


```
DDDDDDDD      AAAAAA      TTTTTTTTTT      AAAAAA      11
DDDDDDDD      AAAAAA      TTTTTTTTTT      AAAAAA      11
DD      DD      AA      AA      TT      AA      AA      1111
DD      DD      AA      AA      TT      AA      AA      1111
DD      DD      AA      AA      TT      AA      AA      11
DD      DD      AA      AA      TT      AA      AA      11
DD      DD      AA      AA      TT      AA      AA      11
DD      DD      AA      AA      TT      AA      AA      11
DD      DD      AAAAAAAAAA      TT      AAAAAAAAAA      11
DD      DD      AAAAAAAAAA      TT      AAAAAAAAAA      11
DD      DD      AA      AA      TT      AA      AA      11
DD      DD      AA      AA      TT      AA      AA      11
DDDDDDDD      AA      AA      TT      AA      AA      111111
DDDDDDDD      AA      AA      TT      AA      AA      111111
```

```
....
....
....
....
```

```
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
```


(2)	93	DATA STORAGE
-----	----	--------------


```
0000 1      .TITLE  MAC$DATA1
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 10     *
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0000 23     *  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0000 24     *
0000 25     *
0000 26     *****
0000 27
0000 28
0000 29     ++
0000 30     FACILITY:      VAX MACRO ASSEMBLER OBJECT LIBRARY
0000 31
0000 32     ABSTRACT:
0000 33
0000 34     The VAX-11 MACRO assembler translates MACRO-32 source code into object
0000 35     modules for input to the VAX-11 LINKER.
0000 36
0000 37     ENVIRONMENT:  USER MODE
0000 38
0000 39     AUTHOR: Benn Schreiber, CREATION DATE: 30-AUG-78
0000 40
0000 41     MODIFIED BY:
0000 42
0000 43     V03-03  MCN0171      Maria del C. Nasr      12-Jun-1984
0000 44     Change version number to 4-00.
0000 45
0000 46     V03-02  MTR0025      Mike Rhodes      8-Feb-1983
0000 47     Remove imbedded carriage control from FA0 control
0000 48     strings, creating individual records where required.
0000 49     Advance the identification to 3-01.
0000 50
0000 51     V03-01  MTR0012      Mike Rhodes      22-Mar-1982
0000 52     Change version number format to be compatible
0000 53     with other facilities. 3-00.
0000 54
0000 55     V03.00  MTR0002      Mike Rhodes      15-Mar-1982
0000 56     Advanced the identification version number to 3.00.
0000 57
```



```
0000 58 : V02.26 CNH0045 Chris Hume 1-Dec-1980
0000 59 : Increased size of parser value stack. Stack overflow remains
0000 60 : undetected. Also advanced displayed IDENT to 2.46.
0000 61 : (DATA.MAR 02.22, MAIN.MAR 02.46)
0000 62 :
0000 63 : V01.25 RN0029 R. Newland 18-Feb-1980
0000 64 : Update version number to V02.42.
0000 65 :
0000 66 : V01.24 RN0026 R. Newland 16-Jan-1980
0000 67 : Update version number.
0000 68 :
0000 69 : V01.23 RN0022 R. Newland 31-Oct-1979
0000 70 : Translate SYS$LP_LINES to set lines/page
0000 71 :
0000 72 : V01.22 RN0019 R. Newland 30-Oct-1979
0000 73 : Improve error pointer positioning.
0000 74 :
0000 75 : V01.21 RN0014 R. Newland 10-Oct-1979
0000 76 : Support for G_floating, H_floating and Octaword data types
0000 77 :
0000 78 : V01.20 RN0011 R. Newland 11-Sep-1979
0000 79 : New librarian support
0000 80 :
0000 81 : V01.19 RN0008 R. Newland 29-Aug-1979
0000 82 : 31 character PSECT names
0000 83 :
0000 84 : V01.18 RN0002 R. Newland 01-Feb-1979
0000 85 : Changes for Source Update Merge
0000 86 : --
0000 87 :
0000 88 : $MAC_CRFLAGDEF ;DEFINE CREF CONTROL FLAGS
0000 89 : $MAC_CTLFLGDEF ; Control flags
0000 90 :
00000000 91 : .PSECT MAC$RO_DATA,NOWRT,NOEXE,GBL,LONG
```

