COBRTL

COBACCDAY

LIS

```
    1    0001  0  MODULE COB$ACC_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                         *
   11    0011  1  !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.          *
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   19    0019  1  !*  TRANSFERRED.                                                     *
   20    0020  1  !*                                                                  *
   21    0021  1  !*  THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE  *
   22    0022  1  !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT  *
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   26    0026  1  !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.          *
   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>
```

COB$ACC_DAY
1-006

N 11
15-Sep-1984 23:48:04   VAX-11 Bliss-32 V4.0-742
14-Sep-1984 12:10:20   [COBRTL.SRC]COBACCDAY.B32;1

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```
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        COB$ACC_DAY : NOVALUE ;
73    0072  1
74    0073  1  ! INCLUDE FILES
75    0074  1  !
76    0075  1  REQUIRE 'RTLIN:RTLPSECT' ;              ! Macros for declaring psects
77    0170  1  LIBRARY 'RTLSTARLE';
78    0171  1
79    0172  1  !
80    0173  1  ! MACROS
81    0174  1  !
82    0175  1  !      NONE
83    0176  1  !
84    0177  1  ! EQUATED SYMBOLS
85    0178  1  !
86    0179  1  !      NONE
87    0180  1  !
88    0181  1  ! PSECT DECLARATIONS:
89    0182  1  !
90    0183  1  DECLARE_PSECTS (COB) ;                   ! Psects for COB$ facility
91    0184  1
```

COB$ACC_DAY
1-006

B 12
15-Sep-1984 23:48:04   VAX-11 Bliss-32 V4.0-742
14-Sep-1984 12:10:20   [COBRTL.SRC]COBACCDAY.B32;1

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```
  93   0185  1  GLOBAL ROUTINE COB$ACC_DAY(DST): NOVALUE=
  94   0186  1
  95   0187  1  !++       FUNCTIONAL DESCRIPTION
  96   0188  1
  97   0189  1  !         Returns date as YYDDD
  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      MAP
 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          CTLDESC:          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      !
```

COB$ACC_DAY
1-006

C 12
15-Sep-1984 23:48:04   VAX-11 Bliss-32 V4.0-742
14-Sep-1984 12:10:20   [COBRTL.SRC]COBACCDAY.B32;1

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```
150   0242  2         BUFFER[0,0,16,0] = .TIMBUF[9,0,16,0];
151   0243
152   0244
153   0245  2         ! Replace the system date and time by 01-Jan of the same year and
154   0246  2         ! reconvert to 64-bit format.
155   0247
156   0248  2         TIMBUF[0,0,32,0] = '01-J';                 ! Change to 01-Jan
157   0249  2         TIMBUF[4,0,16,0] = 'AN';                   ! ...
158   0250  2         $BINTIM(TIMBUF=TIMDESC, TIMADR=JAN1TIM);   ! Reconvert to 64-bit format
159   0251
160   0252
161   0253  2         ! Compute the difference JAN1TIM - SYSTIM.  This yields a delta-time
162   0254  2         ! value for the number of days since 01-Jan.
163   0255
164   0256  2         IF .JAN1TIM[0] LSSU .SYSTIM[0] THEN JAN1TIM[1] = .JAN1TIM[1] - 1;
165   0257  2         JAN1TIM[0] = .JAN1TIM[0] - .SYSTIM[0];
166   0258  2         JAN1TIM[1] = .JAN1TIM[1] - .SYSTIM[1];
167   0259
168   0260  2         ! If we're dealing with a date of 01-JAN-xx, the above sequence of
169   0261  2         ! conversions will leave us with a value of zero.  Unfortunately,
170   0262  2         ! zero is positive and the following conversion will attempt to
171   0263  2         ! deal with it as a date, rather than a delta time.  To correct for
172   0264  2         ! this, if the high-order part of the computed JAN1TIM is postive
173   0265  2         ! we force it negative to insure interpretation as a delta time.
174   0266
175   0267  2         IF .JAN1TIM[1] GEQ 0 THEN JAN1TIM[1] = -1 ;
176   0268
177   0269  2         ! Convert the delta-time value to ASCII.  The number of days is then
178   0270  2         ! one less than the desired Julian date.
179   0271  2         !
180   0272  2         $ASCTIM(TIMBUF=TIMDESC, TIMADR=JAN1TIM);
181   0273
182   0274
183   0275  2         ! Convert the number of days to binary.
184   0276  2         !
185   0277  2         N = 0;
186   0278  2         INCR I FROM 0 TO 3 DO
187   0279  2             BEGIN
188   0280  3             IF .TIMBUF[.I,0,8,0] NEQ %C' '
189   0281  3             THEN
190   0282  3                 N = .N * 10 + .TIMBUF[.I,0,8,0] - %C'0';
191   0283  2             END;
192   0284
193   0285
194   0286  2         ! Convert this value plus one into the output string.
195   0287  2         !
196   0288  2         CTLDESC[0] = 4;
197   0289  2         CTLDESC[1] = UPLIT('!3ZL');
198   0290  2         BUFDESC[0] = 3;
199   0291  2         BUFDESC[1] = BUFFER[2,0,0,0];
200   0292  2         $FAO(CTLDESC, 0, BUFDESC, .N + 1);
201   0293  2         CH$COPY(5, BUFFER, %C' ', .DST[DSC$W_LENGTH], .DST[DSC$A_POINTER]);
202   0294  1         END;


