD
04 000BF RET

: 0294

: Routine Size: 192 bytes, Routine Base: _COB\$CODE + 0004

: 203 0295 1
: 204 0296 0 END ELUDOM

PSECT SUMMARY

| Name | Bytes | Attributes |
|------------|-------|--|
| _COB\$CODE | 196 | NOVEC, NOWRT, RD, EXE, SHR, LCL, REL, CON, PIC, ALIGN(2) |

Library Statistics

| File | ----- Total | Symbols Loaded | ----- Percent | Pages Mapped | Processing Time |
|-------------------------------------|----------------|-------------------|------------------|-----------------|--------------------|
| _\$255\$DUA28:[SYSLIB]STARLET.L32;1 | 9776 | 8 | 0 | 581 | 00:00.8 |

COMMAND QUALIFIERS

BLISS/CHECK=(FIELD, INITIAL, OPTIMIZE)/NOTRACE/LIS=LISS:COBACCDAY/OBJ=OBJ\$:COBACCDAY MSRCS:COBACCDAY/UPDATE=(ENHS:COBACCDAY)

: Size: 192 code + 4 data bytes
: Run Time: 00:04.2
: Elapsed Time: 00:21.5
: Lines/CPU Min: 4208
: Lexemes/CPU-Min: 32331
: Memory Used: 73 pages
: Compilation Complete

