J 4

```
   AAAAAAAAA     NNN         NNN     AAAAAAAAA     LLL              YYY         YYY  ZZZZZZZZZZZZZZZ
   AAAAAAAAA     NNN         NNN     AAAAAAAAA     LLL              YYY         YYY  ZZZZZZZZZZZZZZZ
   AAAAAAAAA     NNN         NNN     AAAAAAAAA     LLL              YYY         YYY  ZZZZZZZZZZZZZZZ
AAA         AAA  NNN         NNN  AAA         AAA  LLL              YYY         YYY              ZZZ
AAA         AAA  NNN         NNN  AAA         AAA  LLL              YYY         YYY              ZZZ
AAA         AAA  NNN         NNN  AAA         AAA  LLL              YYY         YYY              ZZZ
AAA         AAA  NNNNNN      NNN  AAA         AAA  LLL                 YYY   YYY              ZZZ
AAA         AAA  NNNNNN      NNN  AAA         AAA  LLL                 YYY   YYY              ZZZ
AAA         AAA  NNNNNN      NNN  AAA         AAA  LLL                 YYY   YYY              ZZZ
AAA         AAA  NNN   NNN   NNN  AAA         AAA  LLL                    YYY              ZZZ
AAA         AAA  NNN   NNN   NNN  AAA         AAA  LLL                    YYY              ZZZ
AAA         AAA  NNN   NNN   NNN  AAA         AAA  LLL                    YYY              ZZZ
AAAAAAAAAAAAAAA  NNN      NNNNNN  AAAAAAAAAAAAAAA  LLL                    YYY           ZZZ
AAAAAAAAAAAAAAA  NNN      NNNNNN  AAAAAAAAAAAAAAA  LLL                    YYY           ZZZ
AAAAAAAAAAAAAAA  NNN      NNNNNN  AAAAAAAAAAAAAAA  LLL                    YYY           ZZZ
AAA         AAA  NNN         NNN  AAA         AAA  LLL                    YYY        ZZZ
AAA         AAA  NNN         NNN  AAA         AAA  LLL                    YYY        ZZZ
AAA         AAA  NNN         NNN  AAA         AAA  LLL                    YYY        ZZZ
AAA         AAA  NNN         NNN  AAA         AAA  LLLLLLLLLLLLLLL        YYY        ZZZZZZZZZZZZZZZ
AAA         AAA  NNN         NNN  AAA         AAA  LLLLLLLLLLLLLLL        YYY        ZZZZZZZZZZZZZZZ
AAA         AAA  NNN         NNN  AAA         AAA  LLLLLLLLLLLLLLL        YYY        ZZZZZZZZZZZZZZZ
```

**FILE**ID**EXEFIXUP

```
EEEEEEEEEE  XX      XX  EEEEEEEEEE  FFFFFFFFFF    IIIIII    XX      XX  UU      UU  PPPPPPPP
EEEEEEEEEE  XX      XX  EEEEEEEEEE  FFFFFFFFFF    IIIIII    XX      XX  UU      UU  PPPPPPPP
EE          XX      XX  EE          FF              II      XX      XX  UU      UU  PP      PP
EE          XX      XX  EE          FF              II      XX      XX  UU      UU  PP      PP
EE            XX  XX    EE          FF              II        XX  XX    UU      UU  PP      PP
EE            XX  XX    EE          FF              II        XX  XX    UU      UU  PP      PP
EEEEEEEE        XX      EEEEEEEE    FFFFFFFF        II          XX      UU      UU  PPPPPPPP
EEEEEEEE        XX      EEEEEEEE    FFFFFFFF        II          XX      UU      UU  PPPPPPPP
EE            XX  XX    EE          FF              II        XX  XX    UU      UU  PP
EE            XX  XX    EE          FF              II        XX  XX    UU      UU  PP
EE          XX      XX  EE          FF              II      XX      XX  UU      UU  PP              ....
EE          XX      XX  EE          FF              II      XX      XX  UU      UU  PP              ....
EEEEEEEEEE  XX      XX  EEEEEEEEEE  FF            IIIIII    XX      XX  UUUUUUUUUU  PP              ....
EEEEEEEEEE  XX      XX  EEEEEEEEEE  FF            IIIIII    XX      XX  UUUUUUUUUU  PP              ....

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
```

```
0 %title 'EXEFIXUP - Analyze Fixup Info'
0         module exefixup (
1                         ident='V04-000') = beg'n
1
1 !
1 !****************************************************************************
1 !*                                                                          *
1 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                 *
1 !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                  *
1 !*  ALL RIGHTS RESERVED.                                                    *
1 !*                                                                          *
1 !*  THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED   *
1 !*  ONLY IN  ACCORDANCE WITH  THE  TERMS  OF  SUCH  LICENSE  AND WITH THE   *
1 !*  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR  ANY  OTHER   *
1 !*  COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY   *
1 !*  OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY   *
1 !*  TRANSFERRED.                                                            *
1 !*                                                                          *
1 !*  THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE   *
1 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT   *
1 !*  CORPORATION.                                                            *
1 !*                                                                          *
1 !*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS   *
1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                 *
1 !*                                                                          *
1 !*                                                                          *
1 !****************************************************************************
1 !
1
1 !++
1 ! Facility:     VAX/VMS Analyze Facility, Analyze Image Fixup Info
1 !
1 ! Abstract:     This module is responsible for analyzing the fixup info
1 !               section of an image.  This section contains info necessary
1 !               for the linking and activation of shareable images.
1 !
1 !
1 ! Environment:
1 !
1 ! Author: Paul C. Anagnostopoulos, Creation Date: 20 April 1981
1 !
1 ! Modified By:
1 !
1 !       V03-003 MCN0167         Maria del C. Nasr       02-May-1984
1 !               Get the length of the fixup section cells only once,
1 !               for the first one, and use this value for all the cells.
1 !
1 !       V03-002 MCN0158         Maria del C. Nasr       22-Mar-1984
1 !               Use SHL$C_MAXNAMLNG for size of shareable image name
1 !               to pass as a parameter to ANL$CHECK_SYMBOL.  Eliminate
1 !               declaration of local loop counter I.  Determine the
1 !               length to add for the fixup section, to support new
1 !               length.
1 !
1 !       V03-001 PCA1011         Paul C. Anagnostopoulos  1-Apr-1983
1 !               Change the message prefix to ANLOBJ$_ to ensure that
1 !               message symbols are unique across all ANALYZEs.  This
```

```
;    58          0058  1 !                  is necessitated by the new merged message files.
;    59          0059  1 !--
;    61         0060   1 %sbttl 'Module Declarations'
;    62         0061   1 !
;    63         0062   1 ! Libraries and Requires:
;    64         0063   1 !
;    65         0064   1
;    66         0065   1 library 'lib';
;    67         0066   1 require 'objexereq';
;    68         0502   1
;    69         0503   1 !
;    70         0504   1 ! Table of Contents:
;    71         0505   1 !
;    72         0506   1
;    73         0507   1 forward routine
;    74         0508   1         anl$image_fixup_info;
;    75         0509   1
;    76         0510   1 !
;    77         0511   1 ! External References:
;    78         0512   1 !
;    79         0513   1
;    80         0514   1 external routine
;    81         0515   1         anl$check_flags,
;    82         0516   1         anl$check_symbol,
;    83         0517   1         anl$format_error,
;    84         0518   1         anl$format_flags,
;    85         0519   1         anl$format_line,
;    86         0520   1         anl$format_protection,
;    87         0521   1         anl$interact,
;    88         0522   1         anl$map_fixup_section,
;    89         0523   1         anl$report_page,
;    90         0524   1         anl$report_line;
;    91         0525   1
;    92         0526   1 external
;    93         0527   1         anl$gb_interactive: byte;
;    94         0528   1
;    95         0529   1 !
