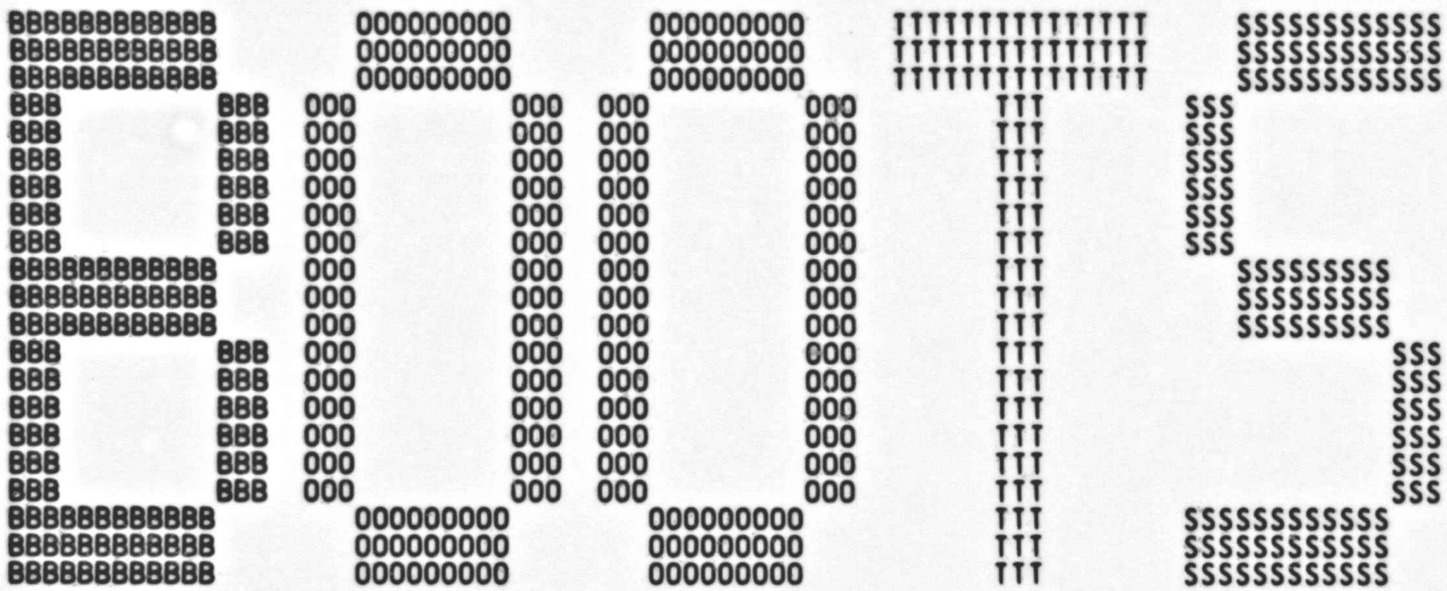
BBBBBBBBBBB OOOOOOOOO OOOOOOOOO TTTTTTTTTTTTTTT SSSSSSSSSSS
BBB BBB OOO OOO OOO OOO TTT SSS
BBBBBBBBBBB OOO OOO OOO OOO TTT SSSSSSSSS
BBB BBB OOO OOO OOO OOO TTT SSS
BBBBBBBBBBB OOOOOOOOO OOOOOOOOO TTT SSSSSSSSSSS

FILEID**T58BOOTIO

```
TTTTTTTTTT  5555555555   888888   BBBBBBBB     000000     000000   TTTTTTTTTT   IIIIII     000000
TTTTTTTTTT  5555555555   888888   BBBBBBBB     000000     000000   TTTTTTTTTT   IIIIII     000000
    TT      55          88    88  BB     BB   00    00   00    00     TT       II     00    00
    TT      55          88    88  BB     BB   00    00   00    00     TT       II     00    00
    TT      555555      88    88  BB     BB   00    00   00    00     TT       II     00    00
    TT      555555      88    88  BB     BB   00    00   00    00     TT       II     00    00
    TT            55     888888   BBBBBBBB   00    00   00    00     TT       II     00    00
    TT            55     888888   BBBBBBBB   00    00   00    00     TT       II     00    00
    TT              55   88    88  BB     BB   00    00   00    00     TT       II     00    00
    TT              55   88    88  BB     BB   00    00   00    00     TT       II     00    00
    TT      55      55   88    88  BB     BB   00    00   00    00     TT       II     00    00
    TT      55      55   88    88  BB     BB   00    00   00    00     TT       II     00    00
    TT        555555     888888   BBBBBBBB     000000     000000     TT     IIIIII     000000
    TT        555555     888888   BBBBBBBB     000000     000000     TT     IIIIII     000000
```

```
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
```

