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
```

```
23          **FILE**ID**OBJTIR
61
68
69
70
71
72


                 000000    BBBBBBBB            JJ  TTTTTTTTTT    IIIIII    RRRRRRRR
73               000000    BBBBBBBB            JJ  TTTTTTTTTT    IIIIII    RRRRRRRR
               00      00  BB      BB          JJ      TT          II      RR      RR
               00      00  BB      BB          JJ      TT          II      RR      RR
74             00      00  BB      BB          JJ      TT          II      RR      RR
               00      00  BB      BB          JJ      TT          II      RR      RR
75             00      00  BBBBBBBB            JJ      TT          II      RRRRRRRR
80             00      00  BBBBBBBB            JJ      TT          II      RRRRRRRR
               00      00  BB      BB  JJ      JJ      TT          II      RR  RR
81             00      00  BB      BB  JJ      JJ      TT          II      RR  RR
               00      00  BB      BB  JJ      JJ      TT          II      RR    RR        ....
85             00      00  BB      BB  JJ      JJ      TT          II      RR    RR        ....
                 000000    BBBBBBBB      JJJJJJ        TT        IIIIII    RR      RR      ....
                 000000    BBBBBBBB      JJJJJJ        TT        IIIIII    RR      RR      ....


               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
```

```
;  1          0001  0 %title 'OBJTIR - Analyze TIR/DBG/TBT Object Records'
;  2          0002  0        module objtir   (
;  3          0003  1                        ident='V04-000') = begin
;  4          0004  1
;  5          0005  1 !
;  6          0006  1 !*****************************************************************************
;  7          0007  1 !*                                                                           *
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; 25          0025  1 !*                                                                           *
; 26          0026  1 !*                                                                           *
; 27          0027  1 !*****************************************************************************
; 28          0028  1 !
; 29          0029  1
; 30          0030  1 !++
; 31          0031  1 ! Facility:     VAX/VMS Analyze Facility, Analyze TIR/DBG/TBT Object Records
; 32          0032  1 !
; 33          0033  1 ! Abstract:     This module is responsible for analyzing the TIR and
; 34          0034  1 !               associated object records:
; 35          0035  1 !                       DBG     Debugger Information Records
; 36          0036  1 !                       TBT     Traceback Information Records
; 37          0037  1 !                       TIR     Text Information/Relocation Records
; 38          0038  1 !
; 39          0039  1 !
; 40          0040  1 ! Environment:
;10 41          0041  1 !
;15 42          0042  1 ! Author: Paul C. Anagnostopoulos, Creation Date: 16 January 1980
; 43          0043  1 !
;16 44          0044  1 ! Modified By:
; 45          0045  1 !
; 46          0046  1 !       V03-002 MCN0158         Maria del C. Nasr       22-Mar-1984
;20 47          0047  1 !               Add OBJ$C_SYMSIZ to call to ANL$CHECK_SYMBOL.
; 48          0048  1 !
; 49          0049  1 !       V03-001 PCA1011         Paul C. Anagnostopoulos  1-Apr-1983
; 50          0050  1 !               Change the message prefix to ANLOBJ$_ to ensure that
; 51          0051  1 !               message symbols are unique across all ANALYZEs.  This
; 52          0052  1 !               is necessitated by the new merged message files.
; 53          0053  1 !--
```

```
;    55          0054  1 %sbttl 'Module Declarations'
;    56          0055  1 !
;    57          0056  1 ! Libraries and Requires:
;    58          0057  1 !
;    59          0058  1
;    60          0059  1 library 'starlet';
;    61          0060  1 require 'objexereq';
;    62          0496  1
;    63          0497  1 !
;    64          0498  1 ! Table of Contents:
;    65          0499  1 !
;    66          0500  1
;    67          0501  1 forward routine
;    68          0502  1         anl$object_tir: novalue,
;    69          0503  1         anl$object_tir_clean: novalue;
;    70          0504  1
;    71          0505  1 !
;    72          0506  1 ! Macro Definitions:
;    73          0507  1 !
;    74          0508  1 ! The following macro is used to initialize one entry in the TIR command table.
;    75          0509  1
;    76        M 0510  1 macro cmd_def(command,operand,stack) =
;    77        M 0511  1         %if %identical(command,reserved) %then
;    78        M 0512  1                 rep (stack-operand+1)*8 of byte (0)
;    79        M 0513  1         %else
;    80        M 0514  1                 uplit byte(%ascic %string(command)),
;    81        M 0515  1                 byte (%exactstring(3,%x'00',%string(operand))),
;    82        M 0516  1                 byte (stack)
;    83        M 0517  1         %fi
;    84          0518  1 %;
;    85          0519  1
;    86          0520  1 !
;    87          0521  1 ! External References:
;    88          0522  1 !
;    89          0523  1
;    90          0524  1 external routine
;    91          0525  1         anl$check_symbol,
;    92          0526  1         anl$format_error,
;    93          0527  1         anl$format_hex,
;    94          0528  1         anl$format_line,
;    95          0529  1         anl$object_argument_dsc,
;    96          0530  1         anl$object_env_ref,
;    97          0531  1         anl$object_psect_ref,
;    98          0532  1         anl$object_record_line,
;    99          0533  1         anl$report_line;
;   100          0534  1
;   101          0535  1 !
;   102          0536  1 ! Own Variables:
;   103          0537  1 !
;   104          0538  1 ! The following variable keeps track of the stack depth as we analyze TIR
;   105          0539  1 ! commands.  It is cleared after each object module.
;   106          0540  1
;   107          0541  1 own
;   108          0542  1         stack_depth: long initial (0);
;   109          0543  1
;   110          0544  1 ! The following bit vector is needed to keep track of which literals are
;   111          0545  1 ! defined with the OPR_DFLIT command.
```

```
;  112          0546  1
;  113          0547  1 own
;  114          0548  1         literal_def_bits: bitvector[256] initial(rep 256/8 of byte (0));
```

```
;  116          0549  1 %sbttl 'ANL$OBJECT_TIR - Analyze TIR & Associated Object Records'
;  117          0550  1 !++
;  118          0551  1 ! Functional Description:
;  119          0552  1 !       This routine is responsible for analyzing the TIR, DBC, and TBT
;  120          0553  1 !       object records.
;  121          0554  1 !
;  122          0555  1 ! Formal Parameters:
;  123          0556  1 !       record_number   The number of this object record.
;  124          0557  1 !       the_record      Address of descriptor of the object record.
;  125          0558  1 !
;  126          0559  1 ! Implicit Inputs:
;  127          0560  1 !       global data
;  128          0561  1 !
;  129          0562  1 ! Implicit Outputs:
;  130          0563  1 !       global data
;  131          0564  1 !
;  132          0565  1 ! Returned Value:
;  133          0566  1 !       none
;  134          0567  1 !
;  135          0568  1 ! Side Effects:
;  136          0569  1 !
;  137          0570  1 !--
;  138          0571  1
;  139          0572  1
;  140          0573  2 global routine anl$object_tir(record_number,the_record): novalue = begin
;  141          0574  2
;  142          0575  2 bind
;  143          0576  2         record_dsc = .the_record: descriptor;
```

```
;  145          0577  2 ! The following table defines all of the commands valid in these records
;  146          0578  2 ! (except the store immediate command).  Each entry includes the symbolic
;  147          0579  2 ; name of the command, the operand type (see below), and the number of
;  148          0580  2 ; longwords pushed on or popped from the stack.
;  149          0581  2
;  150          0582  2 field cmd_table_fields = set
;  151          0583  2         command_name    = [0,0,32,0],
;  152          0584  2         operand_type    = [4,0,24,0],
;  153          0585  2         stack_affect    = [7,0, 8,1]
;  154          0586  2 tes;
;  155          0587  2
;  156          0588  2 own
;  157          0589  2         cmd_table: blockvector[128,8,byte] field(cmd_table_fields)
;  158          0590  2                 initial (
;  159          0591  2
;  160          0592  2 !                       COMMAND NAME    OPERAND TYPE    STACK AFFECT
;  161          0593  2 !                       ------------    ------------    ------------
;  162          0594  2
;  163          0595  2                 cmd_def(STA_GBL,        SYM,            +1),
;  164          0596  2                 cmd_def(STA_SB,         B,              +1),
;  165          0597  2                 cmd_def(STA_SW,         W,              +1),
;  166          0598  2                 cmd_def(STA_LW,         L,              +1),
;  167          0599  2                 cmd_def(STA_PB,         BPB,            +1),
;  168          0600  2                 cmd_def(STA_PW,         BPW,            +1),
;  169          0601  2                 cmd_def(STA_PL,         BPL,            +1),
;  170          0602  2                 cmd_def(STA_UB,         UB,             +1),
;  171          0603  2                 cmd_def(STA_UW,         UW,             +1),
;  172          0604  2                 cmd_def(STA_BFI,        NO,             +1),
;  173          0605  2                 cmd_def(STA_WFI,        NO,             +1),
;  174          0606  2                 cmd_def(STA_LFI,        NO,             +1),
;  175          0607  2                 cmd_def(STA_EPM,        SYM,            +1),
;  176          0608  2                 cmd_def(STA_CKARG,      ARG,            +1),
;  177          0609  2                 cmd_def(STA_WPB,        WPB,            +1),
;  178          0610  2                 cmd_def(STA_WPW,        WPW,            +1),
;  179          0611  2                 cmd_def(STA_WPL,        WPL,            +1),
;  180          0612  2                 cmd_def(STA_LSY,        ENS,            +1),
;  181          0613  2                 cmd_def(STA_LIT,        LTX,            +1),
;  182          0614  2                 cmd_def(reserved, 19,19),
;  183          0615  2
;  184          0616  2                 cmd_def(STO_SB,         NO,             -1),
;  185          0617  2                 cmd_def(STO_SW,         NO,             -1),
;  186          0618  2                 cmd_def(STO_LW,         NO,             -1),
;  187          0619  2                 cmd_def(STO_BD,         NO,             -1),
;  188          0620  2                 cmd_def(STO_WD,         NO,             -1),
;  189          0621  2                 cmd_def(STO_LD,         NO,             -1),
;  190          0622  2                 cmd_def(STO_LI,         NO,             -1),
;  191          0623  2                 cmd_def(STO_PIDR,       NO,             -1),
;  192          0624  2                 cmd_def(STO_PICR,       NO,             -1),
;  193          0625  2                 cmd_def(STO_RSB,        NO,             -2),
;  194          0626  2                 cmd_def(STO_RSW,        NO,             -2),
;  195          0627  2                 cmd_def(STO_RL,         NO,             -2),
;  196          0628  2                 cmd_def(STO_VPS,        VLD,            -1),
;  197          0629  2                 cmd_def(STO_USB,        NO,             -1),
;  198          0630  2                 cmd_def(STO_USW,        NO,             -1),
;  199          0631  2                 cmd_def(STO_RUB,        NO,             -2),
;  200          0632  2                 cmd_def(STO_RUW,        NO,             -2),
;  201          0633  2                 cmd_def(STO_B,          NO,             -1),
```