;    96         0530   1 ! Own Variables:
;    97         0531   1 !
;    99         0532  1 %sbttl 'ANL$IMAGE_FIXUP_INFO - Analyze Fixup Info'
;   100         0533  1 !++
;   101         0534  1 ! Functional Description:
;   102         0535  1 !       This routine is responsible for the analysis of the fixup info
;   103         0536  1 !       section of a shareable image.
;   104         0537  1 !
;   105         0538  1 ! Formal Parameters:
;   106         0539  1 !       image_base              Starting address of the complete image.
;   107         0540  1 !       fixup_size              Number of blocks of fixup info.
;   108         0541  1 !       fixup_vbn               VBN of fixup info.
;   109         0542  1 !
;   110         0543  1 ! Implicit Inputs:
;   111         0544  1 !       global data
;   112         0545  1 !
;   113         0546  1 ! Implicit Outputs:
;   114         0547  1 !       global data
;   115         0548  1 !
;   116         0549  1 ! Returned Value:
;   117         0550  1 !       If interactive session:  true if we are to continue, false otherwise.
;   118         0551  1 !
;   119         0552  1 ! Side Effects:
;   120         0553  1 !
;   121         0554  1 !--
;   122         0555  1
;   123         0556  1
;   124         0557  2 global routine anl$image_fixup_info(image_base,fixup_size,fixup_vbn) = begin
;   125         0558  2
;   126         0559  2 own
;   127         0560  2         flags_def: vector[2,long] initial(
;   128         0561  2                                 0,
;   129         0562  2                                 uplit byte (%ascic 'IAF$V_SHR'));
;   130         0563  2
;   131         0564  2 local
;   132         0565  2         fp: ref block[,byte],
;   133         0566  2         end_ptr: ref block[,byte],
;   134         0567  2         sp: ref block[,byte],
;   135         0568  2         count: long,
;   136         0569  2         long_array: vector[4,long];
;   137         0570  2
;   138         0571  2
;   139         0572  2 ! We begin with a nice heading on a new page.
;   140         0573  2
;   141         0574  2 anl$report_page();
;   142         0575  2 anl$format_line(0,0,anlobj$_exefixup);
;   143         0576  2 anl$report_line(-1);
;   144         0577  2 anl$report_line(-1);
;   145         0578  2
;   146         0579  2 ! If the fixup size and VBN are zero, then there was no fixup section.
;   147         0580  2 ! Tell the user and quit.
;   148         0581  2
;   149         0582  3 if .fixup_size eqlu 0 then (
;   150         0583  3         anl$format_line(0,1,anlobj$_exefixupnone);
;   151         0584  3         return true;
;   152         0585  2 );
;   153         0586  2
;   154         0587  2 ! Map the fixup section into memory.  If the routine returns zero, then
;   155         0588  2 ! we couldn't, so tell the user.
```

```
2
2 fp = anl$map_fixup_section(.fixup_size,.fixup_vbn);
3 if .fp eqla 0 then (
3         anl$format_error(anlobj$_exebadfixupvbn,.fixup_vbn,.fixup_size);
3         return;
2 );
2
2 ! Set up a pointer to the end of the section so we can test for it.
2
2 end_ptr = .fp + .fixup_size*512;
2
2 ! Now we will format the fixed part of the fixup info.  The only items
2 ! we need to bother with are the flags, shareable image count,
2 ! and extra allowed count.
2
2 anl$format_line(3,1,anlobj$_exefixfixed);
2 anl$report_line(-1);
2 anl$format_flags(2,anlobj$_exefixflags,.fp[iaf$w_flags],flags_def);
2 anl$check_flags(.fp[iaf$w_flags],flags_def);
2 anl$format_line(0,2,anlobj$_exefixcount,.fp[iaf$l_shrimgcnt]);
2 anl$format_line(0,2,anlobj$_exefixextra,.fp[iaf$l_shlextra]);
2
2 ! If this is an interactive session, then let's see what the user wants to do.
2
2 if .anl$gb_interactive then
2         if not anl$interact() then
2                 return false;
```

```
;  184          0616  2 ! Now we are going to print the shareable image list.  This involves
;  185          0617  2 ! only the name of the image.  And the first list entry has no name,
;  186          0618  2 ! because it refers to this image.
;  187          0619  2
;  188          0620  2 anl$report_line(-1);
;  189          0621  2 anl$format_line(3,1,anlobj$_exefixlist);
;  190          0622  2 anl$report_line(-1);
;  191          0623  2
;  192          0624  2 sp = .fp + .fp[iaf$l_shlstoff];
;  193          0625  2
;  194          0626  3 begin
;  195          0627  3
;  196          0628  3 local
;  197          0629  3         cell_size;
;  198          0630  3
;  199          0631  3 If .sp[shl$b_shl_size] neq 0
;  200          0632  3 then
;  201          0633  3         cell_size = .sp[shl$b_shl_size]
;  202          0634  3 else
;  203          0635  3         cell_size = shl$c_old_shl_size;
;  204          0636  3
;  205          0637  4 incru i from 0 to .fp[iaf$l_shrimgcnt]-1 do (
;  206          0638  4         local
;  207          0639  4                 name_dsc: descriptor;
;  208          0640  4
;  209          0641  4         if .i eqlu 0 then
;  210          0642  4                 anl$format_line(0,2,anlobj$_exefixname0,.i)
;  211          0643  5         else (
;  212          0644  5                 anl$format_line(0,2,anlobj$_exefixname,.i,sp[shl$t_imgnam]);
;  213          0645  5                 build_descriptor(name_dsc,.sp[shl$b_namlng],sp[shl$t_imgnam]+1);
;  214          0646  5                 anl$check_symbol(name_dsc, shl$c_maxnamlng);
;  215          0647  4         );
;  216          0648  4         sp = .sp + .cell_size;
;  217          0649  3 );
;  218          0650  2 end;
;  219          0651  2
;  220          0652  2 ! If this is an interactive session, then let's see what the user wants to do.
;  221          0653  2
;  222          0654  2 if .anl$gb_interactive then
;  223          0655  2         if not anl$interact() then
;  224          0656  2                 return false;
```

```
2 ! Now we will analyze the external address data (G^ fixups).  For each
2 ! shareable image with such fixups, we have a fixup count, the image
2 ! number, and a list of references.
2
2
3 if .fp[iaf$l_g_fixoff] nequ 0 then (
3
3         anl$report_line(-1);
3         anl$format_line(3,1,anlobj$_exefixg);
3         sp = .fp + .fp[iaf$l_g_fixoff];
3
3         ! Loop until we get to the end of the data.
3
4         while .sp[0,0,32,0] nequ 0 do (
4
4                 ! If we have run off the end of the section, then the
4                 ! end of oata marker is missing.
4
5                 if .sp geqa .end_ptr then (
5                         anl$format_error(anlobj$_exebadfixupend);
5         exitloop;
4                 );
4
4                 ! Format a line with the count and image number.
4
4                 count = .sp[0,0,32,0];
4                 sp = .sp + 4;
4                 anl$report_line(-1);
4                 anl$format_line(2,2,anlobj$_exefixgimage,.count,.sp[0,0,32,0]);
4                 sp = .sp + 4;
4
4                 ! Loop through the references and format them 4 to a line.