DATA STORAGE

```
0000 93 .SBTTL DATA STORAGE
0000 94
0000 95 MAC$AB_DEF_TITL:: ;DEFAULT TITLE STRING
2E 4E 49 41 4D 2E 00' 0000 96 .ASCIC /.MAIN./ ;DEFAULT TITLE
06 0000
0007 97
0007 98 MAC$AB_VERSION:: ;VAX-11 MACRO VERSION STRING
63 61 4D 20 53 4D 56 2F 58 41 56 00' 0007 99 .ASCIC \VAX/VMS Macro V04-00\ ;VAX-11 MACRO VERSION
30 30 2D 34 30 56 20 6F 72 0013
14 0007
001C 100
001C 101 MAC$AB_TOC_MSG:: ;"TABLE OF CONTENTS"
6F 63 20 66 6F 20 65 6C 62 61 54 00' 001C 102 .ASCIC /Table of contents/
73 74 6E 65 74 6E 0028
11 001C
002E 103
002E 104 MAC$AB_STB_MSG:: ;"SYMBOL TABLE"
6C 62 61 74 20 6C 6F 62 6D 79 53 00' 002E 105 .ASCIC /Symbol table/
65 003A
0C 002E
003B 106
003B 107 MAC$AB_RNT_MSG::
72 63 61 4D 20 31 31 2D 58 41 56 00' 003B 108 .ASCIC /VAX-11 Macro Run Statistics/
73 69 74 61 74 53 20 6E 75 52 20 6F 0047
73 63 69 74 0053
1B 003B
0057 109
0057 110 MAC$AB_CRF_MSG::
72 65 66 65 72 20 73 73 6F 72 43 00' 0057 111 .ASCIC /Cross reference/
65 63 6E 65 0063
0F 0057
0067 112
0067 113 MAC$AB_CRF_HDR::
2B 20 2A 35 34 21 0000006F'010E0000' 0067 114 .ASCID \!45* +!24*--+\\
2B 2D 2A 34 32 21 0075
007B 115 MAC$AB_CRF_HDRA::
21 20 2A 35 34 21 00000083'010E0000' 007B 116 .ASCID \!45* !! Symbol Cross Reference !!\\
6F 72 43 20 6C 6F 62 6D 79 53 20 21 0089
65 63 6E 65 72 65 66 65 52 20 73 73 0095
21 21 20 00A1
00A4 117 MAC$AB_CRF_HDRB::
2B 20 2A 35 34 21 000000AC'010E0000' 00A4 118 .ASCID \!45* +!24*--+\\
2B 2D 2A 34 32 21 00B2
00B8 119
00B8 120 MAC$AB_CRF_HD1::
59 53 3C 35 31 21 000000C0'010E0000' 00B8 121 .ASCID \!15<SYMBOL!> !8<VALUE!>!5* !14<DEFINITION!>\\-
41 56 3C 38 21 20 3E 21 4C 4F 42 4D 00C6
34 31 21 20 2A 35 21 3E 21 45 55 4C 00D2
21 4E 4F 49 54 49 4E 49 46 45 44 3C 00DE
3E 00EA
45 46 45 52 3C 34 31 21 20 2A 32 21 00EB 122 \!2* !14<REFERENCES...!>\\
3E 21 2E 2E 2E 53 45 43 4E 45 52 00F7
0102 123 MAC$AB_CRF_HD1A::
36 21 3C 35 31 21 0000010A'010E0000' 0102 124 .ASCID \!15<!6*--!> !8<!5*--!>!5* !14<!10*--!>\\-
2D 2A 35 21 3C 38 21 20 3E 21 2D 2A 0110
31 21 3C 34 31 21 20 2A 35 21 3E 21 011C
3E 21 2D 2A 30 0128
```



```
2A 33 31 21 3C 34 31 21 20 2A 32 21 012D 125      \!2* !14<!13*-!>\
      3E 21 2D 0139
      013C 126
      013C 127 MAC$AB_CRF_HD1W::
      013C 128 .ASCID \!31<SYMBOL!> !8<VALUE!>!5* !14<DEFINITION!>\-
59 53 3C 31 33 21 00000144'010E0000' 013C
41 56 3C 38 21 20 3E 21 4C 4F 42 4D 014A
34 31 21 20 2A 35 21 3E 21 45 55 4C 0156
21 4E 4F 49 54 49 4E 49 46 45 44 3C 0162
      3E 016E
45 46 45 52 3C 34 31 21 20 2A 32 21 016F 129      \!2* !14<REFERENCES...!>\
      3E 21 2E 2E 2E 53 45 43 4E 45 52 017B
      0186
36 21 3C 31 33 21 0000018E'010E0000' 0186 130 MAC$AB_CRF_HD1WA::
2D 2A 35 21 3C 38 21 20 3E 21 2D 2A 0186 131 .ASCID \!31<!6*-!> !8<!5*-!>!5* !14<!10*-!>\-
31 21 3C 34 31 21 20 2A 35 21 3E 21 0194
      3E 21 2D 2A 30 01A0
2A 33 31 21 3C 34 31 21 20 2A 32 21 01B1 132      \!2* !14<!13*-!>\
      3E 21 2D 01BD
      01C0 133
      01C0 134 MAC$AB_CRF_HDM::
      01C0 135 .ASCID \!45* +!24*--+\\
      01D4 136 MAC$AB_CRF_HDMA::
6F 72 43 20 73 6F 72 63 61 4D 20 21 01D4 137 .ASCID \!45* !! Macros Cross Reference !!\
65 63 6E 65 72 65 66 65 52 20 73 73 01E2
      21 21 20 01EE
      01FA
2B 20 2A 35 34 21 00000205'010E0000' 01FD 138 MAC$AB_CRF_HDMB::
      2B 2D 2A 34 32 21 01FD 139 .ASCID \!45* +!24*--+\\
      020B
      0211 140
      0211 141 MAC$AB_CRF_HD2::
41 4D 3C 35 31 21 00000219'010E0000' 0211 142 .ASCID \!15<MACRO!>!3* !8<SIZE!>!6* !14<DEFINITION!>\-
3C 38 21 20 2A 33 21 3E 21 4F 52 43 021F
31 21 20 2A 36 21 3E 21 45 5A 49 53 022B
4E 4F 49 54 49 4E 49 46 45 44 3C 34 0237
      3E 21 0243
45 46 45 52 3C 34 31 21 20 2A 33 21 0245 143      \!3* !14<REFERENCES...!>\
      3E 21 2E 2E 2E 53 45 43 4E 45 52 0251
      025C
35 21 3C 35 31 21 00000264'010E0000' 025C 144 MAC$AB_CRF_HD2A::
21 3C 38 21 20 2A 33 21 3E 21 2D 2A 025C 145 .ASCID \!15<!5*-!>!3* !8<!4*-!>!6* !14<!10*-!>\-
34 31 21 20 2A 36 21 3E 21 2D 2A 34 026A
      3E 21 2D 2A 30 31 21 3C 0276
2A 33 31 21 3C 34 31 21 20 2A 33 21 0282
      3E 21 2D 028A 146      \!3* !14<!13*-!>\
      0296
      0299 147
      0299 148 MAC$AB_CRF_HD2W::
41 4D 3C 31 33 21 000002A1'010E0000' 0299 149 .ASCID \!31<MACRO!>!3* !8<SIZE!>!6* !14<DEFINITION!>\-
3C 38 21 20 2A 33 21 3E 21 4F 52 43 02A7
31 21 20 2A 36 21 3E 21 45 5A 49 53 02B3
4E 4F 49 54 49 4E 49 46 45 44 3C 34 02BF
      3E 21 02CB
45 46 45 52 3C 34 31 21 20 2A 33 21 02CD 150      \!3* !14<REFERENCES...!>\
      3E 21 2E 2E 2E 53 45 43 4E 45 52 02D9
      02E4
35 21 3C 31 33 21 000002EC'010E0000' 02E4 151 MAC$AB_CRF_HD2WA::
      02E4 152 .ASCID \!31<!5*-!>!3* !8<!4*-!>!6* !14<!10*-!>\-
```

```
21 3C 38 21 20 2A 33 21 3E 21 2D 2A 02F2
34 31 21 20 2A 36 21 3E 21 2D 2A 34 02FE
2A 33 31 21 3C 34 31 21 20 2A 33 21 030A
3E 21 2D 0312
3E 21 2D 031E
0321
0321 153 \!3* !14<!13*-!>\
0321 154
0321 155 MAC$AB_CRF_HDO::
0321 156 .ASCID \!45* +!24*--+\\
032F
0335 157 MAC$AB_CRF_HDOA::
0335 158 .ASCID \!45* !! Opcode Cross Reference !!\
0343
034F
035B
035E
035E 159 MAC$AB_CRF_HDOB::
036C 160 .ASCID \!45* +!24*--+\\
0372
0372 161
0372 162 MAC$AB_CRF_HD3::
0380 163 .ASCID \!15<OPCODE!>!5<VALUE!>!5* !14<REFERENCES...!>\
038C
0398
03A4
03A7 164 MAC$AB_CRF_HD3A::
03A7 165 .ASCID \!15<!6*-!>!5<!5*-!>!5* !14<!13*-!>\
03B5
03C1
03CD
03D1
03D1 166
03D1 167 MAC$AB_CRF_HDD::
03DF 168 .ASCID \!43* +!28*--+\\
03E5
03E5 169 MAC$AB_CRF_HDDA::
03F3 170 .ASCID \!43* !! Directives Cross Reference !!\
03FF
040B
0412
0412 171 MAC$AB_CRF_Hddb::
0420 172 .ASCID \!43* +!28*--+\\
0426
0426 173
0426 174 MAC$AB_CRF_HD4::
0434 175 .ASCID \!15<DIRECTIVE!>!14<REFERENCES...!>\
0440
044C
0450
0450 176 MAC$AB_CRF_HD4A::
045E 177 .ASCID \!15<!9*-!>!14<!13*-!>\
046A
046D
046D 178
046D 179 MAC$AB_CRF_HDG::
047B 180 .ASCID \!44* +!26*--+\\
0481
0481 181 MAC$AB_CRF_HDGA::
0481 182 .ASCID \!44* !! Register Cross Reference !!\

2B 20 2A 35 34 21 00000329'010E0000'
2B 2D 2A 34 32 21

21 20 2A 35 34 21 0000033D'010E0000'
6F 72 43 20 65 64 6F 63 70 4F 20 21
65 63 6E 65 72 65 66 65 52 20 73 73
21 21 20

2B 20 2A 35 34 21 00000366'010E0000'
2B 2D 2A 34 32 21

50 4F 3C 35 31 21 0000037A'010E0000'
4C 41 56 3C 35 21 3E 21 45 44 4F 43
3C 34 31 21 20 2A 35 21 3E 21 45 55
2E 2E 53 45 43 4E 45 52 45 46 45 52
3E 21 2E

36 21 3C 35 31 21 000003AF'010E0000'
21 2D 2A 35 21 3C 35 21 3E 21 2D 2A
33 31 21 3C 34 31 21 20 2A 35 21 3E
3E 21 2D 2A

2B 20 2A 33 34 21 000003D9'010E0000'
2B 2D 2A 38 32 21

21 20 2A 33 34 21 000003ED'010E0000'
73 65 76 69 74 63 65 72 69 44 20 21
72 65 66 65 52 20 73 73 6F 72 43 20
21 21 20 65 63 6E 65

2B 20 2A 33 34 21 0000041A'010E0000'
2B 2D 2A 38 32 21

49 44 3C 35 31 21 0000042E'010E0000'
34 31 21 3E 21 45 56 49 54 43 45 52
2E 53 45 43 4E 45 52 45 46 45 52 3C
3E 21 2E 2E

39 21 3C 35 31 21 00000458'010E0000'
2A 33 31 21 3C 34 31 21 3E 21 2D 2A
3E 21 2D

2B 20 2A 34 34 21 00000475'010E0000'
2B 2D 2A 36 32 21

21 20 2A 34 34 21 00000489'010E0000'
```


