```
   SSSSSSSSSSS  UUU         UUU  MMM         MMM
   SSSSSSSSSSS  UUU         UUU  MMM         MMM
   SSSSSSSSSSS  UUU         UUU  MMM         MMM
SSS             UUU         UUU  MMMMMMM   MMMMMM
SSS             UUU         UUU  MMMMMMM   MMMMMM
SSS             UUU         UUU  MMMMMMM   MMMMMM
SSS             UUU         UUU  MMM   MMM   MMM
SSS             UUU         UUU  MMM   MMM   MMM
SSS             UUU         UUU  MMM   MMM   MMM
   SSSSSSSSS    UUU         UUU  MMM         MMM
   SSSSSSSSS    UUU         UUU  MMM         MMM
   SSSSSSSSS    UUU         UUU  MMM         MMM
            SSS UUU         UUU  MMM         MMM
            SSS UUU         UUU  MMM         MMM
            SSS UUU         UUU  MMM         MMM
            SSS UUU         UUU  MMM         MMM
            SSS UUU         UUU  MMM         MMM
            SSS UUU         UUU  MMM         MMM
SSSSSSSSSSS     UUUUUUUUUUUUUUU  MMM         MMM
SSSSSSSSSSS     UUUUUUUUUUUUUUU  MMM         MMM
SSSSSSSSSSS     UUUUUUUUUUUUUUU  MMM         MMM
```

FILEID**SUMSHR

```
  SSSSSSSS  UU      UU  MM      MM    SSSSSSSS  HH      HH  RRRRRRRR
  SSSSSSSS  UU      UU  MM      MM    SSSSSSSS  HH      HH  RRRRRRRR
SS          UU      UU  MMMM  MMMM  SS          HH      HH  RR      RR
SS          UU      UU  MMMM  MMMM  SS          HH      HH  RR      RR
SS          UU      UU  MM  MM  MM  SS          HH      HH  RR      RR
SS          UU      UU  MM  MM  MM  SS          HH      HH  RR      RR
  SSSSSS    UU      UU  MM      MM    SSSSSS    HHHHHHHHHH  RRRRRRRR
  SSSSSS    UU      UU  MM      MM    SSSSSS    HHHHHHHHHH  RRRRRRRR
        SS  UU      UU  MM      MM          SS  HH      HH  RR  RR
        SS  UU      UU  MM      MM          SS  HH      HH  RR  RR
        SS  UU      UU  MM      MM          SS  HH      HH  RR    RR        ....
        SS  UU      UU  MM      MM          SS  HH      HH  RR    RR        ....
SSSSSSSS    UUUUUUUUUU  MM      MM  SSSSSSSS    HH      HH  RR      RR      ....
SSSSSSSS    UUUUUUUUUU  MM      MM  SSSSSSSS    HH      HH  RR      RR      ....


MM      MM    AAAAAA    PPPPPPPP
MM      MM    AAAAAA    PPPPPPPP
MMMM  MMMM  AA      AA  PP      PP
MMMM  MMMM  AA      AA  PP      PP
MM  MM  MM  AA      AA  PP      PP
MM  MM  MM  AA      AA  PP      PP
MM      MM  AA      AA  PPPPPPPP
MM      MM  AA      AA  PPPPPPPP
MM      MM  AAAAAAAAAA  PP
MM      MM  AAAAAAAAAA  PP
MM      MM  AA      AA  PP
MM      MM  AA      AA  PP
MM      MM  AA      AA  PP
MM      MM  AA      AA  PP
```