                                                  .TITLE   COB$ACC_DAY
                                                  .IDENT   \1-006\
```

COB$ACC_DAY
1-006

D 12
15-Sep-1984 23:48:04   VAX-11 Bliss-32 V4.0-742
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```
                                                    .PSECT  _COB$CODE,NOWRT,  SHR,  PIC,2

                    4C  5A  33  21  00000 P.AAA:    .ASCII  \!3ZL\                              ;

                                                    .EXTRN  SYS$GETTIM, SYS$ASCTIM
                                                    .EXTRN  SYS$BINTIM, SYS$FAO

                                    007C 00000      .ENTRY  COB$ACC_DAY, Save R2,R3,R4,R5,R6    ; 0185
              56 00000000G  00  9E 00002            MOVAB   SYS$ASCTIM, R6
              5E        B8  AE  9E 00009            MOVAB   -72(SP), SP
                        40  AE  9F 0000D            PUSHAB  SYSTIM
        00000000G  00       01  FB 00010            CALLS   #1, SYS$GETTIM                       ; 0230
              10  AE            17  D0 00017        MOVL    #23, TIMDESC                         ; 0235
              14  AE    20  AE  9E 0001B            MOVAB   TIMBUF, TIMDESC+4                    ; 0236
                        7E  D4 00020                CLRL    -(SP)                               ; 0237
                        44  AE  9F 00022            PUSHAB  SYSTIM
                        18  AE  9F 00025            PUSHAB  TIMDESC
                        7E  D4 00028                CLRL    -(SP)
              18  66        04  FB 0002A            CALLS   #4, SYS$ASCTIM
              18  AE    AE  B0 0002D                MOVW    TIMBUF+9, BUFFER                     ; 0242
              20  AE 4A2D3150 8F  D0 00032          MOVL    #1244475696, TIMBUF                  ; 0248
              24  AE    4E41 8F  B0 0003A            MOVW    #20033, TIMBUF+4                     ; 0249
                        38  AE  9F 00040            PUSHAB  JAN1TIM                             ; 0250
                        14  AE  9F 00043            PUSHAB  TIMDESC
        00000000G  00       02  FB 00046            CALLS   #2, SYS$BINTIM
              40  AE    38  AE  D1 0004D            CMPL    JAN1TIM, SYSTIM                     ; 0256
                        03  1E 00052                BGEQU   1$
                    3C  AE  D7 00054                DECL    JAN1TIM+4
              38  AE    40  AE  C2 00057 1$:        SUBL2   SYSTIM, JAN1TIM                     ; 0257
              3C  AE    44  AE  C2 0005C            SUBL2   SYSTIM+4, JAN1TIM+4                 ; 0258
                        04  19 00061                BLSS    2$                                 ; 0267
              3C  AE        01  CE 00063            MNEGL   #1, JAN1TIM+4
                        7E  D4 00067 2$:            CLRL    -(SP)                               ; 0272
                    3C  AE  9F 00069                PUSHAB  JAN1TIM
                    18  AE  9F 0006C                PUSHAB  TIMDESC
                        7E  D4 0006F                CLRL    -(SP)
              66            04  FB 00071            CALLS   #4, SYS$ASCTIM
                        50  D4 00074                CLRL    N                                   ; 0277
                        52  D4 00076                CLRL    I                                   ; 0278
              53    20 AE42 9A 00078 3$:            MOVZBL  TIMBUF[I], R3                        ; 0280
                    20        53  91 0007D          CMPB    R3, #32
                        09  13 00080                BEQL    4$
        51            50  0A  C5 00082              MULL3   #10, N, R1                          ; 0282
        E9            50  DO A341 9E 00086          MOVAB   -48(R3)[R1], N
                    52    03  F3 0008B 4$:          AOBLEQ  #3, I, 3$                           ; 0278
              08  AE    04  D0 0008F                MOVL    #4, CTLDESC                          ; 0288
              0C  AE  FF65 CF  9E 00093             MOVAB   P.AAA, CTLDESC+4                     ; 0289
              6E        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, SYS$FAO
                        50  AC  D0 000B3            MOVL    DSf, R0                             ; 0293
        60    20    18  AE    05  2C 000B7          MOVC5   #5, BUFFER, #32, (R0), a4(R0)
```

COB$ACC_DAY
1-006

E 12
15-Sep-1984 23:48:04   VAX-11 Bliss-32 V4.0-742
14-Sep-1984 12:10:20   [COBRTL.SRC]COBACCDAY.B32;1

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```
                              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

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


:   COMMAND QUALIFIERS

```
:
:     BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LIS$:COBACCDAY/OBJ=OBJ$:COBACCDAY MSRC$:COBACCDAY/UPDATE=(ENH$: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
```