MAC\$DATA1
V04-000

DATA STORAGE

G 3

16-SEP-1984 01:52:47 VAX/VMS Macro V04-00
5-SEP-1984 01:47:53 [MACRO.SRC]DATA1.MAR;1

Page 6
(2)

43 20 72 65 74 73 69 67 65 52 20 21 048F
6E 65 72 65 66 65 52 20 73 73 6F 72 049B
21 21 20 65 63 04A7
2B 20 2A 34 34 21 000004B4'010E0000' 04AC
2B 2D 2A 36 32 21 04AC
04BA
04C0
04C0
45 52 3C 30 31 21 000004C8'010E0000' 04C0
3C 34 31 21 3E 21 52 45 54 53 49 47 04CE
43 4E 45 52 45 46 45 52 20 2E 4F 4E 04DA
3C 34 31 21 20 2A 35 21 3E 21 53 45 04E6
2E 2E 53 45 43 4E 45 52 45 46 45 52 04F2
3E 21 2E 04FE
38 21 3C 30 31 21 00000509'010E0000' 0501
2A 34 31 21 3C 34 31 21 3E 21 2D 2A 050F
21 3C 34 31 21 20 2A 35 21 3E 21 2D 051B
3E 21 2D 2A 33 31 0527
052D
2B 20 2A 35 34 21 00000535'010E0000' 052D
2B 2D 2A 34 32 21 053B
0541
21 20 2A 35 34 21 00000549'010E0000' 0541
63 6E 61 6D 72 6F 66 72 65 50 20 21 054F
73 72 6F 74 61 63 69 64 6E 69 20 65 055B
21 21 20 0567
2B 20 2A 35 34 21 00000572'010E0000' 056A
2B 2D 2A 34 32 21 056A
0578
68 50 3C 35 32 21 00000586'010E0000' 057E
67 61 50 3C 35 31 21 3E 21 65 73 61 057E
31 21 3E 21 73 74 6C 75 61 66 20 65 058C
3E 21 65 6D 69 54 20 55 50 43 3C 35 0598
20 64 65 73 70 61 6C 45 3C 35 31 21 05A4
3E 21 65 6D 69 54 05B0
05BC
35 21 3C 35 32 21 000005CA'010E0000' 05C2
2A 31 31 21 3C 35 31 21 3E 21 2D 2A 05C2
21 2D 2A 38 21 3C 35 31 21 3E 21 2D 05D0
3E 21 2D 2A 32 31 21 3C 35 31 21 3E 05DC
05E8
2B 20 2A 34 34 21 000005FC'010E0000' 05F4
2B 2D 2A 36 32 21 05F4
0602
21 20 2A 34 34 21 00000610'010E0000' 0608
72 62 69 6C 20 6F 72 63 61 4D 20 21 0608
69 74 73 69 74 61 74 73 20 79 72 61 0616
21 21 20 73 63 0622
062E
2B 20 2A 34 34 21 0000063B'010E0000' 0633
2B 2D 2A 36 32 21 0633
0641
0647

183 MAC\$AB_CRF_HDGB::
184 .ASCID \!44* +!26*--+\
185
186 MAC\$AB_CRF_HD5::
187 .ASCID \!10<REGISTER!>!14<NO. REFERENCES!>!5* !14<REFERENCES...!>\

188 MAC\$AB_CRF_HD5A::
189 .ASCID \!10<!8*--!>!14<!14*--!>!5* !14<!13*--!>\

190
191 MAC\$AB_IND_HDR::
192 .ASCID \!45* +!24*--+\
193 MAC\$AB_IND_HDRA::
194 .ASCID \!45* !! Performance indicators !!\
195
196 MAC\$AB_IND_HDRB::
197 .ASCID \!45* +!24*--+\
198
199 MAC\$AB_RUN_HDR::
200 .ASCID \!25<Phase!>!15<Page faults!>!15<CPU Time!>!15<Elapsed Time!>\