```
;  202     0634  2                    cmd_def(STO_W,          NO,          -1),
;  203     0635  2                    cmd_def(STO_RB,         NO,          -2),
;  204     0636  2                    cmd_def(STO_RW,         NO,          -2),
;  205     0637  2                    cmd_def(STO_RIVB,       TXT,         -1),
;  206     0638  2                    cmd_def(STO_PIRR,       NO,          -2),
;  207     0639  2                    cmd_def(reserved, 43,49),
;  208     0640  2
;  209     0641  2                    cmd_def(OPR_NOP,        NO,           0),
;  210     0642  2                    cmd_def(OPR_ADD,        NO,          -1),
;  211     0643  2                    cmd_def(OPR_SUB,        NO,          -1),
;  212     0644  2                    cmd_def(OPR_MUL,        NO,          -1),
;  213     0645  2                    cmd_def(OPR_DIV,        NO,          -1),
;  214     0646  2                    cmd_def(OPR_AND,        NO,          -1),
;  215     0647  2                    cmd_def(OPR_IOR,        NO,          -1),
;  216     0648  2                    cmd_def(OPR_EOR,        NO,          -1),
;  217     0649  2                    cmd_def(OPR_NEG,        NO,           0),
;  218     0650  2                    cmd_def(OPR_COM,        NO,           0),
;  219     0651  2                    cmd_def(OPR_INSV,       VLD,         -1),
;  220     0652  2                    cmd_def(OPR_ASH,        NO,          -1),
;  221     0653  2                    cmd_def(OPR_USH,        NO,          -1),
;  222     0654  2                    cmd_def(OPR_ROT,        NO,          -1),
;  223     0655  2                    cmd_def(OPR_SEL,        NO,          -2),
;  224     0656  2                    cmd_def(OPR_REDEF,      SYM,          0),
;  225     0657  2                    cmd_def(OPR_DFLIT,      LTX,         -1),
;  226     0658  2                    cmd_def(reserved, 67,79),
;  227     0659  2
;  228     0660  2                    cmd_def(CTL_SETRB,      NO,          -1),
;  229     0661  2                    cmd_def(CTL_AUGRB,      L,            0),
;  230     0662  2                    cmd_def(CTL_DFLOC,      NO,          -1),
;  231     0663  2                    cmd_def(CTL_STLOC,      NO,          -1),
;  232     0664  2                    cmd_def(CTL_STKDL,      NO,           0),
;  233     0665  2                    cmd_def(reserved, 85,127)
;  234     0666  2
;  235     0667  2                    );
;  236     0668  2
;  237     0669  2 ! The following list defines the operand type codes used in the table above.
;  238     0670  2 ! Each one specifies a different combination of operands that can follow
;  239     0671  2 ! a command operation code.
;  240     0672  2 !
;  241     0673  2 !       ARG     symbol, byte argument index, argument descriptor
;  242     0674  2 !       B       signed byte
;  243     0675  2 !       BP      byte psect number
;  244     0676  2 !       BPB     byte psect number, signed byte
;  245     0677  2 !       BPL     byte psect number, signed longword
;  246     0678  2 !       BPW     byte psect number, signed word
;  247     0679  2 !       ENS     word environment number, symbol
;  248     0680  2 !       L       signed longword
;  249     0681  2 !       LTX     byte literal index
;  250     0682  2 !       SYM     symbol
;  251     0683  2 !       TXT     ASCIC text string
;  252     0684  2 !       UB      unsigned byte
;  253     0685  2 !       UW      unsigned word
;  254     0686  2 !       VLD     byte position, byte size
;  255     0687  2 !       W       signed word
;  256     0688  2 !       WP      word psect number
;  257     0689  2 !       WPB     word psect number, signed byte
;  258     0690  2 !       WPL     word psect number, signed longword
```

```
;  259          0691  2 !       WPW     word psect number, signed word
```

```
;  261          0692  2 local
;  262          0693  2         scanp: ref block[,byte],
;  263          0694  2         record_type: byte,
;  264          0695  2         command_number: long,
;  265          0696  2         fit_ok: byte,
;  266          0697  2         command: signed byte,
;  267          0698  2         work_dsc: descriptor,
;  268          0699  2         literal_index: byte;
;  269          0700  2
;  270          0701  2
;  271          0702  2 ! We begin by printing a major line for the record.
;  272          0703  2
;  273          0704  2 scanp = .record_dsc[ptr];
46 ;  274          0705  2 record_type = .scanp[obj$b_rectyp];
47 ;  275          0706  3 anl$object_record_line((selectoneu .record_type of set
;  276          0707  3                             [obj$c_tir]:    anlobj$_objtirrec;
;  277          0708  3                             [obj$c_dbg]:    anlobj$_objdbgrec;
;  278          0709  3                             [obj$c_tbt]:    anlobj$_objtbtrec;
;  279          0710  2                             tes),
;  280          0711  2                             .record_number,record_dsc);
48 ;  281          0712  2 increment (scanp);
;  282          0713  2
53 ;  283          0714  2 ! Now we go into a loop processing the commands in the record.
;  284          0715  2 ! COMMAND_NUMBER will count them as we go.
;  285          0716  2 ! SCANP will advance along the various commands and fields of the record.
;  286          0717  2 ! FIT_OK will remain true unless a field spills off the end of the record.
;  287          0718  2
;  288          0719  2 command_number = 0;
;  289          0720  2 fit_ok = true;
;  290          0721  3 while (.scanp lssa (.record_dsc[ptr]+.record_dsc[len])) and .fit_ok do (
;  291          0722  3
54 ;  292          0723  3         ! Count the command and prepare to print it nicely.
55 ;  293          0724  3
;  294          0725  3         increment (command_number);
;  295          0726  3         anl$report_line(0);
;  296          0727  3
;  297          0728  3         ! We split up depending upon whether it is a store immediate
;  298          0729  3         ! command or some other one.
56 ;  299          0730  3
61 ;  300          0731  3         command = .scanp[0,0,8,1];
;  301          0732  3         increment (scanp);
;  302          0733  4         if .command lss 0 then (
;  303          0734  4
;  304          0735  4                 ! It's a store immediate.  Print a line for the command,
;  305          0736  4                 ! and then dump the text.
;  306          0737  4
;  307          0738  4                 anl$format_line(1,1,anlobj$_objtirstoim,.command_number,-.command);
;  308          0739  4                 build_descriptor(work_dsc,-.command,.scanp);
;  309          0740  4                 anl$format_hex(2,work_dsc);
;  310          0741  4                 scanp = .scanp + -.command;
;  311          0742  4
;  312          0743  4         ) else (
;  313          0744  4
;  314          0745  4                 ! It's some other command.  If it's invalid, just tell the
;  315          0746  4                 ! user.  We also have to ignore the rest of the
;  316          0747  4                 ! record since God only knows what it looks like.
;  317          0748  4
```

```
;  318          0749  5                  if .cmd_table[.command,command_name] eqlu 0 then (
;  319          0750  5                          anl$format_error(anlobj$_objtirres,.command);
;  320          0751  5                          build_descriptor(work_dsc,.record_dsc[len]-(.scanp-.record_dsc[ptr]),.record_dsc[ptr
;  321          0752  5                          anl$format_hex(2,work_dsc);
;  322          0753  5                          return;
62 ;  323          0754  5                  ) else (
63 ;  324          0755  5
;  325          0756  5                          ! It's a good command.  Adjust the stack and then
;  326          0757  5                          ! print a line for it.  We use a different line if
;  327          0758  5                          ! it changes the stack depth.
;  328          0759  5
;  329          0760  5                          stack_depth = .stack_depth + .cmd_table[.command,stack_affect];
64 ;  330          0761  5                          anl$format_line(2,1,
;  331          0762  4                                  (if .cmd_table[.command,stack_affect] eqlu 0 then anlobj$_objtircmd
69 ;  332          0763  5                                                                               else anlobj$_objtircmdstk),
;  333          0764  5                                  .command_number,.cmd_table[.command,command_name],
;  334          0765  5                                  .command,.stack_depth);
;  335          0766  4                  );
```

```
;  337     0767  4                    ! Now we select on the operand type for this command.  This
80 ;  338     0768  4                    ! will tell us how to print the operands, and also let us
;  339     0769  4                    ! adjust the scan pointer to the next command.  NOTE that we
;  340     0770  4                    ! use selectu so that operand types can make use of more
;  341     0771  4                    ! than one case.
;  342     0772  4
81 ;  343     0773  4                    selectu .cmd_table[.command,operand_type] of set
;  344     0774  4
82 ;  345     0775  4
87 ;  346     0776  4                    ['BP',
;  347     0777  4                     'BPB',
;  348     0778  4                     'BPW',
;  349     0779  4                     'BPL']:        ! The command takes a byte psect number,
;  350     0780  4                                    ! perhaps followed by something else.  Make
;  351     0781  4                                    ! sure to record the psect reference.
;  352     0782  4
;  353     0783  5                                    (ensure_field_fit(0,0,8,0,record_dsc);
;  354     0784  6                                    if .fit_ok then (
88 ;  355     0785  6                                            anl$format_line(0,2,anlobj$_objpsect,.scanp[0,0,8,0]);
89 ;  356     0786  6                                            anl$object_psect_ref(.scanp[0,0,8,0]);
;  357     0787  6                                            increment (scanp);
;  358     0788  4                                    ););
;  359     0789  4
;  360     0790  4
90 ;  361     0791  4                    ['WP',
95 ;  362     0792  4                     'WPB',
;  363     0793  4                     'WPW',
;  364     0794  4                     'WPL']:        ! The command takes a word psect number,
;  365     0795  4                                    ! perhaps followed by something else.
96 ;  366     0796  4
;  367     0797  5                                    (ensure_field_fit(0,0,16,0,record_dsc);
00 ;  368     0798  6                                    if .fit_ok then (
;  369     0799  6                                            anl$format_line(0,2,anlobj$_objpsect,.scanp[0,0,16,0]);
;  370     0800  6                                            anl$object_psect_ref(.scanp[0,0,16,0]);
;  371     0801  6                                            scanp = .scanp + 2;
;  372     0802  4                                    ););
;  373     0803  4
;  374     0804  4
;  375     0805  4                    ['ENS']:       ! The command takes a word environment number,
;  376     0806  4                                    ! perhaps followed by something else.
;  377     0807  4
;  378     0808  5                                    (ensure_field_fit(0,0,16,0,record_dsc);
;  379     0809  6                                    if .fit_ok then (
;  380     0810  6                                            anl$format_line(0,2,anlobj$_objenv,.scanp[0,0,16,0]);
;  381     0811  6                                            anl$object_env_ref(.scanp[0,0,16,0]);
;  382     0812  6                                            scanp = .scanp + 2;
;  383     0813  4                                    ););
;  384     0814  4
;  385     0815  4                    ['B',
;  386     0816  4                     'BPB',
;  387     0817  4                     'WPB']:        ! The command takes a signed byte operand,
;  388     0818  4                                    ! perhaps preceeded by something else.
;  389     0819  4
;  390     0820  5                                    (ensure_field_fit(0,0,8,1,record_dsc);
;  391     0821  6                                    if .fit_ok then (
;  392     0822  6                                            anl$format_line(0,2,anlobj$_objvalue,.scanp[0,0,8,1]);
;  393     0823  6                                            increment (scanp);
```