Object Module Synopsis

Module Name	Ident	Bytes	File	Creation Date	Creator
SUM$TFRVEC	V04-000	70	_255DUA28:[SUM.OBJ]SUM.OLB;1	16-SEP-1984 02:09	VAX/VMS Macro V04-00
SUM$DATA	V04-000	88	_255DUA28:[SUM.OBJ]SUM.OLB;1	16-SEP-1984 02:09	VAX/VMS Macro V04-00
SUM$LIST	V04-000	427	_255DUA28:[SUM.OBJ]SUM.OLB;1	16-SEP-1984 02:11	VAX/VMS Macro V04-00
SUM$OPEN	V04-000	253	_255DUA28:[SUM.OBJ]SUM.OLB;1	16-SEP-1984 02:12	VAX/VMS Macro V04-00
SUM$EDIT	V04-000	2353	_255DUA28:[SUM.OBJ]SUM.OLB;1	16-SEP-1984 02:10	VAX/VMS Macro V04-00
SUM$ERROR	V04-000	300	_255DUA28:[SUM.OBJ]SUM.OLB;1	16-SEP-1984 02:11	VAX/VMS Macro V04-00
LIB$VM	2-046	676	_255DUA28:[SYSLIB]STARLET.OLB;2	16-Sep-1984 01:20	VAX-11 Bliss-32 V4.0-742
LIB$SIGNAL	1-018	220	_255DUA28:[SYSLIB]STARLET.OLB;2	16-SEP-1984 00:18	VAX/VMS Macro V04-00
LIB$TPARSE	V04-000	1735	_255DUA28:[SYSLIB]STARLET.OLB;2	16-Sep-1984 02:20	VAX-11 Bliss-32 V4.0-742
LIB$MSGDEF	2-018	0	_255DUA28:[SYSLIB]STARLET.OLB;2	15-SEP-1984 23:43	VAX-11 Message V04-00
RMS$GLOBALS	V04-000	0	_255DUA28:[SYSLIB]STARLET.OLB;2	16-SEP-1984 01:35	VAX/VMS Macro V04-00
SYS$P1_VECTOR	V04-000	0	_255DUA28:[SYSLIB]STARLET.OLB;2	16-SEP-1984 00:40	VAX/VMS Macro V04-00
LIB$CVT_ATB	V04-000	122	_255DUA28:[SYSLIB]STARLET.OLB;2	16-SEP-1984 02:17	VAX/VMS Macro V04-00

```
                                  +-------------------------+
                                  ! Image Section Synopsis !
                                  +-------------------------+

   Cluster        Type Pages   Base Addr  Disk VBN PFC Protection and Paging      Global Sec. Name   Match     Majorid   Minorid
   -------        ---- -----   ---------  -------- --- ---------------------      ----------------   -----     -------   -------

ROSECT              3    12    00000000-R        2   0 READ ONLY
RWSECT              2     1    00001800-R       14   0 READ WRITE   COPY ON REF
DEFAULT_CLUSTER     3     1    00001A00-R       15   0 READ ONLY


          Key for special characters above:
                 +-------------------+
                 ! R  - Relocatable !
                 ! P  - Protected   !
                 +-------------------+
```