4
5                 incru i from 0 to .count-1 do (
5                         long_array[.i mod 4] = .sp[0,0,32,0];
5                         sp = .sp + 4;
5
5                         if .i mod 4 eqlu 3 or .i eqlu .count-1 then
5                                 anl$format_line(0,3,anlobj$_exefixgline,.i mod 4 + 1,
5                                         .long_array[0],.long_array[1],.long_array[2],.long_array[3])
4                 );
3         );
3
3         ! If this is an interactive session, then let's see what the user
3         ! wants to do.
3
3         if .anl$gb_interactive then
3                 if not anl$interact() then
3                         return false;
2 );
```

```
;  277          0707  2 ! Now we will analyze the internal address data (.ADDRESS fixups).  For each
;  278          0708  2 ! shareable image with such fixups, we have a fixup count, the image
;  279          0709  2 ! number, and a list of offsets.
;  280          0710  2
;  281          0711  3 if .fp[iaf$l_dotadroff] nequ 0 then (
;  282          0712  3
;  283          0713  3         ! Put out a heading line including the base address of the image,
;  284          0714  3         ! since the address are relative to it.
;  285          0715  3
;  286          0716  3         anl$report_line(-1);
;  287          0717  3         anl$format_line(3,1,anlobj$_exefixa,.image_base);
;  288          0718  3         sp = .fp + .fp[iaf$l_dotadroff];
;  289          0719  3
;  290          0720  3         ! Loop until we get to the end of the data.
;  291          0721  3
;  292          0722  4         while .sp[0,0,32,0] nequ 0 do (
;  293          0723  4
;  294          0724  4                 ! If we have run off the end of the section, then the
;  295          0725  4                 ! end of data marker is missing.
;  296          0726  4
;  297          0727  5                 if .sp geqa .end_ptr then (
;  298          0728  5                         anl$format_error(anlobj$_exebadfixupend);
;  299          0729  5         exitloop;
;  300          0730  4                 );
;  301          0731  4
;  302          0732  4                 ! Format a line with the count and image number.
;  303          0733  4
;  304          0734  4                 count = .sp[0,0,32,0];
;  305          0735  4                 sp = .sp + 4;
;  306          0736  4                 anl$report_line(-1);
;  307          0737  4                 anl$format_line(2,2,anlobj$_exefixaimage,.count,.sp[0,0,32,0]);
;  308          0738  4                 sp = .sp + 4;
;  309          0739  4
;  310          0740  4                 ! Loop through the references and format them 4 to a line.
;  311          0741  4
;  312          0742  5                 incru i from 0 to .count-1 do (
;  313          0743  5                         long_array[.i mod 4] = .sp[0,0,32,0];
;  314          0744  5                         sp = .sp + 4;
;  315          0745  5
;  316          0746  5                         if .i mod 4 eqlu 3 or .i eqlu .count-1 then
;  317          0747  5                                 anl$format_line(0,3,anlobj$_exefixaline,.i mod 4 + 1,
;  318          0748  5                                                 .long_array[0],.long_array[1],.long_array[2],.long_array[3])
;  319          0749  4                 );
;  320          0750  3         );
;  321          0751  3
;  322          0752  3         ! If this is an interactive session, then let's see what the user
;  323          0753  3         ! wants to do.
;  324          0754  3
;  325          0755  3         if .anl$gb_interactive then
;  326          0756  3                 if not anl$interact() then
;  327          0757  3                         return false;
;  328          0758  2 );
```

```
2 ! Now we will analyze the section protection change data.  This consists
2 ! of a count of changes, followed by the changes.  Each change specifies
2 ! the address and extent of the section, along with its new protection.
2
3 if .fp[iaf$l_chgprtoff] nequ 0 then (
3
3               ! Put out a heading line including the base address of the image,
3               ! since the address are relative to it.
3
3               anl$report_line(-1);
3               anl$format_line(3,1,anlobj$_exefixp,.image_base);
3               sp = .fp + .fp[iaf$l_chgprtoff];
3               count = .sp[0,0,32,0];
3               sp = .sp + 4;
3
3               ! Now we will loop through the change entries.
3
4               incru i from 1 to .count do (
4
4                       ! If we have run off the end of the section, then the
4                       ! count is screwed up.
4
5                       if .sp geqa .end_ptr then (
5                               anl$format_error(anlobj$_exebadfixupend);
5               exitloop;
4                       );
4
4                       ! Format the information about this change.
4
4                       anl$report_line(-1);
4                       anl$format_line(2,2,anlobj$_exefixpsect,.sp[icp$l_baseva],.sp[icp$w_npages]);
4                       anl$format_protection(2,.sp[icp$w_newprt]);
4
4                       ! Advance to the next change entry.
4
4                       sp = .sp + 8;
3               );
3
3               ! If this is an interactive session, then let's see what the user
3               ! wants to do.
3
3               if .anl$gb_interactive then
3                       if not anl$interact() then
3                               return false;
2 );
```

```
;  376          0804  2 ! We are all done.  Free up the memory mapping the fixup section.
;  377          0805  2
;  378          0806  2 anl$map_fixup_section();
;  379          0807  2
;  380          0808  2 return true;
;  381          0809  2
;  382          0810  1 end;
; INFO#212                L1:0592
; Null expression appears in value-required context


                                                                          .TITLE  EXEFIXUP EXEFIXUP - Analyze Fixup Info
                                                                          .IDENT  \V04-000\

                                                                          .PSECT  $PLIT$,NOWRT,NOEXE,2

                    52  48  53  5F  56  24  46  41  49  09  00000 P.AAA:  .ASCII  <9>\IAF$V_SHR\                                  ;

                                                                          .PSECT  $OWN$,NOEXE,2

                                                    00000000  00000 FLAGS_DEF:
                                                                          .LONG   0                                               ;
                                                    00000000' 00004       .ADDRESS P.AAA                                          ;

                                                                          .EXTRN  ANLOBJ$_OK, ANLOBJ$_ANYTHING
                                                                          .EXTRN  ANLOBJ$_DATATYPE
                                                                          .EXTRN  ANLOBJ$_ERRORCOUNT
                                                                          .EXTRN  ANLOBJ$_ERRORNONE
                                                                          .EXTRN  ANLOBJ$_ERRORS, ANLOBJ$_EXEFIXA
                                                                          .EXTRN  ANLOBJ$_EXEFIXAIMAGE
                                                                          .EXTRN  ANLOBJ$_EXEFIXALINE
                                                                          .EXTRN  ANLOBJ$_EXEFIXCOUNT
                                                                          .EXTRN  ANLOBJ$_EXEFIXEXTRA