```
;  394     0824  4                                    ););
;  395     0825  4
;  396     0826  4
;  397     0827  4                ['UB']:             ! The command takes an unsigned byte operand.
;  398     0828  4
;  399     0829  5                                    (ensure_field_fit(0,0,8,0,record_dsc);
;  400     0830  6                                    if .fit_ok then (
;  401     0831  6                                            anl$format_line(0,2,anlobj$_objuvalue,.scanp[0,0,8,0]);
;  402     0832  6                                            increment (scanp);
;  403     0833  4                                    ););
;  404     0834  4
;  405     0835  4
;  406     0836  4                ['LITX']:           ! The command takes a byte literal index.  We
;  407     0837  4                                    ! need to save it for later checking.
;  408     0838  4
;  409     0839  5                                    (ensure_field_fit(0,0,8,0,record_dsc);
;  410     0840  6                                    if .fit_ok then (
;  411     0841  6                                            anl$format_line(0,2,anlobj$_objlitindex,.scanp[0,0,8,0]);
;  412     0842  6                                            literal_index = .scanp[0,0,8,0];
;  413     0843  6                                            increment (scanp);
;  414     0844  4                                    ););
;  415     0845  4
;  416     0846  4
;  417     0847  4                ['W',
;  418     0848  4                 'BPW',
;  419     0849  4                 'WPW']:            ! The command takes a signed word operand,
;  420     0850  4                                    ! perhaps preceeded by something else.
;  421     0851  4
;  422     0852  5                                    (ensure_field_fit(0,0,16,1,record_dsc);
;  423     0853  6                                    if .fit_ok then (
;  424     0854  6                                            anl$format_line(0,2,anlobj$_objvalue,.scanp[0,0,16,1]);
;  425     0855  6                                            scanp = .scanp + 2;
;  426     0856  4                                    ););
;  427     0857  4
;  428     0858  4
;  429     0859  4                ['UW']:             ! The command takes an unsigned word operand.
;  430     0860  4
;  431     0861  4
;  432     0862  5                                    (ensure_field_fit(0,0,16,0,record_dsc);
;  433     0863  6                                    if .fit_ok then (
;  434     0864  6                                            anl$format_line(0,2,anlobj$_objuvalue,.scanp[0,0,16,0]);
;  435     0865  6                                            scanp = .scanp + 2;
;  436     0866  4                                    ););
;  437     0867  4
;  438     0868  4
;  439     0869  4                ['L',
;  440     0870  4                 'BPL',
;  441     0871  4                 'WPL']:            ! The command takes a signed longword operand,
;  442     0872  4                                    ! perhaps preceeded by somthing else.
;  443     0873  4
;  444     0874  4
;  445     0875  5                                    (ensure_field_fit(0,0,32,1,record_dsc);
;  446     0876  6                                    if .fit_ok then (
;  447     0877  6                                            anl$format_line(0,2,anlobj$_objvalue,.scanp[0,0,32,1]);
;  448     0878  6                                            scanp = .scanp + 4;
;  449     0879  4                                    ););
;  450     0880  4
```

```
44      ;  451     0881  4
        ;  452     0882  4                    ['SYM',
        ;  453     0883  4                     'ARG',
        ;  454     0884  4                     'ENS']:         ! The command takes a symbol name, perhaps
        ;  455     0885  4                                     ! preceeded or followed by something else.
        ;  456     0886  4
        ;  457     0887  5                                     (ensure_ascic_fit(0,0,8,0,record_dsc,work_dsc);
        ;  458     0888  6                                     if .fit_ok then (
        ;  459     0889  6                                             anl$format_line(0,2,anlobj$_objsymbol,.work_dsc[len],.work_dsc[ptr])
        ;  460     0890  6                                             anl$check_symbol(work_dsc, obj$c_symsiz);
        ;  461     0891  6                                             scanp = .scanp + 1 + .work_dsc[len];
        ;  462     0892  4                                     ););
        ;  463     0893  4
        ;  464     0894  4
        ;  465     0895  4                    ['ARG']:         ! The command takes an argument descriptor.
        ;  466     0896  4                                     ! This consists of a symbol, which was analyzed
        ;  467     0897  4                                     ! above, an argument index, and an actual
        ;  468     0898  4                                     ! argument descriptor.
        ;  469     0899  4
        ;  470     0900  5                                     (ensure_field_fit(0,0,8,0,record_dsc);
        ;  471     0901  6                                     if .fit_ok then (
        ;  472     0902  6                                             anl$format_line(0,2,anlobj$_objtirargindex,.scanp[0,0,8,0]);
        ;  473     0903  6                                             increment (scanp);
        ;  474     0904  6                                             fit_ok = anl$object_argument_dsc(3,scanp,record_dsc);
        ;  475     0905  4                                     ););
        ;  476     0906  4
        ;  477     0907  4
        ;  478     0908  4                    ['TXT']:         ! The command takes a counted string with text.
        ;  479     0909  4
        ;  480     0910  5                                     (ensure_ascic_fit(0,0,8,0,record_dsc,work_dsc);
        ;  481     0911  6                                     if .fit_ok then (
        ;  482     0912  6                                             anl$format_hex(2,work_dsc);
        ;  483     0913  6                                             scanp = .scanp + 1 + .work_dsc[len];
        ;  484     0914  4                                     ););
        ;  485     0915  4
        ;  486     0916  4
        ;  487     0917  4                    ['VLD']:         ! The command takes a vield definition,
        ;  488     0918  4                                     ! consisting of a position and a size.
        ;  489     0919  4
        ;  490     0920  5                                     (ensure_field_fit(0,0,16,0,record_dsc);
        ;  491     0921  6                                     if .fit_ok then (
        ;  492     0922  6                                             anl$format_line(0,2,anlobj$_objtirvield,.scanp[0,0,8,0],.scanp[1,0,8
        ;  493     0923  6                                             if .scanp[0,0,8,0]+.scanp[1,0,8,0] gtru
        ;  494     0924  6                                                minu(31,(.scanp[0,0,8,0]+8)/8*8) then
        ;  495     0925  6                                                     anl$format_error(anlobj$_objbadvield);
        ;  496     0926  6                                             scanp = .scanp + 2;
        ;  497     0927  4                                     ););
        ;  498     0928  4
        ;  499     0929  4                    tes;
        ;  500     0930  4
        ;  501     0931  4                    ! Check the stack to ensure that we haven't popped too much.
        ;  502     0932  4
        ;  503     0933  4                    if .stack_depth lss 0 then
        ;  504     0934  4                            anl$format_error(anlobj$_objbadpop);
```

```
;  506          0935  4                ! Now we have to perform some checks that are specific to
;  507          0936  4                ! various commands.  Just select on the command and make
;  508          0937  4                ! the check.
;  509          0938  4
;  510          0939  4                selectoneu .command of set
;  511          0940  4                [tir$c_sta_lit]:
;  512          0941  4
;  513          0942  4                        ! We have a stack literal value command.  Make sure
;  514          0943  4                        ! the literal has been defined.
;  515          0944  4
;  516          0945  4                        if not .literal_def_bits[.literal_index] then
;  517          0946  4                                anl$format_error(anlobj$_objundeflit);
;  518          0947  4
;  519          0948  4                [tir$c_opr_dflit]:
;  520          0949  4
;  521          0950  4                        ! We have a define literal command.  Set the defined
;  522          0951  4                        ! bit for the literal.
;  523          0952  4
;  524          0953  4                        literal_def_bits[.literal_index] = true;
;  525          0954  4
;  526          0955  4                [tir$c_ctl_dfloc,
;  527          0956  4                 tir$c_ctl_stloc,
;  528          0957  4                 tir$c_ctl_stkdl]:
;  529          0958  4
;  530          0959  4                        ! We have a command that is not valid in TIR records,
;  531          0960  4                        ! only in DBG and TBT records.
;  532          0961  4
;  533          0962  4                        if .record_type eqlu obj$c_tir then
;  534          0963  4                                anl$format_error(anlobj$_objnontircmd);
;  535          0964  4                tes;
;  536          0965  4
;  537          0966  4        ! Analysis of command is complete.
;  538          0967  4
;  539          0968  3        );
;  540          0969  3
;  541          0970  3 ! Go on to next command.
;  542          0971  3
;  543          0972  2 );
;  544          0973  2
;  545          0974  2 return;
;  546          0975  2
;  547          0976  1 end;


                                                                .TITLE  OBJTIR OBJTIR - Analyze TIR/DBG/TBT Object Reco
;                                                                       rds
                                                                .IDENT  \V04-000\

                                                                .PSECT  $PLIT$,NOWRT,NOEXE,2

                    4C  42  47  5F  41  54  53  07  00000 P.AAA:   .ASCII  <7>\STA_GBL\                                    ;
                        42  53  5F  41  54  53  06  00008 P.AAB:   .ASCII  <6>\STA_SB\                                     ;
                        57  53  5F  31  54  53  06  0000F P.AAC:   .ASCII  <6>\STA_SW\                                     ;
                        57  4C  5F  41  54  53  06  00016 P.AAD:   .ASCII  <6>\STA_LW\                                     ;
                        42  50  5F  41  54  53  06  0001D P.AAE:   .ASCII  <6>\STA_PB\                                     ;
                        57  50  5F  41  54  53  06  00024 P.AAF:   .ASCII  <6>\STA_PW\                                     ;
                        4C  50  5F  41  54  53  06  0002B P.AAG:   .ASCII  <6>\STA_PL\                                     ;
```