201
202
203 MAC\$AB_MLB_HDR::
204 .ASCID \!44* +!26*--+\
205
206 MAC\$AB_MLB_HDRA::
207 .ASCID \!44* !! Macro library statistics !!\
208
209
207 MAC\$AB_MLB_HDRB::
208 .ASCID \!44* +!26*--+\
209

```
61 4D 3C 35 34 21 0000064F'010E0000' 0647 210 MAC$AB_MLB_HD2::
20 79 72 61 72 62 69 6C 20 6F 72 63 0647 211 .ASCID \!45<Macro library name!>\-
64 20 73 6F 72 63 61 4D 3C 30 32 21 0655 212 \!20<Macros defined!>\
3E 21 64 65 6E 69 66 65 0661 213 MAC$AB_MLB_HD2A::
31 21 3C 35 34 21 00000683'010E0000' 067B 214 .ASCID \!45<!18*--!>\-
3E 21 2D 2A 34 31 21 3C 30 32 21 067B 215 \!20<!14*--!>\
0678 216
0678 217 MAC$AB_MLB_FAO::
3E 21 2D 2A 34 31 21 3C 30 32 21 0689 218 .ASCID \!45<!AS!>!12SL:8* \
068E 219
0699 220 MAC$AB_MLB_TOT::
0699 221 .ASCID /TOTALS (all libraries)/
41 21 3C 35 34 21 000006A1'010E0000' 06A7 222
20 2A 38 21 4C 53 32 31 21 3E 21 53 06B3 223 MAC$AB_MLB_SUM::
53 4C 41 54 4F 54 000006BB'010E0000' 06B3 224 .ASCID \!SL GET!%S !AC required to define !SL macros.\
72 61 72 62 69 6C 20 6C 6C 61 28 20 06C1
29 73 65 69 06CD
06D1 225
06D1 226 MAC$AB_MLB_TOT::
45 47 20 4C 53 21 000006D9'010E0000' 06D1 227 .ASCID \!SL GET!%S !AC required to define !SL macros.\
71 65 72 20 43 41 21 20 53 25 21 54 06DF
66 65 64 20 6F 74 20 64 65 72 69 75 06EB
72 63 61 6D 20 4C 53 21 20 65 6E 69 06F7
2E 73 6F 0703
0706 228
0706 229 MAC$AB_MLB_TOT::
41 21 3C 35 32 21 0000070E'010E0000' 0706 230 .ASCID \!25<!AC!>!10SL!5* !2ZL:!2ZL:!2ZL.!2ZL!4* !%T\
20 2A 35 21 4C 53 30 31 21 3E 21 43 0714
32 21 3A 4C 5A 32 21 3A 4C 5A 32 21 0720
21 20 2A 34 21 4C 5A 32 21 2E 4C 5A 072C
54 25 0738
073A 231
073A 232 MAC$AB_PSC_HDR::
70 6F 6E 79 73 20 74 63 65 73 50 00' 073A 233 .ASCID \!48* +!16*--+\
73 69 73 0746
0E 073A
0749 234 MAC$AB_PSC_HDRA::
2B 20 2A 38 34 21 00000751'010E0000' 0749 235 .ASCID \!48* !! Psect synopsis !!\
2B 2D 2A 36 31 21 0757
075D 236 MAC$AB_PSC_HDRB::
21 20 2A 38 34 21 00000765'010E0000' 075D 237 .ASCID \!48* +!16*--+\
6F 6E 79 73 20 74 63 65 73 50 20 21 076B
21 21 20 73 69 73 70 0777
077E 238
077E 239 MAC$AB_PSC_HD2::
2B 20 2A 38 34 21 00000786'010E0000' 077E 240 .ASCID \!31<PSECT name!>!1* !18<Allocation!>!2* \-
2B 2D 2A 36 31 21 078C
0792 241
0792 242 .ASCID \!9<PSECT No.!>!2* !15<Attributes!>\
53 50 3C 31 33 21 0000079A'010E0000' 0792
31 21 3E 21 65 6D 61 6E 20 54 43 45 07A0
61 63 6F 6C 6C 41 3C 38 31 21 20 2A 07AC
20 2A 32 21 3E 21 6E 6F 69 74 07B8
2E 6F 4E 20 54 43 45 53 50 3C 39 21 07C2
74 41 3C 35 31 21 20 2A 32 21 3E 21 07CE
```



```
3E 21 73 65 74 75 62 69 72 74 07DA
31 21 3C 31 33 21 000007EC'010E0000' 07E4
38 31 21 20 2A 31 21 3E 21 2D 2A 30 07F2
20 2A 32 21 3E 21 2D 2A 30 31 21 3C 07FE
2A 32 21 3E 21 2D 2A 39 21 3C 39 21 080A
3E 21 2D 2A 30 31 21 3C 35 31 21 20 0816
0822
0822
35 21 3C 34 31 21 0000082A'010E0000' 0822
29 4C 53 28 23 21 2E 2A 23 21 4C 53 0830
20 3E 21 29 4C 53 21 28 20 083C
0845
0845
41 21 3C 31 33 21 0000084D'010E0000' 0845
35 21 28 20 20 4C 58 39 21 3E 21 43 0853
28 20 42 58 32 21 20 20 29 2E 4C 53 085F
20 20 29 2E 4C 53 33 21 086B
0873
0873
73 61 77 00' 0873
03 0873
0877
0877
65 72 65 77 00' 0877
04 0877
087C
087C
20 65 72 65 68 54 00000884'010E0000' 087C
6F 72 72 65 20 6F 6E 20 65 72 65 77 088A
73 67 6E 69 6E 72 61 77 20 2C 73 72 0896
74 61 6D 72 6F 66 6E 69 20 72 6F 20 08A2
73 65 67 61 73 73 65 6D 20 6E 6F 69 08AE
2E 08BA
08BB
08BB
20 65 72 65 68 54 000008C3'010E0000' 08BB
72 72 65 20 4C 53 21 20 65 72 65 77 08C9
77 20 4C 53 21 20 2C 53 25 21 72 6F 08D5
6E 61 20 53 25 21 67 6E 69 6E 72 61 08E1
20 64 08ED
74 61 6D 72 6F 66 6E 69 20 4C 53 21 08EF
21 65 67 61 73 73 65 6D 20 6E 6F 69 08FB
73 65 6E 69 6C 20 6E 6F 20 2C 53 25 0907
3A 0913
0914
6F 77 20 65 68 54 0000091C'010E0000' 0914
69 6C 20 74 65 73 20 67 6E 69 6B 72 0922
20 4C 53 21 20 73 61 77 20 74 69 6D 092E
2E 73 65 67 61 70 093A
0940
0940
79 62 20 4C 53 21 00000948'010E0000' 0940
67 61 70 20 4C 53 21 28 20 73 65 74 094E
72 69 76 20 66 6F 20 29 53 25 21 65 095A
79 72 6F 6D 65 6D 20 6C 61 75 74 0966
74 20 64 65 73 75 20 65 72 65 77 20 0971
```

242 MAC\$AB_PSC_HD2A::
243 .ASCID \!31<!10*-!>!1* !18<!10*-!>!2* \-

244 \!9<!9*-!>!2* !15<!10*-!>\

245
246 MAC\$AB_LPG_FMT::
247 .ASCID \!14<!5SL!#*!.!#(SL) (!SL)!> \

248
249 MAC\$AB_PSS_FAO::
250 .ASCID \!31<!AC!>!9XL (!5SL.) !2XB (!3SL.) \

251
252 MAC\$AB_WAS_MSG::
253 .ASCIC /was/

254
255 MAC\$AB_WERE_MG::
256 .ASCIC /were/

257
258 MAC\$AB_NOERRM::
259 .ASCID \There were no errors, warnings or information messages.\

260
261 MAC\$AB_ERRM::
262 .ASCID \There were !SL error!%S, !SL warning!%S and \ -

263 \!SL information message!%S, on lines:\

264 MAC\$AB_WSL_FAO::
265 .ASCID \The working set limit was !SL pages.\

266
267 MAC\$AB_IFP_FAO::
268 .ASCID \!SL bytes (!SL page!%S) of virtual memory\ -