Program Section Synopsis

Psect Name	Module Name	Base	End	Length	Align	Attributes	Va
$$VECTOR_SUM		00000000	00000045	00000046 (70.)	PAGE 9	PIC,USR,CON,REL,LCL, SHR, EXE, RD,NOWRT,NOVEC	00
	SUM$TFRVEC	00000000	00000045	00000046 (70.)	PAGE 9		00
SUM$CODE		00000048	00000BDE	00000B97 (2967.)	LONG 2	PIC,USR,CON,REL,LCL, SHR, EXE, RD,NOWRT,NOVEC	00
	SUM$LIST	00000048	000001CD	00000186 (390.)	LONG 2		00
	SUM$OPEN	000001D0	000002C3	000000F4 (244.)	LONG 2		00
	SUM$EDIT	000002C4	00000AB5	000007F2 (2034.)	LONG 2		00
	SUM$ERROR	00000AB8	00000BDE	00000127 (295.)	LONG 2		00
SUM$RO_DATA		00000BE0	00000C03	00000024 (36.)	LONG 2	PIC,USR,CON,REL,LCL, SHR, EXE, RD,NOWRT,NOVEC	00
	SUM$LIST	00000BE0	00000BE8	00000009 (9.)	LONG 2		00
	SUM$OPEN	00000BEC	00000BF4	00000009 (9.)	LONG 2		00
	SUM$EDIT	00000BF8	00000BFF	00000008 (8.)	LONG 2		00
	SUM$ERROR	00000C00	00000C03	00000004 (4.)	LONG 2		00
_LIB$CODE		00000C04	000015D9	000009D6 (2518.)	LONG 2	PIC,USR,CON,REL,GBL, SHR, EXE, RD,NOWRT,NOVEC	00
	LIB$VM	00000C04	00000E67	00000264 (612.)	LONG 2		00
	LIB$SIGNAL	00000E68	00000F43	000000DC (220.)	LONG 2		00
	LIB$TPARSE	00000F44	0000155E	0000061B (1563.)	LONG 2		00
	LIB$CVT_ATB	00001560	000015D9	0000007A (122.)	LONG 2		00
_LIB$KEY0$		000015DA	000015DA	00000000 (0.)	WORD 1	PIC,USR,CON,REL,LCL, SHR, EXE, RD,NOWRT,NOVEC	00
	SUM$EDIT	000015DA	000015DA	00000000 (0.)	WORD 1		00
_LIB$KEY1$		000015DA	000015DA	00000000 (0.)	WORD 1	PIC,USR,CON,REL,LCL, SHR, EXE, RD,NOWRT,NOVEC	00
	SUM$EDIT	000015DA	000015DA	00000000 (0.)	WORD 1		00
_LIB$STATE$		000015DA	000016C0	000000E7 (231.)	BYTE 0	PIC,USR,CON,REL,LCL, SHR, EXE, RD,NOWRT,NOVEC	00
	SUM$EDIT	000015DA	000016C0	000000E7 (231.)	BYTE 0		00
SUM$GLOBAL		00001800	00001857	00000058 (88.)	LONG 2	NOPIC,USR,CON,REL,GBL,NOSHR,NOEXE, RD, WRT,NOVEC	00
	SUM$DATA	00001800	00001857	00000058 (88.)	LONG 2		00
SUM$RW_DATA		00001858	000018C4	0000006D (109.)	LONG 2	NOPIC,USR,CON,REL,GBL,NOSHR,NOEXE, RD, WRT,NOVEC	00
	SUM$LIST	00001858	00001873	0000001C (28.)	LONG 2		00
	SUM$OPEN	00001874	00001874	00000000 (0.)	LONG 2		00
	SUM$EDIT	00001874	000018C3	00000050 (80.)	LONG 2		00
	SUM$ERROR	000018C4	000018C4	00000001 (.)	LONG 2		00
_LIB$DATA		000018C8	00001907	00000040 (64.)	LONG 2	NOPIC,USR,CON,REL,GBL,NOSHR,NOEXE, RD, WRT,NOVEC	00
	LIB$VM	000018C8	00001907	00000040 (64.)	LONG 2		00
_LIB$PARSE_KEY0		00001A00	00001A00	00000000 (0.)	WORD 1	PIC,USR,CON,REL,LCL, SHR, EXE, RD,NOWRT,NOVEC	00
	LIB$TPARSE	00001A00	00001A00	00000000 (0.)	WORD 1		00
_LIB$PARSE_STATE		00001A00	00001AAB	000000AC (172.)	WORD 1	PIC,USR,CON,REL,LCL, SHR, EXE, RD,NOWRT,NOVEC	00
	LIB$TPARSE	00001A00	00001AAB	000000AC (172.)	WORD 1		00