```
                    42  55  5F  41  54  53  06  00032 P.AAH:   .ASCII   <6>\STA_UB\
                    57  55  5F  41  54  53  06  00039 P.AAI:   .ASCII   <6>\STA_UW\
                49  46  42  5F  41  54  53  07  00040 P.AAJ:   .ASCII   <7>\STA_BFI\
                49  46  57  5F  41  54  53  07  00048 P.AAK:   .ASCII   <7>\STA_WFI\
                49  46  4C  5F  41  54  53  07  00050 P.AAL:   .ASCII   <7>\STA_LFI\
                4D  50  45  5F  41  54  53  07  00058 P.AAM:   .ASCII   <7>\STA_EPM\
            47  52  41  4B  43  5F  41  54  53  09  00060 P.AAN:   .ASCII   <9>\STA_CKARG\
                42  50  57  5F  41  54  53  07  0006A P.AAO:   .ASCII   <7>\STA_WPB\
                57  50  57  5F  41  54  53  07  00072 P.AAP:   .ASCII   <7>\STA_WPW\
                4C  50  57  5F  41  54  53  07  0007A P.AAQ:   .ASCII   <7>\STA_WPL\
                59  53  4C  5F  41  54  53  07  00082 P.AAR:   .ASCII   <7>\STA_LSY\
                54  49  4C  5F  41  54  53  07  0008A P.AAS:   .ASCII   <7>\STA_LIT\
                    42  53  5F  4F  54  53  06  00092 P.AAT:   .ASCII   <6>\STO_SB\
                    57  53  5F  4F  54  53  06  00099 P.AAU:   .ASCII   <6>\STO_SW\
                    57  4C  5F  4F  54  53  06  000A0 P.AAV:   .ASCII   <6>\STO_LW\
                    44  42  5F  4F  54  53  06  000A7 P.AAW:   .ASCII   <6>\STO_BD\
                    44  57  5F  4F  54  53  06  000AE P.AAX:   .ASCII   <6>\STO_WD\
                    44  4C  5F  4F  54  53  06  000B5 P.AAY:   .ASCII   <6>\STO_LD\
                    49  4C  5F  4F  54  53  06  000BC P.AAZ:   .ASCII   <6>\STO_LI\
            52  44  49  50  5F  4F  54  53  08  000C3 P.ABA:   .ASCII   <8>\STO_PIDR\
            52  43  49  50  5F  4F  54  53  08  000CC P.ABB:   .ASCII   <8>\STO_PICR\
                42  53  52  5F  4F  54  53  07  000D5 P.ABC:   .ASCII   <7>\STO_RSB\
                57  53  52  5F  4F  54  53  07  000DD P.ABD:   .ASCII   <7>\STO_RSW\
                    4C  52  5F  4F  54  53  06  000E5 P.ABE:   .ASCII   <6>\STO_RL\
                53  50  56  5F  4F  54  53  07  000EC P.ABF:   .ASCII   <7>\STO_VPS\
                42  53  55  5F  4F  54  53  07  000F4 P.ABG:   .ASCII   <7>\STO_USB\
                57  53  55  5F  4F  54  53  07  000FC P.ABH:   .ASCII   <7>\STO_USW\
                42  55  52  5F  4F  54  53  07  00104 P.ABI:   .ASCII   <7>\STO_RUB\
                57  55  52  5F  4F  54  53  07  0010C P.ABJ:   .ASCII   <7>\STO_RUW\
                        42  5F  4F  54  53  05  00114 P.ABK:   .ASCII   <5>\STO_B\
                        57  5F  4F  54  53  05  0011A P.ABL:   .ASCII   <5>\STO_W\
                    42  52  5F  4F  54  53  06  00120 P.ABM:   .ASCII   <6>\STO_RB\
                    57  52  5F  4F  54  53  06  00127 P.ABN:   .ASCII   <6>\STO_RW\
        42  56  49  52  5F  4F  54  53  08  0012E P.ABO:   .ASCII   <8>\STO_RIVB\
        52  52  49  50  5F  4F  54  53  08  00137 P.ABP:   .ASCII   <8>\STO_PIRR\
            50  4F  4E  5F  52  50  4F  07  00140 P.ABQ:   .ASCII   <7>\OPR_NOP\
            44  44  41  5F  52  50  4F  07  00148 P.ABR:   .ASCII   <7>\OPR_ADD\
            42  55  53  5F  52  50  4F  07  00150 P.ABS:   .ASCII   <7>\OPR_SUB\
            4C  55  4D  5F  52  50  4F  07  00158 P.ABT:   .ASCII   <7>\OPR_MUL\
            56  49  44  5F  52  50  4F  07  00160 P.ABU:   .ASCII   <7>\OPR_DIV\
            44  4E  41  5F  52  50  4F  07  00168 P.ABV:   .ASCII   <7>\OPR_AND\
            52  4F  49  5F  52  50  4F  07  00170 P.ABW:   .ASCII   <7>\OPR_IOR\
            52  4F  45  5F  52  50  4F  07  00178 P.ABX:   .ASCII   <7>\OPR_EOR\
            47  45  4E  5F  52  50  4F  07  00180 P.ABY:   .ASCII   <7>\OPR_NEG\
            4D  4F  43  5F  52  50  4F  07  00188 P.ABZ:   .ASCII   <7>\OPR_COM\
        56  53  4E  49  5F  52  50  4F  08  00190 P.ACA:   .ASCII   <8>\OPR_INSV\
            48  53  41  5F  52  50  4F  07  00199 P.ACB:   .ASCII   <7>\OPR_ASH\
            48  53  55  5F  52  50  4F  07  001A1 P.ACC:   .ASCII   <7>\OPR_USH\
            54  4F  52  5F  52  50  4F  07  001A9 P.ACD:   .ASCII   <7>\OPR_ROT\
            4C  45  53  5F  52  50  4F  07  001B1 P.ACE:   .ASCII   <7>\OPR_SEL\
46  45  44  45  52  5F  52  50  4F  09  001B9 P.ACF:   .ASCII   <9>\OPR_REDEF\
54  49  4C  46  44  5F  52  50  4F  09  001C3 P.ACG:   .ASCII   <9>\OPR_DFLIT\
42  52  54  45  53  5F  4C  54  43  09  001CD P.ACH:   .ASCII   <9>\CTL_SETRB\
42  52  47  55  41  5F  4C  54  43  09  001D7 P.ACI:   .ASCII   <9>\CTL_AUGRB\
43  4F  4C  46  44  5F  4C  54  43  09  001E1 P.ACJ:   .ASCII   <9>\CTL_DFLOC\
43  4F  4C  54  53  5F  4C  54  43  09  001EB P.ACK:   .ASCII   <9>\CTL_STLOC\
4C  44  4B  54  53  5F  4C  54  43  09  001F5 P.ACL:   .ASCII   <9>\CTL_STKDL\
```

```
                                        .PSECT  $OWN$,NOEXE,2

  00000000  00000 STACK_DEPTH:
                                        .LONG   0                               ;
        00#  00004 LITERAL_DEF_BITS:
                                        .BYTE   0[32]                           ;
  00000000'  00024 CMD_TABLE:
                                        .ADDRESS P.AAA
4D  59  53  00028                       .ASCII  \SYM\
        01  0002B                       .BYTE   1
  00000000' 0002C                       .ADDRESS P.AAB
00  00  42  00030                       .ASCII  \B\<0><0>
        01  00033                       .BYTE   1
  00000000' 00034                       .ADDRESS P.AAC
00  00  57  00038                       .ASCII  \W\<0><0>
        01  0003B                       .BYTE   1
  00000000' 0003C                       .ADDRESS P.AAD
00  00  4C  00040                       .ASCII  \L\<0><0>
        01  00043                       .BYTE   1
  00000000' 00044                       .ADDRESS P.AAE
42  50  42  00048                       .ASCII  \BPB\
        01  0004B                       .BYTE   1
  00000000' 0004C                       .ADDRESS P.AAF
57  50  42  00050                       .ASCII  \BPW\
        01  00053                       .BYTE   1
  00000000' 00054                       .ADDRESS P.AAG
4C  50  42  00058                       .ASCII  \BPL\
        01  0005B                       .BYTE   1
  00000000' 0005C                       .ADDRESS P.AAH
00  42  55  00060                       .ASCII  \UB\<0>
        01  00063                       .BYTE   1
  00000000' 00064                       .ADDRESS P.AAI
00  57  55  00068                       .ASCII  \UW\<0>
        01  0006B                       .BYTE   1
  00000000' 0006C                       .ADDRESS P.AAJ
00  4F  4E  00070                       .ASCII  \NO\<0>
        01  00073                       .BYTE   1
  00000000' 00074                       .ADDRESS P.AAK
00  4F  4E  00078                       .ASCII  \NO\<0>
        01  0007B                       .BYTE   1
  00000000' 0007C                       .ADDRESS P.AAL
00  4F  4E  00080                       .ASCII  \NO\<0>
        01  00083                       .BYTE   1
  00000000' 00084                       .ADDRESS P.AAM
4D  59  53  00088                       .ASCII  \SYM\
        01  0008B                       .BYTE   1
  00000000' 0008C                       .ADDRESS P.AAN
47  52  41  00090                       .ASCII  \ARG\
        01  00093                       .BYTE   1
  00000000' 00094                       .ADDRESS P.AAO
42  50  57  00098                       .ASCII  \WPB\
        01  0009B                       .BYTE   1
  00000000' 0009C                       .ADDRESS P.AAP
57  50  57  000A0                       .ASCII  \WPW\
        01  000A3                       .BYTE   1
  00000000' 000A4                       .ADDRESS P.AAQ
```

```
 4C  50  57  000A8          .ASCII  \WPL\
         01  000AB          .BYTE   1
  00000000'  000AC          .ADDRESS P.AAR
 53  4E  45  000B0          .ASCII  \ENS\
         01  000B3          .BYTE   1
  00000000'  000B4          .ADDRESS P.AAS
 58  54  4C  000B8          .ASCII  \LTX\
         01  000BB          .BYTE   1
        00#  000BC          .BYTE   0[8]
  00000000'  000C4          .ADDRESS P.AAT
 00  4F  4E  000C8          .ASCII  \NO\<0>
         FF  000CB          .BYTE   -1
  00000000'  000CC          .ADDRESS P.AAU
 00  4F  4E  000D0          .ASCII  \NO\<0>
         FF  000D3          .BYTE   -1
  00000000'  000D4          .ADDRESS P.AAV
 00  4F  4E  000D8          .ASCII  \NO\<0>
         FF  000DB          .BYTE   -1
  00000000'  000DC          .ADDRESS P.AAW
 00  4F  4E  000E0          .ASCII  \NO\<0>
         FF  000E3          .BYTE   -1
  00000000'  000E4          .ADDRESS P.AAX
 00  4F  4E  000E8          .ASCII  \NO\<0>
         FF  000EB          .BYTE   -1
  00000000'  000EC          .ADDRESS P.AAY
 00  4F  4E  000F0          .ASCII  \NO\<0>
         FF  000F3          .BYTE   -1
  00000000'  000F4          .ADDRESS P.AAZ
 00  4F  4E  000F8          .ASCII  \NO\<0>
         FF  000FB          .BYTE   -1
  00000000'  000FC          .ADDRESS P.ABA
 00  4F  4E  00100          .ASCII  \NO\<0>
         FF  00103          .BYTE   -1
  00000000'  00104          .ADDRESS P.ABB
 00  4F  4E  00108          .ASCII  \NO\<0>
         FF  0010B          .BYTE   -1
  00000000'  0010C          .ADDRESS P.ABC
 00  4F  4E  00110          .ASCII  \NO\<0>
         FE  00113          .BYTE   -2
  00000000'  00114          .ADDRESS P.ABD
 00  4F  4E  00118          .ASCII  \NO\<0>
         FE  0011B          .BYTE   -2
  00000000'  0011C          .ADDRESS P.ABE
 00  4F  4E  00120          .ASCII  \NO\<0>
         FE  00123          .BYTE   -2
  00000000'  00124          .ADDRESS P.ABF
 44  4C  56  00128          .ASCII  \VLD\
         FF  0012B          .BYTE   -1
  00000000'  0012C          .ADDRESS P.ABG
 00  4F  4E  00130          .ASCII  \NO\<0>
         FF  00133          .BYTE   -1
  00000000'  00134          .ADDRESS P.ABH
 00  4F  4E  00138          .ASCII  \NO\<0>
         FF  0013B          .BYTE   -1
  00000000'  0013C          .ADDRESS P.ABI
 00  4F  4E  00140          .ASCII  \NO\<0>
         FE  00143          .BYTE   -2
```