269 \ were used to buffer the intermediate code.\

```
65 68 74 20 72 65 66 66 75 62 20 6F 097D
74 61 69 64 65 6D 72 65 74 6E 69 20 0989
2E 65 64 6F 63 20 65 0995
099C 270
099C 271 MAC$AB_SYP_FAO::
099C 272 .ASCID \There !AC !SL page!%S of symbol table space allocated\
20 65 72 65 68 54 000009A4'010E0000' 099C
65 67 61 70 20 4C 53 21 20 43 41 21 09AA
6F 62 6D 79 73 20 66 6F 20 53 25 21 09B6
63 61 70 73 20 65 6C 62 61 74 20 6C 09C2
64 65 74 61 63 6F 6C 6C 61 20 65 09CE
4C 53 21 20 64 6C 6F 68 20 6F 74 20 09D9
61 20 6C 61 63 6F 6C 2D 6E 6F 6E 20 09E5
6C 61 63 6F 6C 20 4C 53 21 20 64 6E 09F1
2E 73 6C 6F 62 6D 79 73 20 09FD
0A06 274
0A06 275 MAC$AB_OBSR_FAO::
0A06 276 .ASCID \!SL source line!%S !AC read in Pass 1, producing\
6F 73 20 4C 53 21 00000A0E'010E0000' 0A06
53 25 21 65 6E 69 6C 20 65 63 72 75 0A14
6E 69 20 64 61 65 72 20 43 41 21 20 0A20
6F 72 70 20 2C 31 20 73 73 61 50 20 0A2C
67 6E 69 63 75 64 0A38
20 74 63 65 6A 62 6F 20 4C 53 21 20 0A3E
6E 69 20 53 25 21 64 72 6F 63 65 72 0A4A
2E 32 20 73 73 61 50 20 0A56
0A5E 278
0A5E 279 MAC$AB_MCD_FAO::
0A5E 280 .ASCID \!SL page!%S of virtual memory !AC used to define \
61 70 20 4C 53 21 00000A66'010E0000' 0A6C
72 69 76 20 66 6F 20 53 25 21 65 67 0A78
20 79 72 6F 6D 65 6D 20 6C 61 75 74 0A84
20 6F 74 20 64 65 73 75 20 43 41 21 0A90
20 65 6E 69 66 65 64 0A97
53 25 21 6F 72 63 61 6D 20 4C 53 21 0AA3
2E 0AA4
0AA4 282
0AA4 283 MAC$AB_CMD_FAO::
0AAF 284 .ASCID \!AD\
0AAF 285
0AAF 286 :
0AAF 287 : STRINGS FOLLOWING DESCRIBE THE DIFFERENT TIMES KEPT BY ASSEMBLER
0AAF 288 :
0AAF 289 MAC$S_IND_INI:
74 61 7A 69 6C 61 69 74 69 6E 49 00' 0AAF
6E 6F 69 0ABB
OE 0AAF
0ABE 291 MAC$S_IND_CMD:
6F 72 70 20 64 6E 61 6D 6D 6F 43 00' 0ABE
67 6E 69 73 73 65 63 0ACA
12 0ABE
31 20 73 73 61 50 00' 0AD1
06 0AD1
0AD8 293 MAC$S_IND_P1:
6C 62 61 74 20 6C 6F 62 6D 79 53 00' 0AD8
74 72 6F 73 20 65 0AE4
11 0AD8
32 20 73 73 61 50 00' 0AEA
0AEA 297 MAC$S_IND_P2:
0AEA 298 .ASCIC /Pass 2/
```

```
270
271 MAC$AB_SYP_FAO::
272 .ASCID \There !AC !SL page!%S of symbol table space allocated\
273 \ to hold !SL non-local and !SL local symbols.\
274
275 MAC$AB_OBSR_FAO::
276 .ASCID \!SL source line!%S !AC read in Pass 1, producing\
277 \ !SL object record!%S in Pass 2.\
278
279 MAC$AB_MCD_FAO::
280 .ASCID \!SL page!%S of virtual memory !AC used to define \
281 \!SL macro!%S.\
282
283 MAC$AB_CMD_FAO::
284 .ASCID \!AD\
285
286 :
287 : STRINGS FOLLOWING DESCRIBE THE DIFFERENT TIMES KEPT BY ASSEMBLER
288 :
289 MAC$S_IND_INI:
290 .ASCIC /Initialization/
291
292 MAC$S_IND_CMD:
292 .ASCIC /Command processing/
293
294 MAC$S_IND_P1:
294 .ASCIC /Pass 1/
295
296 MAC$S_IND_SORT:
296 .ASCIC /Symbol table sort/
297
298 MAC$S_IND_P2:
298 .ASCIC /Pass 2/
```


DATA STORAGE

```
06 OAEA
6C 62 61 74 20 6C 6F 62 6D 79 53 00' OAF1 299 MAC$$_IND_SYOUT:
74 75 70 74 75 6F 20 65 OAF1 300 .ASCIC /Symbol table output/
13 OAFD
15 OAF1
70 6F 6E 79 73 20 74 63 65 73 50 00' OB05 301 MAC$$_IND_PSY:
74 75 70 74 75 6F 20 73 69 73 OB05 302 .ASCIC /Psect synopsis output/
15 OB11
OB05
72 65 66 65 72 2D 73 73 6F 72 43 00' OB1B 303 MAC$$_IND_CRF:
74 75 70 74 75 6F 20 65 63 6E 65 OB1B 304 .ASCIC /Cross-reference output/
16 OB27
OB1B
72 20 72 65 6C 62 6D 65 73 73 41 00' OB32 305 MAC$$_IND_TOT:
73 6C 61 74 6F 74 20 6E 75 OB32 306 .ASCIC /Assembler run totals/
14 OB3E
OB32
OB47 307 :
OB47 308 : POINTERS TO ABOVE STRINGS AND TIME DATA WORDS FOR STATISTICS OUTPUT
OB47 309 :
OB47 310 MAC$AW_IND_NAMS::
OAAF' OB47 311 .WORD MAC$$_IND_INI
OABE' OB49 312 .WORD MAC$$_IND_CMD
OAD1' OB4B 313 .WORD MAC$$_IND_P1
OAD8' OB4D 314 .WORD MAC$$_IND_SORT
OAEA' OB4F 315 .WORD MAC$$_IND_P2
OAF1' OB51 316 .WORD MAC$$_IND_SYOUT
OB05' OB53 317 .WORD MAC$$_IND_PSY
OB1B' OB55 318 .WORD MAC$$_IND_CRF
OB32' OB57 319 .WORD MAC$$_IND_TOT
0000' OB59 320 .WORD 0
OB5B 321
OB5B 322 MAC$AW_RNT_PTRS::
0000' OB5B 323 .WORD MAC$GQ_RNT_INI
0000' OB5D 324 .WORD MAC$GQ_RNT_CMD
0000' OB5F 325 .WORD MAC$GQ_RNT_P1
0000' OB61 326 .WORD MAC$GQ_RNT_SRT
0000' OB63 327 .WORD MAC$GQ_RNT_P2
0000' OB65 328 .WORD MAC$GQ_RNT_SYO
0000' OB67 329 .WORD MAC$GQ_RNT_PSY
0000' OB69 330 .WORD MAC$GQ_RNT_CRF
0000' OB6B 331 .WORD MAC$GQ_RNT_TOT
OB6D 332
OB6D 333 MAC$AW_TIM_PTRS::
0000' OB6D 334 .WORD MAC$GQ_TIM_INI
0000' OB6F 335 .WORD MAC$GQ_TIM_CMD
0000' OB71 336 .WORD MAC$GQ_TIM_P1
0000' OB73 337 .WORD MAC$GQ_TIM_SRT
0000' OB75 338 .WORD MAC$GQ_TIM_P2
0000' OB77 339 .WORD MAC$GQ_TIM_SYO
0000' OB79 340 .WORD MAC$GQ_TIM_PSY
0000' OB7B 341 .WORD MAC$GQ_TIM_CRF
0000' OB7D 342 .WORD MAC$GQ_TIM_TOT
OB7F 343
OB7F 344 :
OB7F 345 : TABLES OF MESSAGE AND TABLE POINTERS FOR USE WITH CROSS-REFERENCE
OB7F 346 : OUTPUT.
```