Symbol Cross Reference

Symbol	Value	Defined By	Referenced By ...		
LIB$$GL_FREVM_C	00001900-R	LIB$VM			
LIB$$GL_GETVM_C	000018FC-R	LIB$VM			
LIB$$GL_VMINUSE	00001904-R	LIB$VM			
LIB$$IDENT_KEY_TABLE	00001A00-R	LIB$TPARSE			
LIB$$IDENT_STATE_TABLE	00001A40-R	LIB$TPARSE			
LIB$$UIC_KEY_TABLE	00001A00-R	LIB$TPARSE			
LIB$$UIC_STATE_TABLE	00001A00-R	LIB$TPARSE			
LIB$CVT_DTB	00001569-R	LIB$CVT_ATB	LIB$TPARSE		
LIB$CVT_HTB	00001577-R	LIB$CVT_ATB	LIB$TPARSE		
LIB$CVT_OTB	00001570-R	LIB$CVT_ATB	LIB$TPARSE		
LIB$FREE_VM	00000D8E-R	LIB$VM	SUM$EDIT	SUM$OPEN	
LIB$GET_VM	00000C04-R	LIB$VM	SUM$EDIT	SUM$LIST	SUM$OPEN
LIB$SIGNAL	00000E6E-R	LIB$SIGNAL	SUM$ERROR		
LIB$STOP	00000E68-R	LIB$SIGNAL			
LIB$TPARSE	00000F64-R	LIB$TPARSE	SUM$EDIT		
LIB$_BADBLOADR	00158264	LIB$MSGDEF	LIB$VM		
LIB$_BADBLOSIZ	0015826C	LIB$MSGDEF	LIB$VM		
LIB$_FATERRLIB	0015820C	LIB$MSGDEF	LIB$VM		
LIB$_INSVIRMEM	00158214	LIB$MSGDEF	LIB$VM		
LIB$_INVTYPE	0015828C	LIB$MSGDEF	LIB$TPARSE		
LIB$_SYNTAXERR	00158284	LIB$MSGDEF	LIB$TPARSE		
MER_KEY	000015DA-R	SUM$EDIT			
MER_STATE	000015DA-R	SUM$EDIT			
RMS$_EOF	0001827A	RMS$GLOBALS	SUM$ERROR		
RMS$_FNF	00018292	RMS$GLOBALS	SUM$ERROR	SUM$OPEN	
SUM$BLSZE	00001854-R	SUM$DATA	SUM$LIST	SUM$OPEN	
SUM$CLOSE	00000A7D-RU	SUM$EDIT	SUM$TFRVEC		
SUM$CLOSE_ERR	00000AD4-RU	SUM$ERROR	SUM$EDIT	SUM$OPEN	SUM$TFRVEC
SUM$FAB	00001804-R	SUM$DATA	SUM$OPEN		
SUM$INIT_CMND	000002C8-RU	SUM$EDIT	SUM$TFRVEC		
SUM$INIT_EDIT	000002C4-RU	SUM$EDIT	SUM$TFRVEC		
SUM$LIB_ERR	00000B8C-RU	SUM$ERROR	SUM$EDIT	SUM$LIST	SUM$OPEN
			SUM$TFRVEC		
SUM$LINE	0000054A-RU	SUM$EDIT	SUM$TFRVEC		
SUM$LIST_PARAM	0000011D-RU	SUM$LIST	SUM$TFRVEC		
SUM$LIST_QUAL	000000B0-RU	SUM$LIST	SUM$TFRVEC		
SUM$OPEN	000001D0-RU	SUM$OPEN	SUM$TFRVEC		
SUM$OPEN_ERR	00000AB8-RU	SUM$ERROR	SUM$EDIT	SUM$OPEN	SUM$TFRVEC
SUM$READ_ERR	00000AE2-RU	SUM$ERROR	SUM$EDIT	SUM$TFRVEC	
SUM$SET_SIGNAL	00000BD1-RU	SUM$ERROR	SUM$TFRVEC		
SUM$UPDATE_QUAL	00000048-RU	SUM$LIST	SUM$TFRVEC		
SUM$VIRT_ADDR	00001800-R	SUM$DATA	SUM$EDIT	SUM$LIST	
SUM$WRITE_ERR	00000AF9-RU	SUM$ERROR	SUM$TFRVEC		
SYS$ASCTOID	7FFEE4B0	SYS$P1_VECTOR	LIB$TPARSE		
SYS$CLOSE	7FFEE1B8	SYS$P1_VECTOR	SUM$EDIT	SUM$OPEN	
SYS$CONNECT	7FFEE1C0	SYS$P1_VECTOR	SUM$EDIT		
SYS$DISCONNECT	7FFEE1D0	SYS$P1_VECTOR	SUM$EDIT		
SYS$EXPREG	7FFEDF48	SYS$P1_VECTOR	LIB$VM		
SYS$FILESCAN	7FFEE278	SYS$P1_VECTOR	LIB$TPARSE		