```
      00000000'  00144        .ADDRESS P.ABJ
   00  4F  4E    00148        .ASCII   \NO\<0>
           FE    0014B        .BYTE    -2
      00000000'  0014C        .ADDRESS P.ABK
   00  4F  4E    00150        .ASCII   \NO\<0>
           FF    00153        .BYTE    -1
      00000000'  00154        .ADDRESS P.ABL
   00  4F  4E    00158        .ASCII   \NO\<0>
           FF    0015B        .BYTE    -1
      00000000'  0015C        .ADDRESS P.ABM
   00  4F  4E    00160        .ASCII   \NO\<0>
           FE    00163        .BYTE    -2
      00000000'  00164        .ADDRESS P.ABN
   00  4F  4E    00168        .ASCII   \NO\<0>
           FE    0016B        .BYTE    -2
      00000000'  0016C        .ADDRESS P.ABO
   54  58  54    00170        .ASCII   \TXT\
           FF    00173        .BYTE    -1
      00000000'  00174        .ADDRESS P.ABP
   00  4F  4E    00178        .ASCII   \NO\<0>
           FE    0017B        .BYTE    -2
          00#    0017C        .BYTE    0[56]
      00000000'  001B4        .ADDRESS P.ABQ
   00  4F  4E    001B8        .ASCII   \NO\<0>
           00    001BB        .BYTE    0
      00000000'  001BC        .ADDRESS P.ABR
   00  4F  4E    001C0        .ASCII   \NO\<0>
           FF    001C3        .BYTE    -1
      00000000'  001C4        .ADDRESS P.ABS
   00  4F  4E    001C8        .ASCII   \NO\<0>
           FF    001CB        .BYTE    -1
      00000000'  001CC        .ADDRESS P.ABT
   00  4F  4E    001D0        .ASCII   \NO\<0>
           FF    001D3        .BYTE    -1
      00000000'  001D4        .ADDRESS P.ABU
   00  4F  4E    001D8        .ASCII   \NO\<0>
           FF    001DB        .BYTE    -1
      00000000'  001DC        .ADDRESS P.ABV
   00  4F  4E    001E0        .ASCII   \NO\<0>
           FF    001E3        .BYTE    -1
      00000000'  001E4        .ADDRESS P.ABW
   00  4F  4E    001E8        .ASCII   \NO\<0>
           FF    001EB        .BYTE    -1
      00000000'  001EC        .ADDRESS P.ABX
   00  4F  4E    001F0        .ASCII   \NO\<0>
           FF    001F3        .BYTE    -1
      00000000'  001F4        .ADDRESS P.ABY
   00  4F  4E    001F8        .ASCII   \NO\<0>
           00    001FB        .BYTE    0
      00000000'  001FC        .ADDRESS P.ABZ
   00  4F  4E    00200        .ASCII   \NO\<0>
           00    00203        .BYTE    0
      00000000'  00204        .ADDRESS P.ACA
   44  4C  56    00208        .ASCII   \VLD\
           FF    0020B        .BYTE    -1
      00000000'  0020C        .ADDRESS P.ACB
   00  4F  4E    00210        .ASCII   \NO\<0>
```

```
                FF  00213          .BYTE   -1
  00000000'     00214          .ADDRESS P.ACC
00  4F  4E      00218          .ASCII  \NO\<0>
                FF  0021B          .BYTE   -1
  00000000'     0021C          .ADDRESS P.ACD
00  4F  4E      00220          .ASCII  \NO\<0>
                FF  00223          .BYTE   -1
  00000000'     00224          .ADDRESS P.ACE
00  4F  4E      00228          .ASCII  \NO\<0>
                FE  0022B          .BYTE   -2
  00000000'     0022C          .ADDRESS P.ACF
4D  59  53      00230          .ASCII  \SYM\
                00  00233          .BYTE   0
  00000000'     00234          .ADDRESS P.ACG
58  54  4C      00238          .ASCII  \LTX\
                FF  0023B          .BYTE   -1
                00# 0023C          .BYTE   0[104]
  00000000'     002A4          .ADDRESS P.ACH
00  4F  4E      002A8          .ASCII  \NO\<0>
                FF  002AB          .BYTE   -1
  00000000'     002AC          .ADDRESS P.ACI
00  00  4C      002B0          .ASCII  \L\<0><0>
                00  002B3          .BYTE   0
  00000000'     002B4          .ADDRESS P.ACJ
00  4F  4E      002B8          .ASCII  \NO\<0>
                FF  002BB          .BYTE   -1
  00000000'     002BC          .ADDRESS P.ACK
00  4F  4E      002C0          .ASCII  \NO\<0>
                FF  002C3          .BYTE   -1
  00000000'     002C4          .ADDRESS P.ACL
00  4F  4E      002C8          .ASCII  \NO\<0>
                00  002CB          .BYTE   0
                00# 002CC          .BYTE   0[344]

                                   .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
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                .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$_OBJSRCREC
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                .EXTRN  ANLOBJ$_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$_EXEBADFIXUPVBN
                .EXTRN  ANLOBJ$_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
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                                                        .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$CHECK_SYMBOL
                                                        .EXTRN  ANL$FORMAT_ERROR
                                                        .EXTRN  ANL$FORMAT_HEX, ANL$FORMAT_LINE
                                                        .EXTRN  ANL$OBJECT_ARGUMENT_DSC
                                                        .EXTRN  ANL$OBJECT_ENV_REF
                                                        .EXTRN  ANL$OBJECT_PSECT_REF
                                                        .EXTRN  ANL$OBJECT_RECORD_LINE
                                                        .EXTRN  ANL$REPORT_LINE

                                                        .PSECT  $CODE$,NOWRT,2

                                    0FFC 00000          .ENTRY  ANL$OBJECT_TIR, Save R2,R3,R4,R5,R6,R7,R8,- ; 0573
                                                                R9,R10,R11
                                5E          08  C2 00002 SUBL2   #8, SP
                                56      08  AC  D0 00005 MOVL    THE_RECORD, R6                              ; 0576
                                57      04  A6  9E 00009 MOVAB   4(R6), R7                                  ; 0704
                                            67  DD 0000D PUSHL   (R7)
                                58      00  BE  90 0000F MOVB    @SCANP, RECORD_TYPE                         ; 0705
                                            56  DD 00013 PUSHL   R6                                          ; 0706
                                        04  AC  DD 00015 PUSHL   RECORD_NUMBER                               ; 0711
                                02          58  91 00018 CMPB    RECORD_TYPE, #2                             ; 0707
                                            08  12 0001B BNEQ    1$
                                00000000G   8F  DD 0001D PUSHL   #ANLOBJ$_OBJTIRREC
                                            1D  11 00023 BRB     4$
                                04          58  91 00025 1$:    CMPB    RECORD_TYPE, #4                     ; 0708
                                            08  12 00028 BNEQ    2$
                                00000000G   8F  DD 0002A PUSHL   #ANLOBJ$_OBJDBGREC
                                            10  11 00030 BRB     4$
                                05          58  91 00032 2$:    CMPB    RECORD_TYPE, #5                     ; 0709
                                            05  13 00035 BEQL    3$
                                7E          01  CE 00037 MNEGL   #1, -(SP)
                                            06  11 0003A BRB     4$
                                00000000G   8F  DD 0003C 3$:    PUSHL   #ANLOBJ$_OBJTBTREC
                        0000G   CF          03  FB 00042 4$:    CALLS   #3, ANL$OBJECT_RECORD_LINE          ; 0706
                                            6E  D6 00047 INCL    SCANP                                       ; 0712
                                            59  D4 00049 CLRL    COMMAND_NUMBER                              ; 0719
                                54          01  90 0004B MOVB    #1, FIT_OK                                  ; 0720
                                55          66  3C 0004E 5$:    MOVZWL  (R6), R5                            ; 0721
                                55          67  C0 00051 ADDL2   (R7), R5
                                55          6E  D1 00054 CMPL    SCANP, R5
                                            01  1F 00057 BLSSU   6$
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```
                                  04 00059        RET                                        ;
                   01        54   E8 0005A 6$:    BLBS    FIT_OK, 7$                          ;
                                  04 0005D        RET                                        ;
                             59   D6 0005E 7$:    INCL    COMMAND_NUMBER                      ; 0725
                             7E   D4 00060        CLRL    -(SP)                               ; 0726
            0000G  CF        01   FB 00062        CALLS   #1, ANL$REPORT_LINE                 ;
                   5B    00  BE   90 00067        MOVB    @SCANP, COMMAND                     ; 0731
                             6E   D6 0006B        INCL    SCANP                               ; 0732
                   53        5B   98 0006D        CVTBL   COMMAND, R3                         ; 0733
                             2D   18 00070        BGEQ    8$                                  ;
                   52        53   CE 00072        MNEGL   R3, R2                              ; 0738
                             52   DD 00075        PUSHL   R2                                  ;
                             59   DD 00077        PUSHL   COMMAND_NUMBER                      ;
                  00000000G  8F   DD 00079        PUSHL   #ANLOBJ$_OBJTIRSTOIM                ;
                             01   DD 0007F        PUSHL   #1                                  ;
                             01   DD 00081        PUSHL   #1                                  ;
            0000G  CF        05   FB 00083        CALLS   #5, ANL$FORMAT_LINE                 ;
               04  AE        52   D0 00088        MOVL    R2, WORK_DSC                        ; 0739
               08  AE        6E   D0 0008C        MOVL    SCANP, WORK_DSC+4                   ;
                         04  AE   9F 00090        PUSHAB  WORK_DSC                            ; 0740
                             02   DD 00093        PUSHL   #2                                  ;
            0000G  CF        02   FB 00095        CALLS   #2, ANL$FORMAT_HEX                  ;
                   6E        52   C0 0009A        ADDL2   R2, SCANP                           ; 0741
                             AF   11 0009D        BRB     5$                                  ; 0733
                      0000'CF43   7F 0009F 8$:    PUSHAQ  CMD_TABLE[R3]                       ; 0749
                   52        9E   D0 000A4        MOVL    @(SP)+, R2                          ;
                             28   12 000A7        BNEQ    9$                                  ;
                             53   DD 000A9        PUSHL   R3                                  ; 0750
                  00000000G  8F   DD 000AB        PUSHL   #ANLOBJ$_OBJTIRRES                  ;
            0000G  CF        02   FB 000B1        CALLS   #2, ANL$FORMAT_ERROR                ;
        50         67        6E   C3 000B6        SUBL3   SCANP, (R7), R0                     ; 0751
                   51        66   3C 000BA        MOVZWL  (R6), R1                            ;
   04   AE         50        51   C1 000BD        ADDL3   R1, R0, WORK_DSC                    ;
               08  AE        67   D0 000C2        MOVL    (R7), WORK_DSC+4                    ;
                         04  AE   9F 000C6        PUSHAB  WORK_DSC                            ; 0752
                             02   DD 000C9        PUSHL   #2                                  ;
            0000G  CF        02   FB 000CB        CALLS   #2, ANL$FORMAT_HEX                  ;
                                  04 000D0        RET                                        ; 0749
                      0000'CF43   7F 000D1 9$:    PUSHAQ  CMD_TABLE+7[R3]                     ; 0760
                   50        9E   98 000D6        CVTBL   @(SP)+, R0                          ;
            0000'  CF        50   C0 000D9        ADDL2   R0, STACK_DEPTH                     ;
                      0000'  CF   DD 000DE        PUSHL   STACK_DEPTH                         ; 0765
                             0C   BB 000E2        PUSHR   #^M<R2,R3>                          ; 0764
                             59   DD 000E4        PUSHL   COMMAND_NUMBER                      ;
                      0000'CF43   7F 000E6        PUSHAQ  CMD_TABLE+7[R3]                     ; 0762
                             9E   95 000EB        TSTB    @(SP)+                              ;
                             08   12 000ED        BNEQ    10$                                 ;
                  00000000G  8F   DD 000EF        PUSHL   #ANLOBJ$_OBJTIRCMD                  ;
                             06   11 000F5        BRB     11$                                 ;
                  00000000G  8F   DD 000F7 10$:   PUSHL   #ANLOBJ$_OBJTIRCMDSTK               ;
                             01   DD 000FD 11$:   PUSHL   #1                                  ; 0761
                             02   DD 000FF        PUSHL   #2                                  ;
            0000G  CF        07   FB 00101        CALLS   #7, ANL$FORMAT_LINE                 ;
                      0000'CF43   7F 00106        PUSHAQ  CMD_TABLE+4[R3]                     ; 0773
  52           9E            18   00 EF 0010B     EXTZV   #0, #24, @(SP)+, R2                 ;
          00005042 8F        52   D1 00110        CMPL    R2, #20546                          ; 0776
                             1B   13 00117        BEQL    12$                                 ;
```