                                                                          .EXTRN  ANLOBJ$_EXEFIXFIXED
                                                                          .EXTRN  ANLOBJ$_EXEFIXFLAGS
                                                                          .EXTRN  ANLOBJ$_EXEFIXG
                                                                          .EXTRN  ANLOBJ$_EXEFIXGIMAGE
                                                                          .EXTRN  ANLOBJ$_EXEFIXGLINE
                                                                          .EXTRN  ANLOBJ$_EXEFIXLIST
                                                                          .EXTRN  ANLOBJ$_EXEFIXNAME
                                                                          .EXTRN  ANLOBJ$_EXEFIXNAMEO
                                                                          .EXTRN  ANLOBJ$_EXEFIXP
                                                                          .EXTRN  ANLOBJ$_EXEFIXPSECT
                                                                          .EXTRN  ANLOBJ$_EXEFIXUP
                                                                          .EXTRN  ANLOBJ$_EXEFIXUPNONE
                                                                          .EXTRN  ANLOBJ$_EXEGST, ANLOBJ$_EXEHDR
                                                                          .EXTRN  ANLOBJ$_EXEHDRACTIVE
                                                                          .EXTRN  ANLOBJ$_EXEHDRBLKCOUNT
                                                                          .EXTRN  ANLOBJ$_EXEHDRCHANCOUNT
                                                                          .EXTRN  ANLOBJ$_EXEHDRCHANDEF
                                                                          .EXTRN  ANLOBJ$_EXEHDRDECECO
                                                                          .EXTRN  ANLOBJ$_EXEHDRDMT
                                                                          .EXTRN  ANLOBJ$_EXEHDRDST
                                                                          .EXTRN  ANLOBJ$_EXEHDRFILEID
                                                                          .EXTRN  ANLOBJ$_EXEHDRFIXED
                                                                          .EXTRN  ANLOBJ$_EXEHDRFLAGS
                                                                          .EXTRN  ANLOBJ$_EXEHDRGBLIDENT
```

```
        .EXTRN  ANLOBJ$_EXEHDRGST
        .EXTRN  ANLOBJ$_EXEHDRIDENT
        .EXTRN  ANLOBJ$_EXEHDRIMAGEID
        .EXTRN  ANLOBJ$_EXEHDRISD
        .EXTRN  ANLOBJ$_EXEHDRISDBASE
        .EXTRN  ANLOBJ$_EXEHDRISDCOUNT
        .EXTRN  ANLOBJ$_EXEHDRISDFLAGS
        .EXTRN  ANLOBJ$_EXEHDRISDGBLNAM
        .EXTRN  ANLOBJ$_EXEHDRISDNUM
        .EXTRN  ANLOBJ$_EXEHDRISDPFCDEF
        .EXTRN  ANLOBJ$_EXEHDRISDPFCSIZ
        .EXTRN  ANLOBJ$_EXEHDRISDTYPE
        .EXTRN  ANLOBJ$_EXEHDRISDVBN
        .EXTRN  ANLOBJ$_EXEHDRLINKID
        .EXTRN  ANLOBJ$_EXEHDRMATCH
        .EXTRN  ANLOBJ$_EXEHDRNAME
        .EXTRN  ANLOBJ$_EXEHDRNOPATCH
        .EXTRN  ANLOBJ$_EXEHDRPAGECOUNT
        .EXTRN  ANLOBJ$_EXEHDRPAGEDEF
        .EXTRN  ANLOBJ$_EXEHDRPATCH
        .EXTRN  ANLOBJ$_EXEHDRPATCHDATE
        .EXTRN  ANLOBJ$_EXEHDRPRIV
        .EXTRN  ANLOBJ$_EXEHDRROPATCH
        .EXTRN  ANLOBJ$_EXEHDRRWPATCH
        .EXTRN  ANLOBJ$_EXEHDRSYMDBG
        .EXTRN  ANLOBJ$_EXEHDRSYSVER
        .EXTRN  ANLOBJ$_EXEHDRTEXTVBN
        .EXTRN  ANLOBJ$_EXEHDRTIME
        .EXTRN  ANLOBJ$_EXEHDRTYPEEXE
        .EXTRN  ANLOBJ$_EXEHDRTYPELIM
        .EXTRN  ANLOBJ$_EXEHDRUSERECO
        .EXTRN  ANLOBJ$_EXEHDRXFER1
        .EXTRN  ANLOBJ$_EXEHDRXFER2
        .EXTRN  ANLOBJ$_EXEHDRXFER3
        .EXTRN  ANLOBJ$_EXEHEADING
        .EXTRN  ANLOBJ$_EXEPATCH
        .EXTRN  ANLOBJ$_FLAG, ANLOBJ$_HEXDATA
        .EXTRN  ANLOBJ$_HEXHEADING1
        .EXTRN  ANLOBJ$_HEXHEADING2
        .EXTRN  ANLOBJ$_INDMSGSEC
        .EXTRN  ANLOBJ$_INTERACT
        .EXTRN  ANLOBJ$_MASK, ANLOBJ$_OBJCPRREC
        .EXTRN  ANLOBJ$_OBJDBGREC
        .EXTRN  ANLOBJ$_OBJENV, ANLOBJ$_OBJEOMFLAGS
        .EXTRN  ANLOBJ$_OBJEOMREC
        .EXTRN  ANLOBJ$_OBJEOMSEVABT
        .EXTRN  ANLOBJ$_OBJEOMSEVERR
        .EXTRN  ANLOBJ$_OBJEOMSEVIGN
        .EXTRN  ANLOBJ$_OBJEOMSEVRES
        .EXTRN  ANLOBJ$_OBJEOMSEVSUC
        .EXTRN  ANLOBJ$_OBJEOMSEVWRN
        .EXTRN  ANLOBJ$_OBJEOMWREC
        .EXTRN  ANLOBJ$_OBJFADPASSMECH
        .EXTRN  ANLOBJ$_OBJGSDENV
        .EXTRN  ANLOBJ$_OBJGSDENVFLAGS
        .EXTRN  ANLOBJ$_OBJGSDENVPAR
        .EXTRN  ANLOBJ$_OBJGSDEPM
        .EXTRN  ANLOBJ$_OBJGSDEPMW
        .EXTRN  ANLOBJ$_OBJGSDIDC
        .EXTRN  ANLOBJ$_OBJGSDIDCENT
        .EXTRN  ANLOBJ$_OBJGSDIDCFLAGS
        .EXTRN  ANLOBJ$_OBJGSDIDCMATCH
        .EXTRN  ANLOBJ$_OBJGSDIDCOBJ
        .EXTRN  ANLOBJ$_OBJGSDIDCVALA
        .EXTRN  ANLOBJ$_OBJGSDIDCVALB
        .EXTRN  ANLOBJ$_OBJGSDLEPM
        .EXTRN  ANLOBJ$_OBJGSDLPRO
        .EXTRN  ANLOBJ$_OBJGSDLSY
        .EXTRN  ANLOBJ$_OBJGSDPRO
        .EXTRN  ANLOBJ$_OBJGSDPROW
        .EXTRN  ANLOBJ$_OBJGSDPSC
        .EXTRN  ANLOBJ$_OBJGSDPSCALIGN
        .EXTRN  ANLOBJ$_OBJGSDPSCALLOC
        .EXTRN  ANLOBJ$_OBJGSDPSCBASE
        .EXTRN  ANLOBJ$_OBJGSDPSCFLAGS
        .EXTRN  ANLOBJ$_OBJGSDREC
        .EXTRN  ANLOBJ$_OBJGSDSPSC
        .EXTRN  ANLOBJ$_OBJGSDSYM
        .EXTRN  ANLOBJ$_OBJGSDSYMW
        .EXTRN  ANLOBJ$_OBJGTXREC
        .EXTRN  ANLOBJ$_OBJHDRIGNREC
        .EXTRN  ANLOBJ$_OBJHEADING
        .EXTRN  ANLOBJ$_OBJLITINDEX
        .EXTRN  ANLOBJ$_OBJLNKREC
        .EXTRN  ANLOBJ$_OBJLNMREC
        .EXTRN  ANLOBJ$_OBJMHDCREATE
        .EXTRN  ANLOBJ$_OBJMHDNAME
        .EXTRN  ANLOBJ$_OBJMHDPATCH
        .EXTRN  ANLOBJ$_OBJMHDREC
        .EXTRN  ANLOBJ$_OBJMHDRECSIZ
        .EXTRN  ANLOBJ$_OBJMHDSTRLVL
        .EXTRN  ANLOBJ$_OBJMHDVERSION
        .EXTRN  ANLOBJ$_OBJMTCCORRECT
        .EXTRN  ANLOBJ$_OBJMTCINPUT
        .EXTRN  ANLOBJ$_OBJMTCNAME
        .EXTRN  ANLOBJ$_OBJMTCREC
        .EXTRN  ANLOBJ$_OBJMTCSEQNUM
        .EXTRN  ANLOBJ$_OBJMTCUIC
        .EXTRN  ANLOBJ$_OBJMTCVERSION
        .EXTRN  ANLOBJ$_OBJMTCWHEN
        .EXTRN  ANLOBJ$_OBJPROARGCOUNT
        .EXTRN  ANLOBJ$_OBJPROARGNUM
        .EXTRN  ANLOBJ$_OBJPSECT
        .EXTRN  ANLOBJ$_OBJSRCREC
        .EXTRN  ANLOBJ$_OBJSTATHEADING1
        .EXTRN  ANLOBJ$_OBJSTATHEADING2
        .EXTRN  ANLOBJ$_OBJSTATLINE
        .EXTRN  ANLOBJ$_OBJSTATTOTAL
        .EXTRN  ANLOBJ$_OBJSYMBOL
        .EXTRN  ANLOBJ$_OBJSYMFLAGS
        .EXTRN  ANLOBJ$_OBJTIRARGINDEX
        .EXTRN  ANLOBJ$_OBJTIRCMD
        .EXTRN  ANLOBJ$_OBJTIRCMDSTK
        .EXTRN  ANLOBJ$_OBJTBTREC
        .EXTRN  ANLOBJ$_OBJTIRREC
        .EXTRN  ANLOBJ$_OBJTIRSTOIM
        .EXTRN  ANLOBJ$_OBJTIRVIELD
        .EXTRN  ANLOBJ$_OBJTTLREC
        .EXTRN  ANLOBJ$_OBJVALUE
        .EXTRN  ANLOBJ$_OBJUVALUE
        .EXTRN  ANLOBJ$_PROTECTION
        .EXTRN  ANLOBJ$_SEVERITY
        .EXTRN  ANLOBJ$_TEXT, ANLOBJ$_TEXTHDR
        .EXTRN  ANLOBJ$_NOSUCHMOD
        .EXTRN  ANLOBJ$_BADDATE
        .EXTRN  ANLOBJ$_BADHDRBLKCOUNT
        .EXTRN  ANLOBJ$_BADSEVERITY
        .EXTRN  ANLOBJ$_BADSYM1ST
        .EXTRN  ANLOBJ$_BADSYMCHAR
        .EXTRN  ANLOBJ$_BADSYMLEN
        .EXTRN  ANLOBJ$_EXEBADFIXUPEND
        .EXTRN  ANLOBJ$_EXEBADFIXUPISD
        .EXTRN  ANLOBJ$_EXEBADFIXUPVBN
        .EXTRN  ANLJBJ$_EXEBADISDS1
        .EXTRN  ANLOBJ$_EXEBADISDTYPE
        .EXTRN  ANLOBJ$_EXEBADMATCH
        .EXTRN  ANLOBJ$_EXEBADPATCHLEN
        .EXTRN  ANLOBJ$_EXEBADOBJ
        .EXTRN  ANLOBJ$_EXEBADTYPE
        .EXTRN  ANLOBJ$_EXEBADXFERO
        .EXTRN  ANLOBJ$_EXEHDRISDLONG
        .EXTRN  ANLOBJ$_EXEHDRLONG
        .EXTRN  ANLOBJ$_EXEISDLENDZRO
        .EXTRN  ANLOBJ$_EXEISDLENGBL