Symbol	Value	Defined By	Referenced By ...	
SYS$FIND	7FFEE170	SYS$P1_VECTOR	SUM$EDIT	
SYS$GET	7FFEE180	SYS$P1_VECTOR	SUM$EDIT	
SYS$OPEN	7FFEE208	SYS$P1_VECTOR	SUM$EDIT	SUM$OPEN
SYS$PUTMSG	7FFEE0E0	SYS$P1_VECTOR	SUM$ERROR	
SYS$REWIND	7FFEE210	SYS$P1_VECTOR	SUM$EDIT	
SYS$SETAST	7FFEDFF8	SYS$P1_VECTOR	LIB$VM	
SYS$SRCHANDLER	7FFEE118	SYS$P1_VECTOR	LIB$SIGNAL	

Symbols By Value

Value	Symbols...		
00000048	R-SUM$UPDATE_QUAL		
000000B0	R-SUM$LIST_QUAL		
0000011D	R-SUM$LIST_PARAM		
000001D0	R-SUM$OPEN		
000002C4	R-SUM$INIT_EDIT		
000002C8	R-SUM$INIT_CMND		
0000054A	R-SUM$LINE		
00000A7D	R-SUM$CLOSE		
00000AB8	R-SUM$OPEN_ERR		
00000AD4	R-SUM$CLOSE_ERR		
00000AE2	R-SUM$READ_ERR		
00000AF9	R-SUM$WRITE_ERR		
00000B8C	R-SUM$LIB_ERR		
00000BD1	R-SUM$SET_SIGNAL		
00000C04	R-LIB$GET_VM		
00000D8E	R-LIB$FREE_VM		
00000E68	R-LIB$STOP		
00000E6E	R-LIB$SIGNAL		
00000F64	R-LIB$TPARSE		
00001569	R-LIB$CVT_DTB		
00001570	R-LIB$CVT_OTB		
00001577	R-LIB$CVT_HTB		
000015DA	R-MER_KEY	R-MER_STATE	
00001800	R-SUM$VIRT_ADDR		
00001804	R-SUM$FAB		
00001854	R-SUM$BLSZE		
000018FC	R-LIB$$GL_GETVM_C		
00001900	R-LIB$$GL_FREVM_C		
00001904	R-LIB$$GL_VMINUSE		
00001A00	R-LIB$$IDENT_KEY_TABLE	R-LIB$$UIC_KEY_TABLE	R-LIB$$UIC_STATE_TABLE
00001A40	R-LIB$$IDENT_STATE_TABLE		
0001827A	RMS$_EOF		
00018292	RMS$_FNF		
0015820C	LIB$_FATERRLIB		
00158214	LIB$_INSVIRMEM		
00158264	LIB$_BADBLOADR		
0015826C	LIB$_BADBLOSIZ		
00158284	LIB$_SYNTAXERR		
0015828C	LIB$_INVTYPE		
7FFEDF40	SYS$EXPREG		
7FFEDFF8	SYS$SETAST		
7FFEE0E0	SYS$PUTMSG		
7FFEE118	SYS$SRCHANDLER		
7FFEE170	SYS$FIND		
7FFEE180	SYS$GET		
7FFEE1B8	SYS$CLOSE		
7FFEE1C0	SYS$CONNECT		
7FFEE1D0	SYS$DISCONNECT		
7FFEE208	SYS$OPEN		