```
        00425042  8F           52  D1 00119        CMPL    R2, #4345922                ;
                               12  13 00120        BEQL    12$                         ;
        004C5042  8F           52  D1 00122        CMPL    R2, #5001282                ;
                               09  13 00129        BEQL    12$                         ;
        00575042  8F           52  D1 0012B        CMPL    R2, #5722178                ;
                               3A  12 00132        BNEQ    14$                         ;
                  37           54  E9 00134 12$:   BLBC    FIT_OK, 14$                 ; 0783
50                6E           01  C1 00137        ADDL3   #1, SCANP, R0               ;
                  55           50  D1 0013B        CMPL    R0, R5                      ;
                               0D  1B 0013E        BLEQU   13$                         ;
                     00000000G 8F  DD 00140        PUSHL   #ANLOBJ$_FIELDFIT           ;
            0000G CF           01  FB 00146        CALLS   #1, ANL$FORMAT_ERROR        ;
                               54  94 0014B        CLRB    FIT_OK                      ;
                  1E           54  E9 0014D 13$:   BLBC    FIT_OK, 14$                 ; 0784
                  7E        00 BE  9A 00150        MOVZBL  @SCANP, -(SP)               ; 0785
                     00000000G 8F  DD 00154        PUSHL   #ANLOBJ$_OBJPSECT           ;
                               02  DD 0015A        PUSHL   #2                          ;
                               7E  D4 0015C        CLRL    -(SP)                       ;
            0000G CF           04  FB 0015E        CALLS   #4, ANL$FORMAT_LINE         ;
                  7E        00 BE  9A 00163        MOVZBL  @SCANP, -(SP)               ; 0786
            0000G CF           01  FB 00167        CALLS   #1, ANL$OBJECT_PSECT_REF    ;
                               6E  D6 0016C        INCL    SCANP                       ; 0787
        00005057  8F           52  D1 0016E 14$:   CMPL    R2, #20567                  ; 0791
                               1B  13 00175        BEQL    15$                         ;
        00425057  8F           52  D1 00177        CMPL    R2, #4345943                ;
                               12  13 0017E        BEQL    15$                         ;
        004C5057  8F           52  D1 00180        CMPL    R2, #5001303                ;
                                9  13 00187        BEQL    15$                         ;
        00575057  8F           ,2  D1 00189        CMPL    R2, #5722199                ;
                               3B  12 00190        BNEQ    17$                         ;
                  38           54  E9 00192 15$:   BLBC    FIT_OK, 17$                 ; 0797
50                6E           02  C1 00195        ADDL3   #2, SCANP, R0               ;
                  55           50  D1 00199        CMPL    R0, R5                      ;
                               0D  1B 0019C        BLEQU   16$                         ;
                     00000000G 8F  DD 0019E        PUSHL   #ANLOBJ$_FIELDFIT           ;
            0000G CF           01  FB 001A4        CALLS   #1, ANL$FORMAT_ERROR        ;
                               54  94 001A9        CLRB    FIT_OK                      ;
                  1F           54  E9 001AB 16$:   BLBC    FIT_OK, 17$                 ; 0798
                  7E        00 BE  3C 001AE        MOVZWL  @SCANP, -(SP)               ; 0799
                     00000000G 8F  DD 001B2        PUSHL   #ANLOBJ$_OBJPSECT           ;
                               02  DD 001B8        PUSHL   #2                          ;
                               7E  D4 001BA        CLRL    -(SP)                       ;
            0000G CF           04  FB 001BC        CALLS   #4, ANL$FORMAT_LINE         ;
                  7E        00 BE  3C 001C1        MOVZWL  @SCANP, -(SP)               ; 0800
            0000G CF           01  FB 001C5        CALLS   #1, ANL$OBJECT_PSECT_REF    ;
                  6E           02  C0 001CA        ADDL2   #2, SCANP                   ; 0801
        00534E45  8F           52  D1 001CD 17$:   CMPL    R2, #5459525                ; 0805
                               3B  12 001D4        BNEQ    19$                         ;
                  38           54  E9 001D6        BLBC    FIT_OK, 19$                 ; 0808
50                6E           02  C1 001D9        ADDL3   #2, SCANP, R0               ;
                  55           50  D1 001DD        CMPL    R0, R5                      ;
                               0D  1B 001E0        BLEQU   18$                         ;
                     00000000G 8F  DD 001E2        PUSHL   #ANLOBJ$_FIELDFIT           ;
            0000G CF           01  FB 001E8        CALLS   #1, ANL$FORMAT_ERROR        ;
                               54  94 001ED        CLRB    FIT_OK                      ;
                  1F           54  E9 001EF 18$:   BLBC    FIT_OK, 19$                 ; 0809
                  7E        00 BE  3C 001F2        MOVZWL  @SCANP, -(SP)               ; 0810
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                   00000000G  8F  DD 001F6          PUSHL   #ANLOBJ$_OBJENV                    :
                              02  DD 001FC          PUSHL   #2                                 :
                              7E  D4 001FE          CLRL    -(SP)                              :
            0000G  CF         04  FB 00200          CALLS   #4, ANL$FORMAT_LINE                :
                   7E     00  BE  3C 00205          MOVZWL  @SCANP, -(SP)                      : 0811
            0000G  CF         01  FB 00209          CALLS   #1, ANL$OBJECT_ENV_REF             :
                   6E         02  C0 0020E          ADDL2   #2, SCANP                          : 0812
         00000042  8F         52  D1 00211  19$:    CMPL    R2, #66                            : 0815
])                            12  13 00218          BEQL    20$                                :
         00425042  8F         52  D1 0021A          CMPL    R2, #4345922                       :
                              09  13 00221          BEQL    20$                                :
         00425057  8F         52  D1 00223          CMPL    R2, #4345943                       :
                              31  12 0022A          BNEQ    22$                                :
                   2E         54  E9 0022C  20$:    BLBC    FIT_OK, 22$                        : 0820
      50           6E         01  C1 0022F          ADDL3   #1, SCANP, R0                      :
                   55         50  D1 00233          CMPL    R0, R5                             :
                              0D  1B 00236          BLEQU   21$                                :
                   00000000G  8F  DD 00238          PUSHL   #ANLOBJ$_FIELDFIT                  :
            0000G  CF         01  FB 0023E          CALLS   #1, ANL$FORMAT_ERROR               :
                              54  94 00243          CLRB    FIT_OK                             :
                   15         54  E9 00245  21$:    BLBC    FIT_OK, 22$                        : 0821
                   7E     00  BE  98 00248          CVTBL   @SCANP, -(SP)                      : 0822
                   00000000G  8F  DD 0024C          PUSHL   #ANLOBJ$_OBJVALUE                  :
                              02  DD 00252          PUSHL   #2                                 :
                              7E  D4 00254          CLRL    -(SP)                              :
            0000G  CF         04  FB 00256          CALLS   #4, ANL$FORMAT_LINE                :
                              6E  D6 0025B          INCL    SCANP                              : 0823
         00004255  8F         52  D1 0025D  22$:    CMPL    R2, #16981                         : 0827
                              31  12 00264          BNEQ    24$                                :
                   2E         54  E9 00266          BLBC    FIT_OK, 24$                        : 0829
      50           6E         01  C1 00269          ADDL3   #1, SCANP, R0                      :
                   55         50  D1 0026D          CMPL    R0, R5                             :
                              0D  1B 00270          BLEQU   23$                                :
                   00000000G  8F  DD 00272          PUSHL   #ANLOBJ$_FIELDFIT                  :
            0000G  CF         01  FB 00278          CALLS   #1, ANL$FORMAT_ERROR               :
                              54  94 0027D          CLRB    FIT_OK                             :
                   15         54  E9 0027F  23$:    BLBC    FIT_OK, 24$                        : 0830
                   7E     00  BE  9A 00282          MOVZBL  @SCANP, -(SP)                      : 0831
                   00000000G  8F  DD 00286          PUSHL   #ANLOBJ$_OBJUVALUE                 :
                              02  DD 0028C          PUSHL   #2                                 :
                              7E  D4 0028E          CLRL    -(SP)                              :
.8          0000G  CF         04  FB 00290          CALLS   #4, ANL$FORMAT_LINE                :
                              6E  D6 00295          INCL    SCANP                              : 0832
         0058544C  8F         52  D1 00297  24$:    CMPL    R2, #5788748                       : 0836
                              35  12 0029E          BNEQ    26$                                :
                   32         54  E9 002A0          BLBC    FIT_OK, 26$                        : 0839
      50           6E         01  C1 002A3          ADDL3   #1, SCANP, R0                      :
                   55         50  D1 002A7          CMPL    R0, R5                             :
                              0D  1B 002AA          BLEQU   25$                                :
                   00000000G  8F  DD 002AC          PUSHL   #ANLOBJ$_FIELDFIT                  :
            0000G  CF         01  FB 002B2          CALLS   #1, ANL$FORMAT_ERROR               :
                              54  94 002B7          CLRB    FIT_OK                             :
                   19         54  E9 002B9  25$:    BLBC    FIT_OK, 26$                        : 0840
                   7E     00  BE  9A 002BC          MOVZBL  @SCANP, -(SP)                      : 0841
                   00000000G  8F  DD 002C0          PUSHL   #ANLOBJ$_OBJLITINDEX               :
                              02  DD 002C6          PUSHL   #2                                 :
                              7E  D4 002C8          CLRL    -(SP)                              :
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          0000G   CF           04  FB 002CA        CALLS   #4, ANL$FORMAT_LINE                    ;
                  5A     00    BE  90 002CF        MOVB    @SCANP, LITERAL_INDEX                  ; 0842
                               6E  D6 002D3        INCL    SCANP                                  ; 0843
       00000057   8F           52  D1 002D5 26$:   CMPL    R2, #87                                ; 0847
                               12  13 002DC        BEQL    27$                                    ;
       00575042   8F           52  D1 002DE        CMPL    R2, #5722178                           ;
                               09  13 002E5        BEQL    27$                                    ;
       00575057   8F           52  D1 002E7        CMPL    R2, #5722199                           ;
                               32  12 002EE        BNEQ    29$                                    ;
                  2F           54  E9 002F0 27$:   BLBC    FIT_OK, 29$                            ; 0852
    50            6E           02  C1 002F3        ADDL3   #2, SCANP, R0                          ;
                  55           50  D1 002F7        CMPL    R0, R5                                 ;
                               0D  1B 002FA        BLEQU   28$                                    ;
                     00000000G 8F  DD 002FC        PUSHL   #ANLOBJ$_FIELDFIT                      ;
          0000G   CF           01  FB 00302        CALLS   #1, ANL$FORMAT_ERROR                   ;
                               54  94 00307        CLRB    FIT_OK                                 ;
                  16           54  E9 00309 28$:   BLBC    FIT_OK, 29$                            ; 0853
                  7E     00    BE  32 0030C        CVTWL   @SCANP, -(SP)                          ; 0854
                     00000000G 8F  DD 00310        PUSHL   #ANLOBJ$_OBJVALUE                      ;
                               02  DD 00316        PUSHL   #2                                     ;
                               7E  D4 00318        CLRL    -(SP)                                  ;
          0000G   CF           04  FB 0031A        CALLS   #4, ANL$FORMAT_LINE                    ;
                  6E           02  C0 0031F        ADDL2   #2, SCANP                              ; 0855
       00005755   8F           52  D1 00322 29$:   CMPL    R2, #22357                             ; 0859
                               32  12 00329        BNEQ    31$                                    ;
                  2F           54  E9 0032B        BLBC    FIT_OK, 31$                            ; 0862
    50            6E           02  C1 0032E        ADDL3   #2, SCANP, R0                          ;
                  55           50  D1 00332        CMPL    R0, R5                                 ;
                               0D  1B 00335        BLEQU   30$                                    ;
                     00000000G 8F  DD 00337        PUSHL   #ANLOBJ$_FIELDFIT                      ;
          0000G   CF           01  FB 0033D        CALLS   #1, ANL$FORMAT_ERROR                   ;
                               54  94 00342        CLRB    FIT_OK                                 ;
                  16           54  E9 00344 30$:   BLBC    FIT_OK, 31$                            ; 0863
                  7E     00    BE  3C 00347        MOVZWL  @SCANP, -(SP)                          ; 0864
                     00000000G 8F  DD 0034B        PUSHL   #ANLOBJ$_OBJUVALUE                     ;
                               02  DD 00351        PUSHL   #2                                     ;
                               7E  D4 00353        CLRL    -(SP)                                  ;
          0000G   CF           04  FB 00355        CALLS   #4, ANL$FORMAT_LINE                    ;
                  6E           02  C0 0035A        ADDL2   #2, SCANP                              ; 0865
       0000004C   8F           52  D1 0035D 31$:   CMPL    R2, #76                                ; 0869
                               12  13 00364        BEQL    32$                                    ;
       004C5042   8F           52  D1 00366        CMPL    R2, #5001282                           ;
                               09  13 0036D        BEQL    32$                                    ;
       004C5057   8F           52  D1 0036F        CMPL    R2, #5001303                           ;
                               31  12 00376        BNEQ    34$                                    ;
                  2E           54  E9 00378 32$:   BLBC    FIT_OK, 34$                            ; 0875
    50            6E           04  C1 0037B        ADDL3   #4, SCANP, R0                          ;
                  55           50  D1 0037F        CMPL    R0, R5                                 ;
                               0D  1B 00382        BLEQU   33$                                    ;