        .EXTRN  ANLOBJ$_EXEISDLENPRIV
        .EXTRN  ANLOBJ$_EXENOTNATIVE
        .EXTRN  ANLOBJ$_EXTRABYTES
        .EXTRN  ANLOBJ$_FIELDFIT
        .EXTRN  ANLOBJ$_FLAGERROR
        .EXTRN  ANLOBJ$_NOTOK, ANLOBJ$_OBJBADIDCMATCH
        .EXTRN  ANLOBJ$_OBJBADNUM
        .EXTRN  ANLOBJ$_OBJBADPOP
        .EXTRN  ANLOBJ$_OBJBADPUSH
        .EXTRN  ANLOBJ$_OBJBADTYPE
        .EXTRN  ANLOBJ$_OBJBADVIELD
        .EXTRN  ANLOBJ$_OBJEOMBADSEV
        .EXTRN  ANLOBJ$_OBJEOMMISSING
        .EXTRN  ANLOBJ$_OBJFADBADAVC
        .EXTRN  ANLOBJ$_OBJFADBADRBC
        .EXTRN  ANLOBJ$_OBJGSDBADALIGN
        .EXTRN  ANLOBJ$_OBJGSDBADSUBTYP
        .EXTRN  ANLOBJ$_OBJHDRRES
        .EXTRN  ANLOBJ$_OBJMHDBADRECSIZ
        .EXTRN  ANLOBJ$_OBJMHDBADSTRLVL
        .EXTRN  ANLOBJ$_OBJMHDMISSING
        .EXTRN  ANLOBJ$_OBJNONTIRCMD
        .EXTRN  ANLOBJ$_OBJNOPSC
        .EXTRN  ANLOBJ$_OBJNULLREC
        .EXTRN  ANLOBJ$_OBJPOSPACE
        .EXTRN  ANLOBJ$_OBJPROMINMAX
        .EXTRN  ANLOBJ$_OBJPSCABSLEN
```

```
                                                  .EXTRN  ANLOBJ$_OBJRECTOOBIG
                                                  .EXTRN  ANLOBJ$_OBJTIRRES
                                                  .EXTRN  ANLOBJ$_OBJUNDEFENV
                                                  .EXTRN  ANLOBJ$_OBJUNDEFLIT
                                                  .EXTRN  ANLOBJ$_OBJUNDEFPSC
                                                  .EXTRN  ANALYZE$_FACILITY
                                                  .EXTRN  ANL$CHECK_FLAGS
                                                  .EXTRN  ANL$CHECK_SYMBOL
                                                  .EXTRN  ANL$FORMAT_ERROR
                                                  .EXTRN  ANL$FORMAT_FLAGS
                                                  .EXTRN  ANL$FORMAT_LINE
                                                  .EXTRN  ANL$FORMAT_PROTECTION
                                                  .EXTRN  ANL$INTERACT, ANL$MAP_FIXUP_SECTION
                                                  .EXTRN  ANL$REPORT_PAGE
                                                  .EXTRN  ANL$REPORT_LINE
                                                  .EXTRN  ANL$GB_INTERACTIVE

                                                  .PSECT  $CODE$,NOWRT,2

                              0FFC 00000          .ENTRY  ANL$IMAGE_FIXUP_INFO, Save R2,R3,R4,R5,R6,- ; 0557
                                                          R7,R8,R9,R10,R11                             ;
              5B      0000G  CF   9E 00002          MOVAB   ANL$GB_INTERACTIVE, R11                      ;
              5A 00000000G  8F   D0 00007          MOVL    #ANLOBJ$_EXEBADFIXUPEND, R10                 ;
              59      0000G  CF   9E 0000E          MOVAB   ANL$REPORT_LINE, R9                          ;
              58      0000G  CF   9E 00013          MOVAB   ANL$FORMAT_LINE, R8                          ;
              5E            18   C2 00018          SUBL2   #24, SP                                      ;
       0000G  CF            00   FB 0001B          CALLS   #0, ANL$REPORT_PAGE                          ; 0574
                 00000000G  8F   DD 00020          PUSHL   #ANLOBJ$_EXEFIXUP                            ; 0575
                            7E   7C 00026          CLRQ    -(SP)                                        ;
              68            03   FB 00028          CALLS   #3, ANL$FORMAT_LINE                          ;
              7E            01   CE 0002B          MNEGL   #1, -(SP)                                    ; 0576
              69            01   FB 0002E          CALLS   #1, ANL$REPORT_LINE                          ;
              7E            01   CE 00031          MNEGL   #1, -(SP)                                    ; 0577
              69            01   FB 00034          CALLS   #1, ANL$REPORT_LINE                          ;
              52        08  AC   D0 00037          MOVL    FIXUP_SIZE, R2                               ; 0582
                            10   12 0003B          BNEQ    1$                                           ;
                 00000000G  8F   DD 0003D          PUSHL   #ANLOBJ$_EXEFIXUPNONE                        ; 0583
                            01   DD 00043          PUSHL   #1                                           ;
                            7E   D4 00045          CLRL    -(SP)                                        ;
              68            03   FB 00047          CALLS   #3, ANL$FORMAT_LINE                          ;
                          02CB   31 0004A          BRW     35$                                          ; 0584
                       0C   AC   DD 0004D 1$:      PUSHL   FIXUP_VBN                                    ; 0590
                            52   DD 00050          PUSHL   R2                                           ;
       0000G  CF            02   FB 00052          CALLS   #2, ANL$MAP_FIXUP_SECTION                    ;
              53            50   D0 00057          MOVL    R0, FP                                       ;
                            13   12 0005A          BNEQ    3$                                           ; 0591
                            52   DD 0005C          PUSHL   R2                                           ; 0592
                       0C   AC   DD 0005E          PUSHL   FIXUP_VBN                                    ;
                 00000000G  8F   DD 00061          PUSHL   #ANLOBJ$_EXEBADFIXUPVBN                      ;
       0000G  CF            03   FB 00067          CALLS   #3, ANL$FORMAT_ERROR                         ;
                          02AD   31 0006C 2$:      BRW     36$                                          ; 0591
52            52            09   78 0006F 3$:      ASHL    #9, R2, R2                                   ; 0598
57            52            53   C1 00073          ADDL3   FP, R2, END_PTR                              ;
                 00000000G  8F   DD 00077          PUSHL   #ANLOBJ$_EXEFIXFIXED                         ; 0604
                            01   DD 0007D          PUSHL   #1                                           ;
                            03   DD 0007F          PUSHL   #3                                           ;
              68            03   FB 00081          CALLS   #3, ANL$FORMAT_LINE                          ;
```

```
            7E              01 CE 00084       MNEGL   #1, -(SP)                       ; 0605
            69              01 FB 00087       CALLS   #1, ANL$REPORT_LINE             ;
                   0000'    CF 9F 0008A       PUSHAB  FLAGS_DEF                       ; 0606
            7E        0A    A3 3C 0008E       MOVZWL  10(FP), -(SP)                   ;
               00000000G    8F DD 00092       PUSHL   #ANLOBJ$_EXEFIXFLAGS            ;
                            02 DD 00098       PUSHL   #2                              ;
     0000G  CF              04 FB 0009A       CALLS   #4, ANL$FORMAT_FLAGS            ;
                   0000'    CF 9F 0009F       PUSHAB  FLAGS_DEF                       ; 0607
            7E        0A    A3 3C 000A3       MOVZWL  10(FP), -(SP)                   ;
     0000G  CF              02 FB 000A7       CALLS   #2, ANL$CHECK_FLAGS             ;
                      1C    A3 DD 000AC       PUSHL   28(FP)                          ; 0608
               00000000G    8F DD 000AF       PUSHL   #ANLOBJ$_EXEFIXCOUNT            ;
                            02 DD 000B5       PUSHL   #2                              ;
                            7E D4 000B7       CLRL    -(SP)                           ;