Table of contents

```
0000     1          .TITLE  T58BOOTIO - BOOT58 I/O Module
0000     2          .IDENT  'V04-000'
0000     3
0000     4 ;
0000     5 ;*****************************************************************************
0000     6 ;*                                                                           *
0000     7 ;*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                  *
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0000    24 ;*                                                                           *
0000    25 ;*                                                                           *
0000    26 ;*****************************************************************************
0000    27 ;
0000    28 ;++
0000    29 ;
0000    30 ; FACILITY:
0000    31 ;
0000    32 ;       BOOT58, the supplementary TU58 bootstrap program
0000    33 ;
0000    34 ; ABSTRACT:
0000    35 ;
0000    36 ;       This module calls the device-dependent ROM subroutine to read
0000    37 ;       a block's worth of data from the TU58 into physical memory.
0000    38 ;
0000    39 ; ENVIRONMENT:
0000    40 ;
0000    41 ;       Kernel mode, unmapped, IPL=31
0000    42 ;
0000    43 ; AUTHOR:
0000    44 ;
0000    45 ;       Carol Peters    23 February 1979
0000    46 ;
0000    47 ;--
```

```
                        .SBTTL  Declarations
                        .PSECT  $$$$00BOOT,LONG
                        .DEFAULT DISPLACEMENT, WORD
```

```
                     0000     55          .SBTTL  FIL$READ_LBN - Reads 1 LBN of data from TU58 cartridge
                     0000     56
                     0000     57 ;++
                     0000     58 ;
                     0000     59 ; Functional description:
                     0000     60 ;
                     0000     61 ;       This routine reads the data from a specified LBN on the TU58
                     0000     62 ;       cartridge into a page of physical memory. The device handling
                     0000     63 ;       is a subroutine in the device ROM.
                     0000     64 ;
                     0000     65 ; Inputs:
                     0000     66 ;
                     0000     67 ;       LBN(AP) - logical block number to read
                     0000     68 ;       BUF(AP) - address of memory to receive data
                     0000     69 ;
                     0000     70 ; Implicit inputs:
                     0000     71 ;
                     0000     72 ;       DRIVER_SUBROUT  - contains the address of the ROM subroutine
                     0000     73 ;
                     0000     74 ; Outputs:
                     0000     75 ;
                     0000     76 ;       R0      - status code
                     0000     77 ;
                     0000     78 ;--
                     0000     79
                     0000     80 ;
                     0000     81 ; Symbolic names for input arguments.
                     0000     82 ;
                     0000     83
            00000004 0000     84          LBN     = 4
            00000008 0000     85          BUF     = 8
                     0000     86
                 03F8 0000     87          .ENTRY  FIL$READ_LBN,-
                     0002     88                  ^M<R3,R4,R5,R6,R7,R8,R9>
                     0002     89
                  53   D4  0002     90          CLRL    R3                      ; Device must be unit 0.
              58  04 AC   D0  0004     91          MOVL    LBN(AP),R8              ; Get starting LBN.
                  08 AC   DD  0008     92          PUSHL   BUF(AP)                 ; Get memory address for data.
          50  0000'CF   D0  000B     93          MOVL    DRIVER_SUBROUT,R0       ; Get address of driver routine.
                  60   16  0010     94          JSB     (R0)                    ; Call driver.
                  8E   D5  0012     95          TSTL    (SP)+                   ; Pop memory address off stack.
                       04  0014     96          RET
                           0015     97
                           0015     98          .END
```

```
BUF             = 00000008
DRIVER_SUBROUT    ********    X   01
FIL$READ_LBN      00000000 RG   01
LBN             = 00000004
```

Psect synopsis

PSECT name	Allocation	PSECT No.	Attributes
. ABS .	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
$$$$00BOOT	00000015 (21.)	01 (1.)	NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC LONG

Performance indicators

Phase	Page faults	CPU Time	Elapsed Time
Initialization	30	00:00:00.06	00:00:00.95
Command processing	132	00:00:00.77	00:00:02.63
Pass 1	71	00:00:00.35	00:00:01.14
Symbol table sort	0	00:00:00.00	00:00:00.01
Pass 2	37	00:00:00.23	00:00:00.67
Symbol table output	2	00:00:00.01	00:00:00.01
Psect synopsis output	1	00:00:00.01	00:00:00.01
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	275	00:00:01.44	00:00:05.42

```
The working set limit was 750 pages.
1020 bytes (2 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 0 local symbols.
98 source lines were read in Pass 1, producing 14 object records in Pass 2.
0 pages of virtual memory were used to define 0 macros.
```

Macro library statistics

Macro library name	Macros defined
_255DUA28:[BOOTS.OBJ]BOOTS.MLB;1	0
_255DUA28:[SYS.OBJ]LIB.MLB;1	0
_255DUA28:[SYSLIB]STARLET.MLB;2	0
TOTALS (all libraries)	0

```
0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS$:T58BOOTIO/OBJ=OBJ$:T58BOOTIO MSRC$:T58BOOTIO/UPDATE=(ENH$:T58BOOTIO)+EXECML$/LIB+LIB$:BOOTS.MLB/LIB
```

SYSGENMN
LIS

VMB
LIS

SYSGEN
LIS

SYSGTTSTR
LIS

SYSGENCMD
LIS

SYSGTERM
LIS

TS8BOOTIO
LIS