                     00000000G 8F  DD 00384        PUSHL   #ANLOBJ$_FIELDFIT                      ;
          0000G   CF           01  FB 0038A        CALLS   #1, ANL$FORMAT_ERROR                   ;
                               54  94 0038F        CLRB    FIT_OK                                 ;
                  15           54  E9 00391 33$:   BLBC    FIT_OK, 34$                            ; 0876
                         00    BE  DD 00394        PUSHL   @SCANP                                 ; 0877
                     00000000G 8F  DD 00397        PUSHL   #ANLOBJ$_OBJVALUE                      ;
                               02  DD 0039D        PUSHL   #2                                     ;
                               7E  D4 0039F        CLRL    -(SP)                                  ;
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                0000G  CF              04 FB 003A1          CALLS   #4, ANL$FORMAT_LINE
                       6E              04 C0 003A6          ADDL2   #4, SCANP                       ; 0878
            00475241   8F              52 D1 003A9 34$:     CMPL    R2, #4674113                    ; 0882
                                       12 13 003B0          BEQL    35$
            004D5953   8F              52 D1 003B2          CMPL    R2, #5069139
                                       09 13 003B9          BEQL    35$
            00534E45   8F              52 D1 003BB          CMPL    R2, #5459525
                                       75 12 003C2          BNEQ    38$
                       72              54 E9 003C4 35$:     BLBC    FIT_OK, 38$                     ; 0887
                50     6E              01 C1 003C7          ADDL3   #1, SCANP, R0
                       55              50 D1 003CB          CMPL    R0, R5
                                       0D 1B 003CE          BLEQU   36$
                           00000000G   8F DD 003D0          PUSHL   #ANLOBJ$_FIELDFIT
                0000G  CF              01 FB 003D6          CALLS   #1, ANL$FORMAT_ERROR
                                       54 94 003DB          CLRB    FIT_OK
                       59              54 E9 003DD 36$:     BLBC    FIT_OK, 38$
                  04   AE        00    BE 9A 003E0          MOVZBL  @SCANP, WORK_DSC
            08    AE   6E              01 C1 003E5          ADDL3   #1, SCANP, WORK_DSC+4
                       4C              54 E9 003EA          BLBC    FIT_OK, 38$
                       50        04    AE 3C 003ED          MOVZWL  WORK_DSC, R0
                       50              08 C6 003F1          DIVL2   #8, R0
                       50              6E C0 003F4          ADDL2   SCANP, R0
                                       50 D6 003F7          INCL    R0
                       55              50 D1 003F9          CMPL    R0, R5
                                       0D 1B 003FC          BLEQU   37$
                           00000000G   8F DD 003FE          PUSHL   #ANLOBJ$_FIELDFIT
                0000G  CF              01 FB 00404          CALLS   #1, ANL$FORMAT_ERROR
                                       54 94 00409          CLRB    FIT_OK
                       2B              54 E9 0040B 37$:     BLBC    FIT_OK, 38$                     ; 0888
                             08        AE DD 0040E          PUSHL   WORK_DSC+4                      ; 0889
                       7E    08        AE 3C 00411          MOVZWL  WORK_DSC, -(SP)
                           00000000G   8F DD 00415          PUSHL   #ANLOBJ$_OBJSYMBOL
                                       02 DD 0041B          PUSHL   #2
                                       7E D4 0041D          CLRL    -(SP)
                0000G  CF              05 FB 0041F          CALLS   #5, ANL$FORMAT_LINE
                                       1F DD 00424          PUSHL   #31                             ; 0890
                             08        AE 9F 00426          PUSHAB  WORK_DSC
                0000G  CF              02 FB 00429          CALLS   #2, ANL$CHECK_SYMBOL
                       50        04    AE 3C 0042E          MOVZWL  WORK_DSC, R0                    ; 0891
                       50              6E C0 00432          ADDL2   SCANP, R0
                       6E        01    A0 9E 00435          MOVAB   1(R0), SCANP
            00475241   8F              52 D1 00439 38$:     CMPL    R2, #4674113                    ; 0895
                                       40 12 00440          BNEQ    40$
                       3D              54 E9 00442          BLBC    FIT_OK, 40$                     ; 0900
          50           6E              01 C1 00445          ADDL3   #1, SCANP, R0
                       55              50 D1 00449          CMPL    R0, R5
                                       0D 1B 0044C          BLEQU   39$
                           00000000G   8F DD 0044E          PUSHL   #ANLOBJ$_FIELDFIT
                0000G  CF              01 FB 00454          CALLS   #1, ANL$FORMAT_ERROR
                                       54 94 00459          CLRB    FIT_OK
                       24              54 E9 0045B 39$:     BLBC    FIT_OK, 40$                     ; 0901
                       7E        00    BE 9A 0045E          MOVZBL  @SCANP, -(SP)                   ; 0902
                           00000000G   8F DD 00462          PUSHL   #ANLOBJ$_OBJTIRARGINDEX
                                       02 DD 00468          PUSHL   #2
                                       7E D4 0046A          CLRL    -(SP)
                0000G  CF              04 FB 0046C          CALLS   #4, ANL$FORMAT_LINE
                                       6E D6 00471          INCL    SCANP                           ; 0903
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                                      56 DD 00473          PUSHL   R6                              ; 0904
                              04      AE 9F 00475          PUSHAB  SCANP                           ;
                                      03 DD 00478          PUSHL   #3                              ;
              0000G   CF              03 FB 0047A          CALLS   #3, ANL$OBJECT_ARGUMENT_DSC     ;
                      54              50 90 0047F          MOVB    R0, FIT_OK                      ;
           00545854   8F              52 D1 00482 40$:     CMPL    R2, #5527636                    ; 0908
                                      6B 12 00489          BNEQ    43$                             ;
                      68              54 E9 0048B          BLBC    FIT_OK, 43$                     ; 0910
         50           6E              01 C1 0048E          ADDL3   #1, SCANP, R0                   ;
                      55              66 3C 00492          MOVZWL  (R6), R5                        ;
                      55              67 C0 00495          ADDL2   (R7), R5                        ;
                      55              50 D1 00498          CMPL    R0, R5                          ;
                                      0D 1B 0049B          BLEQU   41$                             ;
                          00000000G   8F DD 0049D          PUSHL   #ANLOBJ$_FIELDFIT               ;
              0000G   CF              01 FB 004A3          CALLS   #1, ANL$FORMAT_ERROR            ;
                                      54 94 004A8          CLRB    FIT_OK                          ;
                      49              54 E9 004AA 41$:     BLBC    FIT_OK, 43$                     ;
              04      AE      00      BE 9A 004AD          MOVZBL  @SCANP, WORK_DSC                ;
     08  AE           6E              01 C1 004B2          ADDL3   #1, SCANP, WORK_DSC+4           ;
                      3C              54 E9 004B7          BLBC    FIT_OK, 43$                     ;
                      50      04      AE 3C 004BA          MOVZWL  WORK_DSC, R0                    ;
                      50              08 C6 004BE          DIVL2   #8, R0                          ;
                      50              6E C0 004C1          ADDL2   SCANP, R0                       ;
                                      50 D6 004C4          INCL    R0                              ;
                      55              66 3C 004C6          MOVZWL  (R6), R5                        ;
                      55              67 C0 004C9          ADDL2   (R7), R5                        ;
                      55              50 D1 004CC          CMPL    R0, R5                          ;
                                      0D 1B 004CF          BLEQU   42$                             ;
                          00000000G   8F DD 004D1          PUSHL   #ANLOBJ$_FIELDFIT               ;
              0000G   CF              01 FB 004D7          CALLS   #1, ANL$FORMAT_ERROR            ;
                                      54 94 004DC          CLRB    FIT_OK                          ;
                      15              54 E9 004DE 42$:     BLBC    FIT_OK, 43$                     ; 0911
                              04      AE 9F 004E1          PUSHAB  WORK_DSC                        ; 0912
                                      02 DD 004E4          PUSHL   #2                              ;
              0000G   CF              02 FB 004E6          CALLS   #2, ANL$FORMAT_HEX              ;
                      50      04      AE 3C 004EB          MOVZWL  WORK_DSC, R0                    ; 0913
                      50              6E C0 004EF          ADDL2   SCANP, R0                       ;
                      6E      01      A0 9E 004F2          MOVAB   1(R0), SCANP                    ;
           00444C56   8F              52 D1 004F6 43$:     CMPL    R2, #4475990                    ; 0917
                                      6C 12 004FD          BNEQ    47$                             ;
                      69              54 E9 004FF          BLBC    FIT_OK, 47$                     ; 0920
         50           6E              02 C1 00502          ADDL3   #2, SCANP, R0                   ;
                      55              66 3C 00506          MOVZWL  (R6), R5                        ;
                      55              67 C0 00509          ADDL2   (R7), R5                        ;
                      55              50 D1 0050C          CMPL    R0, R5                          ;
                                      0D 1B 0050F          BLEQU   44$                             ;
                          00000000G   8F DD 00511          PUSHL   #ANLOBJ$_FIELDFIT               ;
              0000G   CF              01 FB 00517          CALLS   #1, ANL$FORMAT_ERROR            ;
                                      54 94 0051C          CLRB    FIT_OK                          ;
                      4A              54 E9 0051E 44$:     BLBC    FIT_OK, 47$                     ; 0921
                      52              6E D0 00521          MOVL    SCANP, R2                       ; 0922
                      7E      01      A2 9A 00524          MOVZBL  1(R2), -(SP)                    ;
                      7E              62 9A 00528          MOVZBL  (R2), -(SP)                     ;
                          00000000G   8F DD 0052B          PUSHL   #ANLOBJ$_OBJTIRVIELD            ;
                                      02 DD 00531          PUSHL   #2                              ;
                                      7E D4 00533          CLRL    -(SP)                           ;
              0000G   CF              05 FB 00535          CALLS   #5, ANL$FORMAT_LINE             ;
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                       51            62  9A 0053A          MOVZBL  (R2), R1                          ; 0923
                       50        01  A2  9A 0053D          MOVZBL  1(R2), R0                         ;
                       51            50  C0 00541          ADDL2   R0, R1                            ;
                       50            62  9A 00544          MOVZBL  (R2), R0                          ; 0924
                       50            08  C0 00547          ADDL2   #8, R0                            ;
                       50            08  C6 0054A          DIVL2   #8, R0                            ;
                       50            08  C4 0054D          MULL2   #8, R0                            ;
                       1F            50  D1 00550          CMPL    R0, #31                           ;
                                     03  1B 00553          BLEQU   45$                               ;
                       50            1F  D0 00555          MOVL    #31, R0                           ;
                       50            51  D1 00558 45$:     CMPL    R1, R0                            ;
                                     0B  1B 0055B          BLEQU   46$                               ;
                         00000000G   8F  DD 0055D          PUSHL   #ANLOBJ$_OBJBADVIELD              ; 0925
               0000G   CF            01  FB 00563          CALLS   #1, ANL$FORMAT_ERROR              ;
                       6E            02  C0 00568 46$:     ADDL2   #2, SCANP                         ; 0926
                             0000'   CF  D5 0056B 47$:     TSTL    STACK_DEPTH                       ; 0933
                                     0B  18 0056F          BGEQ    48$                               ;
                         00000000G   8F  DD 00571          PUSHL   #ANLOBJ$_OBJBADPOP                ; 0934
               0000G   CF            01  FB 00577          CALLS   #1, ANL$FORMAT_ERROR              ;
                       12            53  91 0057C 48$:     CMPB    R3, #18                           ; 0940
                                     11  12 0057F          BNEQ    49$                               ;
                       50            5A  9A 00581          MOVZBL  LITERAL_INDEX, R0                 ; 0945
         35    0000'   CF            50  E0 00584          BBS     R0, LITERAL_DEF_BITS, 52$         ;
                         00000000G   8F  DD 0058A          PUSHL   #ANLOBJ$_OBJUNDEFLIT              ; 0946
                                     28  11 00590          BRB     51$                               ;
                  42   8F            53  91 00592 49$:     CMPB    R3, #66                           ; 0948
                                     0B  12 00596          BNEQ    50$                               ;
                       50            5A  9A 00598          MOVZBL  LITERAL_INDEX, R0                 ; 0953
         1E    0000'   CF            50  E2 0059B          BBSS    R0, LITERAL_DEF_BITS, 52$         ;
                                     1C  11 005A1          BRB     52$                               ;
                  52   8F            53  91 005A3 50$:     CMPB    R3, #82                           ; 0955
                                     16  1F 005A7          BLSSU   52$                               ;
                  54   8F            53  91 005A9          CMPB    R3, #84                           ;
                                     10  1A 005AD          BGTRU   52$                               ;
                       02            58  91 005AF          CMPB    RECORD_TYPE, #2                   ; 0962
                                     0B  12 005B2          BNEQ    52$                               ;
                         00000000G   8F  DD 005B4          PUSHL   #ANLOBJ$_OBJNONTIRCMD             ; 0963
               0000G   CF            01  FB 005BA 51$:     CALLS   #1, ANL$FORMAT_ERROR              ;
                                   FA8C  31 005BF 52$:     BRW     5$                                ; 0721
                                         04 005C2          RET                                       ; 0976

