


```

LL      IIIIII  BBBB8888  DDDDDDDD  AAAAAA  YY      YY  WW      WW  KK      KK
LL      IIIIII  88888888  DDDDDDDD  AAAAAA  YY      YY  WW      WW  KK      KK
LL      II      BB      BB  DD      DD  AA      AA  YY      YY  WW      WW  KK      KK
LL      II      BB      BB  DD      DD  AA      AA  YY      YY  WW      WW  KK      KK
LL      II      BB      BB  DD      DD  AA      AA  YY      YY  WW      WW  KK      KK
LL      II      88888888  DD      DD  AA      AA  YY      YY  WW      WW  KK      KK
LL      II      88888888  DD      DD  AA      AA  YY      YY  WW      WW  KK      KK
LL      II      BB      BB  DD      DD  AA      AA  YY      YY  WW      WW  KK      KK
LL      II      BB      BB  DD      DD  AA      AA  YY      YY  WW      WW  KK      KK
LL      II      BB      BB  DD      DD  AA      AA  YY      YY  WWW     WWW     KK      KK
LLLLLLLLLLLL  IIIIII  88888888  DDDDDDDD  AA      AA  YY      YY  WWW     WWW     KK      KK
LLLLLLLLLLLL  IIIIII  88888888  DDDDDDDD  AA      AA  YY      YY  WW      WW  KK      KK

```

```

LL      IIIIII  SSSSSSSS
LL      IIIIII  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
LLLLLLLLLLLL  IIIIII  SSSSSSSS
LLLLLLLLLLLL  IIIIII  SSSSSSSS

```

(2) 44
(3) 52
(4) 81

HISTORY ; Detailed Current Edit History
DECLARATIONS
LIBSDAY_OF_WEEK -

```

0000 1 .TITLE LIB$DAY_OF_WEEK ; Find numeric day of week
0000 2 .IDENT 'V03-002' ; EDIT:LEB1002
0000 3 :
0000 4 :*****
0000 5 :*
0000 6 :* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
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0000 23 :*
0000 24 :*
0000 25 :*****
0000 26 :
0000 27 :
0000 28 : FACILITY: Language-independent support library
0000 29 : ++
0000 30 : ABSTRACT:
0000 31 :
0000 32 :
0000 33 : --
0000 34 :
0000 35 : VERSION: 1
0000 36 :
0000 37 : HISTORY:
0000 38 :
0000 39 : AUTHOR:
0000 40 :
0000 41 : Herb Jacobs November 1981
0000 42 :

```

LIB\$DAY_OF_WEEK
V03-002

C 8
: Find numeric day of week 15-SEP-1984 23:55:35 VAX/VMS Macro V04-00 Page 2
HISTORY ; Detailed Current Edit History 6-SEP-1984 11:05:15 [LIBRTL.SRC]LIBDAYWK.MAR;1 (2)

0000 44 .SBTTL HISTORY ; Detailed Current Edit History
0000 45
0000 46 ; EDIT HISTORY:
0000 47 :
0000 48 : 1-001 - Add in EDIT field at beginning of module. LEB 15-Dec-1983
0000 49 : 1-002 - Make LIB\$_INVARG an EXTERNAL symbol
0000 50 :

```
0000 52      .SBTTL  DECLARATIONS
0000 53
0000 54 :
0000 55 : INCLUDE FILES:
0000 56 :
0000 57 :
0000 58 :
0000 59 : EXTERNAL SYMBOLS:
0000 60 :
0000 61
0000 62      .EXTRN      LIB$_INVARG      ; error code
0000 63
0000 64 :
0000 65 : MACROS:
0000 66 :
0000 67 :
0000 68 :
0000 69 : PSECT DECLARATIONS:
0000 70 :
0000 71
00000000 72      .PSECT  _LIB$CODE      PIC, SHR, LONG, EXE, NOWRT
0000 73
0000 74 :
0000 75 : EQUATED SYMBOLS:
0000 76 :
00000002 0000 77
00000002 0000 78      offset = 7-5      ; make monday 1, tuesday 2, etc.
0000 79
```

```

0000 81      .SBTTL LIB$DAY_OF_WEEK -
0000 82
0000 83      ++
0000 84      : FUNCTIONAL DESCRIPTION:
0000 85      :
0000 86      : This routine returns the numeric day of the week for an input time
0000 87      : value.  If the input value is omitted, the current day of the week
0000 88      : today, is returned.  Monday is considered day 1, and Sunday day
0000 89      : 7.
0000 90
0000 91      : CALLING SEQUENCE:
0000 92      :
0000 93      :     ret_status = LIB$DAY_OF_WEEK      ( time_64_bit_Q, output_day_L)
0000 94
0000 95      : INPUT PARAMETERS:
0000 96      :
0000 97      :     time_64_bit_Q - Address of a quadword representing time or 0
0000 98
0000 99      : IMPLICIT INPUTS:
0000 100     :
0000 101     :     If time_64_bit_Q is 0, then the current system time is used.
0000 102
0000 103     : OUTPUT PARAMETERS:
0000 104     :
0000 105     :     output_day_L - Address of a longword to receive the day
0000 106
0000 107     : IMPLICIT OUTPUTS:
0000 108     :
0000 109     :     NONE
0000 110
0000 111     : COMPLETION CODES:
0000 112     :
0000 113     :     SSS_NORMAL      - success
0000 114
0000 115     : SIDE EFFECTS:
0000 116     :
0000 117     :     NONE
0000 118
0000 119     :--
0000 120