DATA STORAGE

```
0B7F 347 :  
0B7F 348 :  
0B7F 349 : POINTER TO CREF HEADER MESSAGES (THE ONES SURROUNDED BY BOXES).  
0B7F 350 :  
0B7F 351 MAC$AL_CRF_TB1::  
00000067' 0B7F 352 .LONG MAC$AB_CRF_HDR ;SYMBOLS  
000001C0' 0B83 353 .LONG MAC$AB_CRF_HDM ;MACROS  
00000321' 0B87 354 .LONG MAC$AB_CRF_HDO ;OPCODES  
000003D1' 0B8B 355 .LONG MAC$AB_CRF_HDD ;DIRECTIVES  
0000046D' 0B8F 356 .LONG MAC$AB_CRF_HDG ;REGISTERS  
0B93 357 :  
0B93 358 MAC$AL_CRF_TB1A::  
0000007B' 0B93 359 .LONG MAC$AB_CRF_HDRA ;SYMBOLS  
000001D4' 0B97 360 .LONG MAC$AB_CRF_HDMA ;MACROS  
00000335' 0B9B 361 .LONG MAC$AB_CRF_HDOA ;OPCODES  
000003E5' 0B9F 362 .LONG MAC$AB_CRF_HDDA ;DIRECTIVES  
00000481' 0BA3 363 .LONG MAC$AB_CRF_HDGA ;REGISTERS  
0BA7 364 :  
0BA7 365 MAC$AL_CRF_TB1B::  
000000A4' 0BA7 366 .LONG MAC$AB_CRF_HDRB ;SYMBOLS  
000001FD' 0BAB 367 .LONG MAC$AB_CRF_HDMB ;MACROS  
0000035E' 0BAF 368 .LONG MAC$AB_CRF_HDOB ;OPCODES  
00000412' 0BB3 369 .LONG MAC$AB_CRF_Hddb ;DIRECTIVES  
000004AC' 0BB7 370 .LONG MAC$AB_CRF_HDGB ;REGISTERS  
0BBB 371 :  
0BBB 372 :  
0BBB 373 : POINTER TO CREF SECONDARY HEADER MESSAGES (NAME, VALUE, REFERENCES...)  
0BBB 374 :  
0BBB 375 MAC$AL_CRF_TB2::  
000000B8' 0BBB 376 .LONG MAC$AB_CRF_HD1 ;SYMBOLS  
00000211' 0BBF 377 .LONG MAC$AB_CRF_HD2 ;MACROS  
00000372' 0BC3 378 .LONG MAC$AB_CRF_HD3 ;OPCODES  
00000426' 0BC7 379 .LONG MAC$AB_CRF_HD4 ;DIRECTIVES  
000004C0' 0BCB 380 .LONG MAC$AB_CRF_HD5 ;REGISTERS  
0BCF 381 :  
0BCF 382 MAC$AL_CRF_TB2A::  
00000102' 0BCF 383 .LONG MAC$AB_CRF_HD1A ;SYMBOLS  
0000025C' 0BD3 384 .LONG MAC$AB_CRF_HD2A ;MACROS  
000003A7' 0BD7 385 .LONG MAC$AB_CRF_HD3A ;OPCODES  
00000450' 0BD8 386 .LONG MAC$AB_CRF_HD4A ;DIRECTIVES  
00000501' 0BDF 387 .LONG MAC$AB_CRF_HD5A ;REGISTERS  
0BE3 388 :  
0BE3 389 : POINTER TO CREF SECONDARY HEADER MESSAGES (NAME, VALUE, REFERENCES...)  
0BE3 390 : FOR WIDE COLUMN LISTINGS  
0BE3 391 :  
0BE3 392 MAC$AL_CRF_TB2W::  
0000013C' 0BE3 393 .LONG MAC$AB_CRF_HD1W ;SYMBOLS  
00000299' 0BE7 394 .LONG MAC$AB_CRF_HD2W ;MACROS  
00000372' 0BE8 395 .LONG MAC$AB_CRF_HD3 ;OPCODES  
00000426' 0BEF 396 .LONG MAC$AB_CRF_HD4 ;DIRECTIVES  
000004C0' 0BF3 397 .LONG MAC$AB_CRF_HD5 ;REGISTERS  
0BF7 398 :  
0BF7 399 MAC$AL_CRF_TB2WA::  
00000186' 0BF7 400 .LONG MAC$AB_CRF_HD1WA ;SYMBOLS  
000002E4' 0BFB 401 .LONG MAC$AB_CRF_HD2WA ;MACROS  
000003A7' 0BFF 402 .LONG MAC$AB_CRF_HD3A ;OPCODES  
00000450' 0C03 403 .LONG MAC$AB_CRF_HD4A ;DIRECTIVES
```



```
DATA STORAGE
00000501' 0C07 404 .LONG MAC$AB_CRF_HD5A ;REGISTERS
          0C08 405 :
          0C08 406 : POINTERS TO CREF CONTROL BLOCKS
          0C08 407 :
          0C08 408 MAC$AL_CRF_TB3::
00000000' 0C08 409 .LONG MAC$AL_CRF_SYCTB ;SYMBOLS
00000000' 0C0F 410 .LONG MAC$AL_CRF_MCCTB ;MACROS
00000000' 0C13 411 .LONG MAC$AL_CRF_OPCTB ;OPCODES
00000000' 0C17 412 .LONG MAC$AL_CRF_DRCTB ;DIRECTIVES
00000000' 0C1B 413 .LONG MAC$AL_CRF_RGCTB ;REGISTERS
          0C1F 414 :
          0C1F 415 : DEFS_REFS OR VALS_REFS INDICATOR FOR EACH CREF
          0C1F 416 :
          0C1F 417 MAC$AB_CRF_TB4::
00' 0C1F 418 .BYTE CRF$K_DEFS_REFS ;SYMBOLS
00' 0C20 419 .BYTE CRF$K_DEFS_REFS ;MACROS
00' 0C21 420 .BYTE CRF$K_VALS_REFS ;OPCODES
00' 0C22 421 .BYTE CRF$K_VALS_REFS ;DIRECTIVES
00' 0C23 422 .BYTE CRF$K_VALS_REFS ;REGISTERS
          0C24 423 :
          0C24 424 : TABLE OF COUNTERS OF # OF CREFS IN EACH CREF
          0C24 425 :
          0C24 426 MAC$AL_CRF_TB5::
00000000' 0C24 427 .LONG MAC$GL_CRF_CNT ;SYMBOLS
00000000' 0C28 428 .LONG MAC$GL_CRF_MCNT ;MACROS
00000000' 0C2C 429 .LONG MAC$GL_CRF_OCNT ;OPCODES
00000000' 0C30 430 .LONG MAC$GL_CRF_DCNT ;DIRECTIVES
00000000' 0C34 431 .LONG MAC$GL_CRF_RCNT ;REGISTERS
00000000' 0C38 432 .LONG 0 ;ALL DONE
          0C3C 433 :
          0C3C 434 : FINALLY, THE BIT NUMBERS TO CHECK IN CRF_FLG
          0C3C 435 :
          0C3C 436 MAC$AB_CRF_TB6::
04' 0C3C 437 .BYTE CRF$V_SYMBOLS ;SYMBOLS
01' 0C3D 438 .BYTE CRF$V_MACROS ;MACROS
02' 0C3E 439 .BYTE CRF$V_OPCODES ;OPCODES
00' 0C3F 440 .BYTE CRF$V_DIR ;DIRECTIVES
03' 0C40 441 .BYTE CRF$V_REGISTERS ;REGISTERS
          0C41 442 :
          0C41 443 : Bit number to test in control flags word for wide column listing
          0C41 444 :
          0C41 445 MAC$AL_CRF_TB7::
0000002A' 0C41 446 .LONG FLG$V_SYM2COL ; Symbols
0000002B' 0C45 447 .LONG FLG$V_MAC2COL ; Macros
00000000' 0C49 448 .LONG 0 ; Opcodes
00000000' 0C4D 449 .LONG 0 ; Directives
00000000' 0C51 450 .LONG 0 ; Registers
          0C55 451 :
          0C55 452 : Table of KEY1TABLE entries for narrow column listings
          0C55 453 :
          0C55 454 MAC$AL_CRF_TB8::
00000000' 0C55 455 .LONG SYMBOLFIELD ; Symbols
00000000' 0C59 456 .LONG MACROFIELD ; Macros
          0C5D 457 :
          0C5D 458 : Table of KEY1TABLE entries for wide column listings
          0C5D 459 :
          0C5D 460 MAC$AL_CRF_TB9::
```

DATA STORAGE

N 3

```
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```

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```
000000000' 0C5D 461
000000000' 0C61 462
              0C65 463
              0C65 464
```

```
.LONG      SYMBOLFIELD_31          ; Symbols
.LONG      MACROFIELD_31          ; Macros

.END
```

[illegible]