; Routine Size:  1475 bytes,    Routine Base:  $CODE$ + 0000
```

```
;  549          0977  1 %sbttl 'ANL$OBJECT_TIR_CLEAN - Check TIR Errors and Clean Up'
;  550          0978  1 !++
;  551          0979  1 ! Functional Description:
;  552          0980  1 !       This routine is called at the end of each module to check for any
;  553          0981  1 !       global TIR errors (e.g., stack not empty).  It also cleans up for
;  554          0982  1 !       the next module.
;  555          0983  1 !
;  556          0984  1 ! Formal Parameters:
;  557          0985  1 !       none
;  558          0986  1 !
;  559          0987  1 ! Implicit Inputs:
;  560          0988  1 !       global data
;  561          0989  1 !
;  562          0990  1 ! Implicit Outputs:
;  563          0991  1 !       global data
;  564          0992  1 !
;  565          0993  1 ! Returned Value:
;  566          0994  1 !       none
;  567          0995  1 !
;  568          0996  1 ! Side Effects:
;  569          0997  1 !
;  570          0998  1 !--
;  571          0999  1
;  572          1000  1
;  573          1001  2 global routine anl$object_tir_clean: novalue = begin
;  574          1002  2
;  575          1003  2
;  576          1004  2 ! If the stack isn't clean, issue an error message.
;  577          1005  2
;  578          1006  2 if .stack_depth gtr 0 then
;  579          1007  2         anl$format_error(anlobj$_objbadpush,.stack_depth);
;  580          1008  2
;  581          1009  2 ! Now just clean it out anyway.
;  582          1010  2
;  583          1011  2 stack_depth = 0;
;  584          1012  2
;  585          1013  2 ! Clear all the literal definition bits.
;  586          1014  2
;  587          1015  2 ch$fill(%x'00', %allocation(literal_def_bits),literal_def_bits);
;  588          1016  2
;  589          1017  2 return;
;  590          1018  2
;  591          1019  1 end;


                                                003C 00000          .ENTRY  ANL$OBJECT_TIR_CLEAN, Save R2,R3,R4,R5      ; 1001
                                    50      0000' CF   D0 00002     MOVL    STACK_DEPTH, R0                             ; 1006
                                                  0D   15 00007     BLEQ    1$                                          ;
                                                  50   DD 00009     PUSHL   R0                                          ; 1007
                                       00000000G  8F   DD 0000B     PUSHL   #ANLOBJ$_OBJBADPUSH                         ;
                                0000G  CF                 02   FB 00011     CALLS   #2, ANL$FORMAT_ERROR                ;
                                           0000' CF   D4 00016 1$:  CLRL    STACK_DEPTH                                 ; 1011
                          20       00      6E             00   2C 0001A     MOVC5   #0, (SP), #0, #32, LITERAL_DEF_BITS ; 1015
                                           0000' CF                0001F                                               ;
```

```
                                                     04 00022         RET                          ; 1019

; Routine Size:  35 bytes,    Routine Base:  $CODE$ + 05C3


;  592          1020  1
;  593          1021  0 end eludom



;                                  PSECT SUMMARY
;
;        Name                    Bytes                       Attributes
;
;  $OWN$                          1060  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $PLIT$                          511  NOVEC,NOWRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $CODE$                         1510  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]STARLET.L32;1         9776        20         0        581       00:01.0



;                                  COMMAND QUALIFIERS

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

; Size:          1510 code + 1571 data bytes
; Run Time:         00:30.6
; Elapsed Time:     01:25.6
; Lines/CPU Min:     2004
; Lexemes/CPU-Min: 24691
; Memory Used:  442 pages
; Compilation Complete
```

OB MISC
LIS

RMS21DX
LIS

RMS31DX
LIS

RMS
LIS

OBJUTIR
LIS