```

```

0000 121     .entry      -
50 00000000'8F 0000 121 lib$day_of_week, ^M<>
      6C 02 91 0009 122     movl      #lib$_invarg,r0 ; assume error
      3E 1A 000C 123     cmpb      #2,(ap) ; are there at least 2 arguments?
51 04 AC D0 000E 124     bgtru    100$ ; branch if not
      0F 12 0012 125     movl      4(ap),r1 ; get address of quadword time
      51 7E 7E 0014 126     bneq     20$ ; branch if specified
      29 50 E9 0017 127     movaq   -(sp),r1 ; area to receive time in, r1 addr of area
      50 61 7D 0020 128     $gettim_s(r1) ; get current time
51 50 50 23C34600 8F 7B 0026 129     blbc    r0,100$ ; branch if error
      51 D4 002F 130 20$: movq     (r1),r0 ; get the time
51 50 50 000005A0 8F 7B 0031 131     ediv    #60*10*1000*1000,r0,r0,r1 ; get the time in minutes
      50 02 C0 003A 132     clr     r1 ; time in minutes from 1858 is only 32 bits
      51 D4 003D 133     ediv    #24*60,r0,r0,r1 ; time in days into r0
51 50 50 08 BC 51 07 7B 003F 134     add     #offset,r0 ; account for Nov 17, 1858 being a Wednesday
      01 C1 0044 135     clr     r1 ; again only 32 bits
      07 7B 003F 136     ediv    #7,r0,r0,r1 ; r0 number of weeks, r1 day of week
      01 C1 0044 137     addl3   #1,r1,@8(ap) ; store the day number

```

LIBSDAY_OF_WEEK
V03-002

; Find numeric day of week
LIBSDAY_OF_WEEK -

F 8

15-SEP-1984 23:55:35 VAX/VMS Macro V04-00
6-SEP-1984 11:05:15 [LIBRTL.SRC]LIBDAYWK.MAR;1

Page 5
(4)

```
50 01 DC 0049 138      movl  #1,r0
      04 004C 139 100$: ret
      004D 140
      004D 141      .end
```

```
; set success
; exit, clean stack if needed
```


LIBSDAY_OF_WEEK
Symbol Table

; Find numeric day of week

G 8

15-SEP-1984 23:55:35
6-SEP-1984 11:05:15

VAX/VMS Macro V04-00
[LIBRTL.SRC]LIBDAYWK.MAR;1

Page 6
(4)

LIBSDAY_OF_WEEK 00000000 RG 01
LIBS_INVARG ***** X 00
OFFSET = 00000002
SYSSGETTIM ***** G 01

! Psect synopsis !

PSECT name	Allocation	PSECT No.	Attributes
ABS	00000000 (0.)	00 (0.)	NOPIC USR
_LIB\$CODE	0000004D (77.)	01 (1.)	PIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE

! Performance indicators !

Phase	Page faults	CPU Time	Elapsed Time
Initialization	31	00:00:00.05	00:00:02.86
Command processing	113	00:00:00.32	00:00:03.81
Pass 1	99	00:00:00.35	00:00:03.96
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	40	00:00:00.19	00:00:01.83
Symbol table output	2	00:00:00.01	00:00:00.11
Psect synopsis output	2	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	289	00:00:00.95	00:00:12.59

The working set limit was 900 pages.
1906 bytes (4 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 4 non-local and 2 local symbols.
141 source lines were read in Pass 1, producing 11 object records in Pass 2.
2 pages of virtual memory were used to define 2 macros.

! Macro library statistics !

Macro library name	Macros defined
_\$255\$DUA28:[SYSLIB]STARLET.MLB;2	2

12 GETS were required to define 2 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=LIS\$:LIBDAYWK/OBJ=OBJ\$:LIBDAYWK MSRC\$:LIBDAYWK/UPDATE=(ENH\$:LIBDAYWK)