. = 0

INP
INP
INP
INP
INP
INP
INP

INP
INP
INP

. = 0

INP

[illegible] $\cdot = 0$

MNB
MNB
MNB
MNB
MNB
MNB
MNB
MNB
MNB
MNB

MAC\$DATA1
Symbol table

B 4

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```
CRFSK_DEFS_REFS      *****
CRFSK_VALS_REFS      *****
CRFSM_DEFAULT        = 00000012
CRFSM_DIR             = 00000001
CRFSM_MACROS          = 00000002
CRFSM_OPCODES         = 00000004
CRFSM_REGISTERS       = 00000008
CRFSM_SYMBOLS         = 00000010
CRFSV_DIR             = 00000000
CRFSV_MACROS          = 00000001
CRFSV_OPCODES         = 00000002
CRFSV_REGISTERS       = 00000003
CRFSV_SYMBOLS         = 00000004
FLGSM_ALLCHR          = 00000001
FLGSM_BOL             = 00000002
FLGSM_CHKLPND         = 00100000
FLGSM_COMPEXPR        = 00000004
FLGSM_CONT            = 00000008
FLGSM_CRF             = 40000000
FLGSM_CRSEEN          = 00000001
FLGSM_DATRPT          = 00000010
FLGSM_DBGOUT          = 00004000
FLGSM_DLIMSTR         = 00008000
FLGSM_ENDMCH          = 00000020
FLGSM_EVALEXPR        = 00000040
FLGSM_EXPOPT          = 00000080
FLGSM_EXTERR          = 00010000
FLGSM_EXTWRN          = 00020000
FLGSM_FIRSTLN         = 00000200
FLGSM_IFSTAT          = 00800000
FLGSM_IIF             = 00400000
FLGSM_INSERT          = 00000100
FLGSM_IRPC            = 20000000
FLGSM_LEXOP           = 00000002
FLGSM_LSTXST          = 00000200
FLGSM_MAC2COL         = 00000800
FLGSM_MACL            = 00000800
FLGSM_MACLTB          = 08000000
FLGSM_MACTXT          = 00010000
FLGSM_MEBLST          = 00001000
FLGSM_MOREARG         = 00002000
FLGSM_MOREINP         = 00000008
FLGSM_NEWPND          = 00000400
FLGSM_NOREF           = 01000000
FLGSM_NTTYPEPC        = 00000020
FLGSM_NULCHR          = 00040000
FLGSM_OBJXST          = 00200000
FLGSM_OPNDCHK         = 00000100
FLGSM_OPRND           = 00002000
FLGSM_OPTVFLIDX       = 00001000
FLGSM_ORDLST          = 00020000
FLGSM_P2              = 00004000
FLGSM_RPTIRP          = 10000000
FLGSM_SEQFIL          = 02000000
FLGSM_SKAN            = 00008000
FLGSM_SPECOP          = 00000004
FLGSM_SPLALL          = 04000000
```

X 01
X 01

```
FLGSM_STOIMF         = 00040000
FLGSM_SYM2COL        = 00000400
FLGSM_TOCLFLG        = 00080000
FLGSM_UPAFLG         = 00000010
FLGSM_UPDFIL         = 00000080
FLGSM_UPMARG         = 00000040
FLGSM_XCRF           = 80000000
FLGSV_ALLCHR         = 00000000
FLGSV_BOL            = 00000001
FLGSV_CHKLPND        = 00000014
FLGSV_COMPEXPR       = 00000002
FLGSV_CONT           = 00000003
FLGSV_CRF            = 0000001E
FLGSV_CRSEEN         = 00000020
FLGSV_DATRPT         = 00000004
FLGSV_DBGOUT         = 0000002E
FLGSV_DLIMSTR        = 0000002F
FLGSV_ENDMCH         = 00000005
FLGSV_EVALEXPR       = 00000006
FLGSV_EXPOPT         = 00000007
FLGSV_EXTERR         = 00000030
FLGSV_EXTWRN         = 00000031
FLGSV_FIRSTLN        = 00000029
FLGSV_IFSTAT         = 00000017
FLGSV_IIF            = 00000016
FLGSV_INSERT         = 00000008
FLGSV_IRPC           = 0000001D
FLGSV_LEXOP          = 00000021
FLGSV_LSTXST         = 00000009
FLGSV_MAC2COL        = 0000002B
FLGSV_MACL           = 0000000B
FLGSV_MACLTB         = 0000001B
FLGSV_MACTXT         = 00000010
FLGSV_MEBLST         = 0000000C
FLGSV_MOREARG        = 0000002D
FLGSV_MOREINP        = 00000023
FLGSV_NEWPND         = 0000000A
FLGSV_NOREF          = 00000018
FLGSV_NTTYPEPC       = 00000025
FLGSV_NULCHR         = 00000032
FLGSV_OBJXST         = 00000015
FLGSV_OPNDCHK        = 00000028
FLGSV_OPRND          = 0000000D
FLGSV_OPTVFLIDX      = 0000002C
FLGSV_ORDLST         = 00000011
FLGSV_P2             = 0000000E
FLGSV_RPTIRP         = 0000001C
FLGSV_SEQFIL         = 00000019
FLGSV_SKAN           = 0000000F
FLGSV_SPECOP         = 00000022
FLGSV_SPLALL         = 0000001A
FLGSV_STOIMF         = 00000012
FLGSV_SYM2COL        = 0000002A
FLGSV_TOCLFLG        = 00000013
FLGSV_UPAFLG         = 00000024
FLGSV_UPDFIL         = 00000027
FLGSV_UPMARG         = 00000026
```

: M
:=0
MAB
MAB
MAB
MAB
MAB
MAB
:=0
MXB
MXB
MXB

MACSDATA1
Symbol table

C 4

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```

FLGSV_XCRF          = 0000001F
MACSAB_CMD_FAO      00000AA4 RG 01
MACSAB_CRF_HD1      00000088 RG 01
MACSAB_CRF_HD1A     00000102 RG 01
MACSAB_CRF_HD1W     0000013C RG 01
MACSAB_CRF_HD1WA    00000186 RG 01
MACSAB_CRF_HD2      00000211 RG 01
MACSAB_CRF_HD2A     0000025C RG 01
MACSAB_CRF_HD2W     00000299 RG 01
MACSAB_CRF_HD2WA    000002E4 RG 01
MACSAB_CRF_HD3      00000372 RG 01
MACSAB_CRF_HD3A     000003A7 RG 01
MACSAB_CRF_HD4      00000426 RG 01
MACSAB_CRF_HD4A     00000450 RG 01
MACSAB_CRF_HD5      000004C0 RG 01
MACSAB_CRF_HD5A     00000501 RG 01
MACSAB_CRF_HDD      000003D1 RG 01
MACSAB_CRF_HDDA     000003E5 RG 01
MACSAB_CRF_Hddb     00000412 RG 01
MACSAB_CRF_HDG      0000046D RG 01
MACSAB_CRF_HDGA     00000481 RG 01
MACSAB_CRF_HDGB     000004AC RG 01
MACSAB_CRF_HDM      000001C0 RG 01
MACSAB_CRF_HDMA     000001D4 RG 01
MACSAB_CRF_HDMB     000001FD RG 01
MACSAB_CRF_HDO      00000321 RG 01
MACSAB_CRF_HDOA     00000335 RG 01
MACSAB_CRF_HDOB     0000035E RG 01
MACSAB_CRF_HDR      00000067 RG 01
MACSAB_CRF_HDRA     0000007B RG 01
MACSAB_CRF_HDRB     000000A4 RG 01
MACSAB_CRF_MSG      00000057 RG 01
MACSAB_CRF_TB4      00000C1F RG 01
MACSAB_CRF_TB6      00000C3C RG 01
MACSAB_DEF_TITL     00000000 RG 01
MACSAB_ERRM         000008BB RG 01
MACSAB_FAO_TIM      00000706 RG 01
MACSAB_IFP_FAO      00000940 RG 01
MACSAB_IND_HDR      0000052D RG 01
MACSAB_IND_HDRA     00000541 RG 01
MACSAB_IND_HDRB     0000056A RG 01
MACSAB_LPG_FMT      00000822 RG 01
MACSAB_MCD_FAO      00000A5E RG 01
MACSAB_MLB_FAO      00000699 RG 01
MACSAB_MLB_HD2      00000647 RG 01
MACSAB_MLB_HD2A     0000067B RG 01
MACSAB_MLB_HDR      000005F4 RG 01
MACSAB_MLB_HDRA     00000608 RG 01
MACSAB_MLB_HDRB     00000633 RG 01
MACSAB_MLB_SUM      000006D1 RG 01
MACSAB_MLB_TOT      000006B3 RG 01
MACSAB_NOERM        0000087C RG 01
MACSAB_OBSR_FAO     00000A06 RG 01
MACSAB_PSC_HD2      00000792 RG 01
MACSAB_PSC_HD2A     000007E4 RG 01
MACSAB_PSC_HDR      00000749 RG 01
MACSAB_PSC_HDRA     0000075D RG 01