            68              04 FB 000B9       CALLS   #4, ANL$FORMAT_LINE             ;
                      20    A3 DD 000BC       PUSHL   32(FP)                          ; 0609
               00000000G    8F DD 000BF       PUSHL   #ANLOBJ$_EXEFIXEXTRA            ;
                            02 DD 000C5       PUSHL   #2                              ;
                            7E D4 000C7       CLRL    -(SP)                           ;
            68              04 FB 000C9       CALLS   #4, ANL$FORMAT_LINE             ;
            08              6B E9 000CC       BLBC    ANL$GB_INTERACTIVE, 4$          ; 0613
     0000G  CF              00 FB 000CF       CALLS   #0, ANL$INTERACT                ; 0614
            95              50 E9 000D4       BLBC    R0, 2$                          ;
            7E              01 CE 000D7 4$:   MNEGL   #1, -(SP)                       ; 0620
            69              01 FB 000DA       CALLS   #1, ANL$REPORT_LINE             ;
               00000000G    8F DD 000DD       PUSHL   #ANLOBJ$_EXEFIXLIST             ; 0621
                            01 DD 000E3       PUSHL   #1                              ;
                            03 DD 000E5       PUSHL   #3                              ;
            68              03 FB 000E7       CALLS   #3, ANL$FORMAT_LINE             ;
            7E              01 CE 000EA       MNEGL   #1, -(SP)                       ; 0622
            69              01 FB 000ED       CALLS   #1, ANL$REPORT_LINE             ;
54          53        18    A3 C1 000F0       ADDL3   24(FP), FP, SP                  ; 0624
                      10    A4 95 000F5       TSTB    16(SP)                          ; 0631
                            06 13 000F8       BEQL    5$                              ;
            55        10    A4 9A 000FA       MOVZBL  16(SP), CELL_SIZE               ; 0633
                            03 11 000FE       BRB     6$                              ;
            55              38 D0 00100 5$:   MOVL    #56, CELL_SIZE                  ; 0635
56      1C  A3              01 C3 00103 6$:   SUBL3   #1, 28(FP), R6                  ; 0637
                            52 D4 00108       CLRL    I                               ; 0648
                            3F 11 0010A       BRB     10$                             ;
                            52 D5 0010C 7$:   TSTL    I                               ; 0641
                            11 12 0010E       BNEQ    8$                              ;
                            52 DD 00110       PUSHL   I                               ; 0642
               00000000G    8F DD 00112       PUSHL   #ANLOBJ$_EXEFIXNAME0            ;
                            02 DD 00118       PUSHL   #2                              ;
                            7E D4 0011A       CLRL    -(SP)                           ;
            68              04 FB 0011C       CALLS   #4, ANL$FORMAT_LINE             ;
                            25 11 0011F       BRB     9$                              ;
                      18    A4 9F 00121 8$:   PUSHAB  24(SP)                          ; 0644
                            52 DD 00124       PUSHL   I                               ;
               00000000G    8F DD 00126       PUSHL   #ANLOBJ$_EXEFIXNAME             ;
                            02 DD 0012C       PUSHL   #2                              ;
                            7E D4 0012E       CLRL    -(SP)                           ;
            68              05 FB 00130       CALLS   #5, ANL$FORMAT_LINE             ;
            6E        18    A4 9A 00133       MOVZBL  24(SP), NAME_DSC                ; 0645
        04  AE        19    A4 9E 00137       MOVAB   25(R4), NAME_DSC+4              ;
                            27 DD 0013C       PUSHL   #39                             ; 0646
```

```
                                                 04   AE  9F 0013E         PUSHAB  NAME_DSC                          ;
                                 0000G  CF            02  FB 00141         CALLS   #2, ANL$CHECK_SYMBOL              ;
                                        54            55  C0 00146 9$:     ADDL2   CELL_SIZE, SP                     ; 0648
                                                      52  D6 00149         INCL    I                                 ; 0637
                                        56            52  D1 0014B 10$:    CMPL    I, R6                             ;
                                                      BC  1B 0014E         BLEQU   7$                                ;
                                        0B            6B  E9 00150         BLBC    ANL$GB_INTERACTIVE, 11$           ; 0654
                                 0000G  CF            00  FB 00153         CALLS   #0, AN[$INTERACT                  ; 0655
                                        03            50  E8 00158         BLBS    R0, 11$                           ;
                                                    01BE  31 0015B         BRW     36$                               ;
                                                 0C   A3  D5 0015E 11$:    TSTL    12(FP)                            ; 0662
                                                      03  12 00161         BNEQ    12$                               ;
                                                    009B  31 00163         BRW     20$                               ;
                                        7E            01  CE 00166 12$:    MNEGL   #1, -(SP)                         ; 0664
                                        69            01  FB 00169         CALLS   #1, ANL$REPORT_LINE               ;
                                           00000000G  8F  DD 0016C         PUSHL   #ANLOBJ$_EXEFIXG                  ; 0665
                                                      01  DD 00172         PUSHL   #1                                ;
                                                      03  DD 00174         PUSHL   #3                                ;
                                        68            03  FB 00176         CALLS   #3, ANL$FORMAT_LINE               ;
                          54            53       0C   A3  C1 00179         ADDL3   12(FP), FP, SP                    ; 0666
                                                      64  D5 0017E 13$:    TSTL    (SP)                              ; 0670
                                                      71  13 00180         BEQL    19$                               ;
                                        57            54  D1 00182         CMPL    SP, END_PTR                       ; 0675
                                                      09  1F 00185         BLSSU   14$                               ;
                                                      5A  DD 00187         PUSHL   R10                               ; 0676
                                 0000G  CF            01  FB 00189         CALLS   #1, ANL$FORMAT_ERROR              ;
                                                      63  11 0018E         BRB     19$                               ; 0675
                                        52            84  D0 00190 14$:    MOVL    (SP)+, COUNT                      ; 0682
                                        7E            01  CE 00193         MNEGL   #1, -(SP)                         ; 0684
                                        69            01  FB 00196         CALLS   #1, ANL$REPORT_LINE               ;
                                                      64  DD 00199         PUSHL   (SP)                              ; 0685
                                                      52  DD 0019B         PUSHL   COUNT                             ;