Value	Symbols...
7FFEE210	SYS$REWIND
7FFEE278	SYS$FILESCAN
7FFEE4B0	SYS$ASCTOID

Key for special characters above:

```
+-------------------+
| *  - Undefined    |
| U  - Universal    |
| R  - Relocatable  |
| X  - External     |
+-------------------+
```

```
                                  +-----------------+
                                  ! Image Synopsis !
                                  +-----------------+

Virtual memory allocated:          00000000 00001BFF 00001C00 (7168. bytes, 14. pages)
Stack size:                               0. pages
Image header virtual block limits:        1.        1. (    1. block)
Image binary virtual block limits:        2.       15. (   14. blocks)
Image name and identification:     SUMSHR V04-000
Number of files:                          3.
Number of modules:                       13.
Number of program sections:              17.
Number of global symbols:                55.
Number of cross references:             122.
Number of image sections:                 3.
Image type:                          PIC, SHAREABLE. Global Section Match=LESS/EQUAL, Ident, Major=1, Minor=1000
Map format:                        FULL WITH CROSS REFERENCE in file _$255$DUA28:[SUM.LIS]SUMSHR.MAP;1
Estimated map length:              56. blocks
                                +----------------------+
                                ! Link Run Statistics !
                                +----------------------+

Performance Indicators             Page Faults   CPU Time        Elapsed Time
----------------------             -----------   --------        ------------
    Command processing:                     66   00:00:00.40     00:00:00.59
    Pass 1:                                 65   00:00:01.05     00:00:05.85
    Allocation/Relocation:                  12   00:00:00.23     00:00:00.58
    Pass 2:                                 20   00:00:00.76     00:00:03.35
    Map data after object module synopsis:  12   00:00:00.53     00:00:00.63
    Symbol table output:                     1   00:00:00.07     00:00:00.40
Total run values:                          176   00:00:03.04     00:00:11.40

Using a working set limited to 900 pages and 78 pages of data storage (excluding image)

Total number object records read (both passes):   615
    of which 309 were in libraries and 12 were DEBUG data records containing 865 bytes

Number of modules extracted explicitly             = 6
    with 7 extracted to resolve undefined symbols

14 library searches were for symbols not in the library searched

A total of 5 global symbol table records was written

LINK/USERLIB=PROC/NOSYSSHR/SHARE=EXE$:SUMSHR/MAP=MAP$:SUMSHR/FULL/CROSS SYS$INPUT/OPTIONS
!
CLUSTER=ROSECT,,,LIB$:SUM/INCLUDE=(SUM$TFRVEC,SUM$DATA,-
                 SUM$LIST,SUM$OPEN,SUM$EDIT,SUM$ERROR)
!
COLLECT=ROSECT,_LIB$CODE
COLLECT=RWSECT,SUM$GLOBAL,SUM$RW_DATA,_LIB$DATA
!
!       Set match control and major id = 1, and minor = 1000
!
GSMATCH=LEQUAL,1,1000
```

```
!
!       Reduce number of image sections by combining PSECTS
!
PSECT=_LIB$DATA,NOPIC
PSECT=SUM$RO_DATA,PIC,SHR,EXE
PSECT=SUM$CODE,PIC,SHR
```

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SUMSLP
MAP

SRTTRNMSG
LIS

DATA
LIS

SUMSHR
MAP

SUMDATA
LIS

UTLCHKCLI
LIS

SUM

SUM
MAP

SUMDEF
MAR

MAIN
LIS

SUMED
LIS

SUMEDIT
LIS

GETCMD
LIS