```

```

MACSAB_PSC_HDRB     0000077E RG 01
MACSAB_PSS_FAO      00000845 RG 01
MACSAB_PSS_MSG      0000073A RG 01
MACSAB_RNT_MSG      0000003B RG 01
MACSAB_RUN_HDR      0000057E RG 01
MACSAB_RUN_HDRA     000005C2 RG 01
MACSAB_STB_MSG      0000002E RG 01
MACSAB_SYP_FAO      0000099C RG 01
MACSAB_TOC_MSG      0000001C RG 01
MACSAB_VERSION      00000007 RG 01
MACSAB_WAS_MSG      00000873 RG 01
MACSAB_WERE_MG      00000877 RG 01
MACSAB_WSL_FAO      00000914 RG 01
MACSAB_CRFDRCTB     ***** X 01
MACSAB_CRFMCCTB     ***** X 01
MACSAB_CRFOPCTB     ***** X 01
MACSAB_CRFRGCTB     ***** X 01
MACSAB_CRFSYCTB     ***** X 01
MACSAB_CRF_TB1      00000B7F RG 01
MACSAB_CRF_TB1A     00000B93 RG 01
MACSAB_CRF_TB1B     00000BA7 RG 01
MACSAB_CRF_TB2      00000BBB RG 01
MACSAB_CRF_TB2A     00000BCF RG 01
MACSAB_CRF_TB2W     00000BE3 RG 01
MACSAB_CRF_TB2WA    00000BF7 RG 01
MACSAB_CRF_TB3      00000C0B RG 01
MACSAB_CRF_TB5      00000C24 RG 01
MACSAB_CRF_TB7      00000C41 RG 01
MACSAB_CRF_TB8      00000C55 RG 01
MACSAB_CRF_TB9      00000C5D RG 01
MACSAB_IND_NAMS     00000B47 RG 01
MACSAB_RNT_PTRS     00000B5B RG 01
MACSAB_TIM_PTRS     00000B6D RG 01
MACSGL_CRF_CNT      ***** X 01
MACSGL_CRF_DCNT     ***** X 01
MACSGL_CRF_MCNT     ***** X 01
MACSGL_CRF_OCNT     ***** X 01
MACSGL_CRF_RCNT     ***** X 01
MACSGQ_RNT_CMD      ***** X 01
MACSGQ_RNT_CRF      ***** X 01
MACSGQ_RNT_INI      ***** X 01
MACSGQ_RNT_P1       ***** X 01
MACSGQ_RNT_P2       ***** X 01
MACSGQ_RNT_PSY      ***** X 01
MACSGQ_RNT_SRT      ***** X 01
MACSGQ_RNT_SYO      ***** X 01
MACSGQ_RNT_TOT      ***** X 01
MACSGQ_TIM_CMD      ***** X 01
MACSGQ_TIM_CRF      ***** X 01
MACSGQ_TIM_INI      ***** X 01
MACSGQ_TIM_P1       ***** X 01
MACSGQ_TIM_P2       ***** X 01
MACSGQ_TIM_PSY      ***** X 01
MACSGQ_TIM_SRT      ***** X 01
MACSGQ_TIM_SYO      ***** X 01
MACSGQ_TIM_TOT      ***** X 01
MACSS_IND_CMD       00000ABE R 01

```

MAC
HAS
CR
TAB
FF
BLN
HYP
SEM
CHR
CHR
INT
INT
INP
OBJ
LST
LST
REG
RDX
RDX
RDX
RDX
RDX
RDX
LST
STB
SYM
SYM
CHR
CHR
CHR
CHR
CHR
CHR
CHR
CHR
ARG
AUC

MAC\$DATA1
Symbol table

D 4

16-SEP-1984 01:52:47 VAX/VMS Macro V04-00
5-SEP-1984 01:47:53 [MACRO.SRC]DATA1.MAR;1

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(2)

MAC\$\$_IND_CRF	00000B1B	R	01
MAC\$\$_IND_INI	00000AAF	R	01
MAC\$\$_IND_P1	00000AD1	R	01
MAC\$\$_IND_P2	00000AEA	R	01
MAC\$\$_IND_PSY	00000B05	R	01
MAC\$\$_IND_SORT	00000AD8	R	01
MAC\$\$_IND_SYOUT	00000AF1	R	01
MAC\$\$_IND_TOT	00000B32	R	01
MACROFIELD	*****	X	01
MACROFIELD_31	*****	X	01
OPFSM_LASTOPR	= 00002000		
OPFSM_OPTEXP	= 00001000		
OPFSV_LASTOPR	= 0000000D		
OPFSV_OPTEXP	= 0000000C		
SYMBOLFIELD	*****	X	01
SYMBOLFIELD_31	*****	X	01
X1	= 00000033		
X2	= 00080000		

+-----+
! Psect synopsis !
+-----+

PSECT name	Allocation	PSECT No.	Attributes														
ABS	00000000 (0.)	00 (0.)	NOPIC	USR	CON	ABS	LCL	NOSHR	NOEXE	NORD	NOWRT	NOVEC	BYTE				
MAC\$RO_DATA	00000C65 (3173.)	01 (1.)	NOPIC	USR	CON	REL	GBL	NOSHR	NOEXE	RD	NOWRT	NOVEC	LONG				

+-----+
! Performance indicators !
+-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	35	00:00:00.07	00:00:03.80
Command processing	154	00:00:00.44	00:00:04.74
Pass 1	160	00:00:01.46	00:00:06.13
Symbol table sort	0	00:00:00.21	00:00:00.50
Pass 2	123	00:00:00.99	00:00:03.62
Symbol table output	29	00:00:00.13	00:00:00.36
Psect synopsis output	1	00:00:00.01	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	504	00:00:03.32	00:00:19.18

The working set limit was 1050 pages.
21942 bytes (43 pages) of virtual memory were used to buffer the intermediate code.
There were 20 pages of symbol table space allocated to hold 246 non-local and 0 local symbols.
464 source lines were read in Pass 1, producing 27 object records in Pass 2.
1 page of virtual memory was used to define 1 macro.

+-----+
! Macro library statistics !
+-----+

Macro library name

Macros defined

_ \$255\$DUA28:[MACRO.OBJ]MACRO.MLB;1
_ \$255\$DUA28:[SYSLIB]STARLET.MLB;2
TOTALS (all libraries)

2
0
2

88 GETS were required to define 2 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LISS\$:DATA1/OBJ=OBJ\$:DATA1 MSRC\$:DATA1/UPDATE=(ENH\$:DATA1)+LIB\$:MACRO/LIB

. = 0

MLF
MLF

MLF
MLF
MLF
MLF
MLF

0225 AH-BT13A-SE
VAX/VMS V4.0

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