                                           00000000G  8F  DD 0019D         PUSHL   #ANLOBJ$_EXEFIXGIMAGE             ;
                                                      02  DD 001A3         PUSHL   #2                                ;
                                                      02  DD 001A5         PUSHL   #2                                ;
                                        68            05  FB 001A7         CALLS   #5, ANL$FORMAT_LINE               ;
                                        54            04  C0 001AA         ADDL2   #4, SP                            ; 0686
                                        56       FF   A2  9E 001AD         MOVAB   -1(R2), R6                        ; 0690
                                                      55  D4 001B1         CLRL    I                                 ;
                                                      37  11 001B3         BRB     18$                               ;
           7E             00            55            01  7A 001B5 15$:    EMUL    #1, I, #0, -(SP)                  ; 0691
           50             50            8E            04  7B 001BA         EDIV    #4, (SP)+, R0, R0                 ;
                                   08 AE40            84  D0 001BF         MOVL    (SP)+, LONG_ARRAY[R0]             ;
                                        03            50  D1 001C4         CMPL    R0, #3                            ; 0694
                                                      05  13 001C7         BEQL    16$                               ;
                                        56            55  D1 001C9         CMPL    I, R6                             ;
                                                      1C  12 001CC         BNEQ    17$                               ;
                                                 14   AE  DD 001CE 16$:    PUSHL   LONG_ARRAY+12                     ; 0696
                                                 14   AE  DD 001D1         PUSHL   LONG_ARRAY+8                      ;
                                                 14   AE  DD 001D4         PUSHL   LONG_ARRAY+4                      ;
                                                 14   AE  DD 001D7         PUSHL   LONG_ARRAY                        ;
                                                 01   A0  9F 001DA         PUSHAB  1(R0)                             ; 0695
                                           00000000G  8F  DD 001DD         PUSHL   #ANLOBJ$_EXEFIXGLINE              ;
                                                      03  DD 001E3         PUSHL   #3                                ;
                                                      7E  D4 001E5         CLRL    -(SP)                             ;
                                        68            08  FB 001E7         CALLS   #8, ANL$FORMAT_LINE               ;
                                                      55  D6 001EA 17$:    INCL    I                                 ; 0690
```

```
                 56                55 D1 001EC 18$:   CMPL    I, R6                      ;
                                   C4 1B 001EF        BLEQU   15$                        ;
                                   8B 11 001F1        BRB     13$                        ; 0670
                 0B                6B E9 001F3 19$:   BLBC    ANL$GB_INTERACTIVE, 20$    ; 0703
              0000G CF             00 FB 001F6        CALLS   #0, ANL$INTERACT           ; 0704
                 03                50 E8 001FB        BLBS    R0, 20$                    ;
                                 011B 31 001FE        BRW     36$                        ;
                             10    A3 D5 00201 20$:   TSTL    16(FP)                     ; 0711
                                   03 12 00204        BNEQ    21$                        ;
                                 009B 31 00206        BRW     29$                        ;
                 7E                01 CE 00209 21$:   MNEGL   #1, -(SP)                  ; 0716
                 69                01 FB 0020C        CALLS   #1, ANL$REPORT_LINE        ;
                             04    AC DD 0020F        PUSHL   IMAGE_BASE                 ; 0717
                     000000000G    8F DD 00212        PUSHL   #ANLOBJ$_EXEFIXA           ;
                                   01 DD 00218        PUSHL   #1                         ;
                                   03 DD 0021A        PUSHL   #3                         ;
                 68                04 FB 0021C        CALLS   #4, ANL$FORMAT_LINE        ;
        54       53          10    A3 C1 0021F        ADDL3   16(FP), FP, SP             ; 0718
                                   64 D5 00224 22$:   TSTL    (SP)                       ; 0722
                                   71 13 00226        BEQL    28$                        ;
                 57                54 D1 00228        CMPL    SP, END_PTR                ; 0727
                                   09 1F 0022B        BLSSU   23$                        ;
                                   5A DD 0022D        PUSHL   R10                        ; 0728
              0000G CF             01 FB 0022F        CALLS   #1, ANL$FORMAT_ERROR       ;
                                   63 11 00234        BRB     28$                        ; 0727
                 52                84 D0 00236 23$:   MOVL    (SP)+, COUNT               ; 0734
                 7E                01 CE 00239        MNEGL   #1, -(SP)                  ; 0736
                 69                01 FB 0023C        CALLS   #1, ANL$REPORT_LINE        ;
                                   64 DD 0023F        PUSHL   (SP)                       ; 0737
                                   52 DD 00241        PUSHL   COUNT                      ;
                     000000000G    8F DD 00243        PUSHL   #ANLOBJ$_EXEFIXAIMAGE      ;
                                   02 DD 00249        PUSHL   #2                         ;
                                   02 DD 0024B        PUSHL   #2                         ;
                 68                05 FB 0024D        CALLS   #5, ANL$FORMAT_LINE        ;
                 54                04 C0 00250        ADDL2   #4, SP                     ; 0738
                 56          FF    A2 9E 00253        MOVAB   -1(R2), R6                 ; 0742
                                   55 D4 00257        CLRL    I                          ;
                                   37 11 00259        BRB     27$                        ;
7E      00       55                01 7A 0025B 24$:   EMUL    #1, I, #0, -(SP)           ; 0743
50      50       8E                04 7B 00260        EDIV    #4, (SP)+, R0, R0          ;
            08 AE40                84 D0 00265        MOVL    (SP)+, LONG_ARRAY[R0]      ;
                 03                50 D1 0026A        CMPL    R0, #3                     ; 0746
                                   05 13 0026D        BEQL    25$                        ;
                 56                55 D1 0026F        CMPL    I, R6                      ;
                                   1C 12 00272        BNEQ    26$                        ;
                             14    AE DD 00274 25$:   PUSHL   LONG_ARRAY+12              ; 0748
                             14    AE DD 00277        PUSHL   LONG_ARRAY+8               ;
                             14    AE DD 0027A        PUSHL   LONG_ARRAY+4               ;
                             14    AE DD 0027D        PUSHL   LONG_ARRAY                 ;
                             01    A0 9F 00280        PUSHAB  1(R0)                      ; 0747
                     000000000G    8F DD 00283        PUSHL   #ANLOBJ$_EXEFIXALINE       ;
                                   03 DD 00289        PUSHL   #3                         ;
                                   7E D4 0028B        CLRL    -(SP)                      ;
                 68                08 FB 0028D        CALLS   #8, ANL$FORMAT_LINE        ;
                                   55 D6 00290 26$:   INCL    I                          ; 0742
                 56                55 D1 00292 27$:   CMPL    I, R6                      ;
                                   C4 1B 00295        BLEQU   24$                        ;
```

```
                                                     8B  11 00297          BRB      22$                                ; 0722
                                       08            6B  E9 00299  28$:    BLBC     ANL$GB_INTERACTIVE, 29$            ; 0755
                                0000G  CF            00  FB 0029C          CALLS    #0, AN[$INTERACT                   ; 0756
                                       78            50  E9 002A1          BLBC     R0, 36$                            ;
                                                14   A3  D5 002A4  29$:    TSTL     20(FP)                             ; 0763
                                                     6A  13 002A7          BEQL     34$                                ;
                                       7E            01  CE 002A9          MNEGL    #1, -(SP)                          ; 0768
                                       69            01  FB 002AC          CALLS    #1, ANL$REPORT_LINE                ;
                                                04   AC  DD 002AF          PUSHL    IMAGE_BASE                         ; 0769
                                          00000000G  8F  DD 002B2          PUSHL    #ANLOBJ$_EXEFIXP                   ;
                                                     01  DD 002B8          PUSHL    #1                                 ;
                                                     03  DD 002BA          PUSHL    #3                                 ;
                                       68            04  FB 002BC          CALLS    #4, ANL$FORMAT_LINE                ;
                         54            53       14   A3  C1 002BF          ADDL3    20(FP), FP, SP                     ; 0770
                                       52            84  D0 002C4          MOVL     (SP)+, COUNT                       ; 0771
                                       55            01  D0 002C7          MOVL     #1, I                              ; 0781
                                                     37  11 002CA          BRB      32$                                ;
                                       57            54  D1 002CC  30$:    CMPL     SP, END_PTR                        ;
                                                     09  1F 002CF          BLSSU    31$                                ;
                                                     5A  DD 002D1          PUSHL    R10                                ; 0782
                                0000G  CF            01  FB 002D3          CALLS    #1, ANL$FORMAT_ERROR               ;
                                                     2E  11 002D8          BRB      33$                                ; 0781
                                       7E            01  CE 002DA  31$:    MNEGL    #1, -(SP)                          ; 0788
                                       69            01  FB 002DD          CALLS    #1, ANL$REPORT_LINE                ;
                                       7E       04   A4  3C 002E0          MOVZWL   4(SP), -(SP)                       ; 0789
                                                     64  DD 002E4          PUSHL    (SP)                               ;
                                          00000000G  8F  DD 002E6          PUSHL    #ANLOBJ$_EXEFIXPSECT               ;
                                                     02  DD 002EC          PUSHL    #2                                 ;
                                                     02  DD 002EE          PUSHL    #2                                 ;
                                       68            05  FB 002F0          CALLS    #5, ANL$FORMAT_LINE                ;
                                       7E       06   A4  3C 002F3          MOVZWL   6(SP), -(SP)                       ; 0790
                                                     02  DD 002F7          PUSHL    #2                                 ;
                                0000G  CF            02  FB 002F9          CALLS    #2, ANL$FORMAT_PROTECTION          ;
                                       54            08  C0 002FE          ADDL2    #8, SP                             ; 0794
                                                     55  D6 00301          INCL     I                                  ; 0776
                                       52            55  D1 00303  32$:    CMPL     I, COUNT                           ;
                                                     C4  1B 00306          BLEQU    30$                                ;
                                       08            6B  E9 00308  33$:    BLBC     ANL$GB_INTERACTIVE, 34$            ; 0800
                                0000G  CF            00  FB 0030B          CALLS    #0, AN[$INTERACT                   ; 0801
                                       09            50  E9 00310          BLBC     R0, 36$                            ;
                                0000G  CF            00  FB 00313  34$:    CALLS    #0, ANL$MAP_FIXUP_SECTION          ; 0806
                                       50            01  D0 00318  35$:    MOVL     #1, R0                             ; 0808
                                                         04 0031B          RET                                         ;
                                                     50  D4 0031C  36$:    CLRL     R0                                 ; 0810
                                                         04 0031E          RET                                         ;

; Routine Size:  799 bytes,    Routine Base:  $CODE$ + 0000


;  383          0811  1
;  384          0812  0 end eludom
;                                  PSECT SUMMARY
;
;      Name                    Bytes                          Attributes
;
;  $PLIT$                           10  NOVEC,NOWRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $OWN$                             8  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $CODE$                          799  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)




;                            Library Statistics
;
;                                            -------- Symbols --------      Pages       Processing
;      File                                  Total    Loaded  Percent       Mapped      Time
;
;  _$255$DUA28:[SYSLIB]LIB.L32;1             18619        25        0       1000          00:01.7



; Information:  1
; Warnings:     0
; Errors:       0



;                                  COMMAND QUALIFIERS

;      BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:EXEFIXUP/OBJ=OBJ$:EXEFIXUP MSRC$:EXEFIXUP/UPDATE=(ENH$:EXEFIXUP)

; Size:         799 code + 18 data bytes
; Run Time:        00:17.0
; Elapsed Time:    01:03.9
; Lines/CPU Min:    2872
; Lexemes/CPU-Min: 13669
; Memory Used:  290 pages
; Compilation Complete
```

0005 AH-BT13A-SE
VAX/VMS V4.0

DIGITAL EQUIPMENT CORPORATION
CONFIDENTIAL AND PROPRIETARY

SETSHOACL
LIS

OBJEXEREQ
REQ

EXEFIXUP
LIS

ANALYZRMS
MAP

SHOWACL
LIS

EXESTUFF
LIS

ANALYZ

EXEINPUT
LIS

ANALYZOBJ
MAP

EXEDRIVE
LIS

RMSREQ
REQ