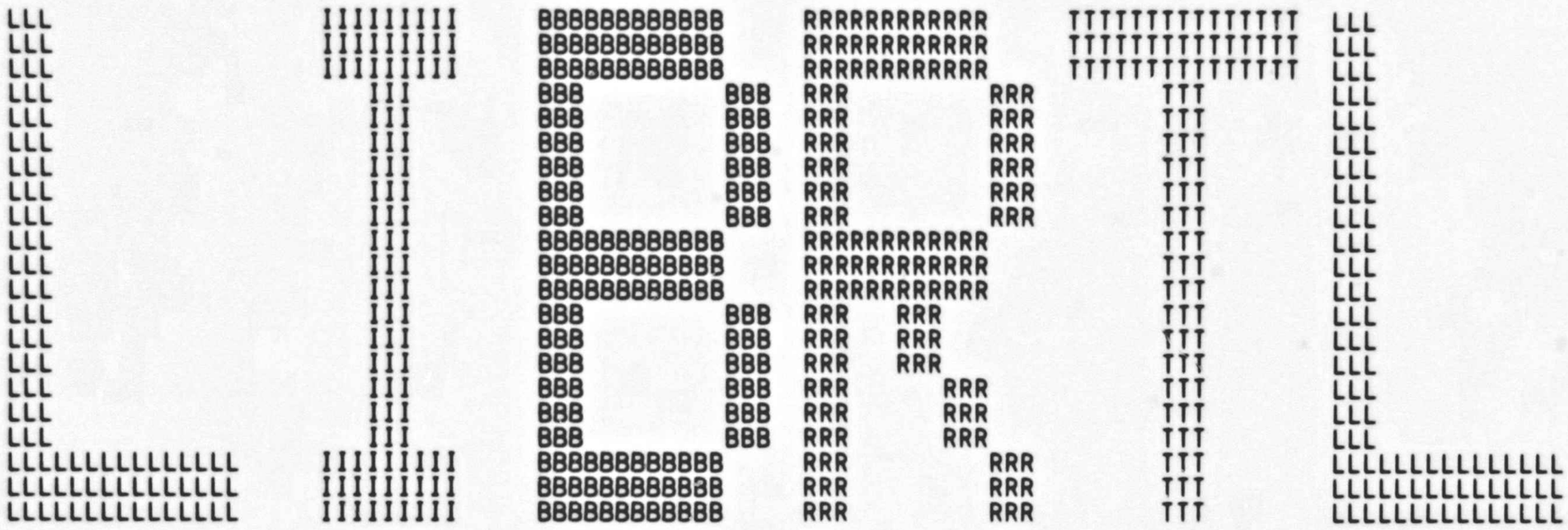
LLL IIIIIIIII BBBBBBBBBBB RRRRRRRRRRR TTTTTTTTTTTTTTT LLL
LLL IIIIIIIII BBBBBBBBBBBB RRRRRRRRRRRR TTTTTTTTTTTTTTT LLL
LLL IIIIIIIII BBBBBBBBBBBB RRRRRRRRRRR TTTTTTTTTTTTTTT LLL
LLL III BBB BBB RRR RRR TTT LLL
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LLL III BBB BBB RRR RRR TTT LLL
LLL III BBBBBBBBBBB RRRRRRRRRRR TTT LLL
LLL III BBBBBBBBBBBB RRRRRRRRRRRR TTT LLL
LLL III BBBBBBBBBBBB RRRRRRRRRRRR TTT LLL
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LLL III BBB BBB RRR RRR TTT LLL
LLL III BBB BBB RRR RRR TTT LLL
LLLLLLLLLLLLLLL IIIIIIIII BBBBBBBBBBBB RRR RRR TTT LLLLLLLLLLLLLLL
LLLLLLLLLLLLLLL IIIIIIIII BBBBBBBBBBBB RRR RRR TTT LLLLLLLLLLLLLLL
LLLLLLLLLLLLLLL IIIIIIIII BBBBBBBBBBBB RRR RRR TTT LLLLLLLLLLLLLLL

FILEID**LIBCVTDX

```
LL          IIIIII   BBBBBBBB     CCCCCCCC  VV      VV  TTTTTTTTTT  DDDDDDDD    XX      XX
LL          IIIIII   BBBBBBBB     CCCCCCCC  VV      VV  TTTTTTTTTT  DDDDDDDD    XX      XX
LL            II     BB      BB   CC        VV      VV      TT      DD      DD  XX      XX
LL            II     BB      BB   CC        VV      VV      TT      DD      DD  XX      XX
LL            II     BB      BB   CC        VV      VV      TT      DD      DD    XX  XX
LL            II     BB      BB   CC        VV      VV      TT      DD      DD    XX  XX
LL            II     BBBBBBBB     CC        VV      VV      TT      DD      DD      XX
LL            II     BBBBBBBB     CC        VV      VV      TT      DD      DD      XX
LL            II     BB      BB   CC        VV      VV      TT      DD      DD    XX  XX
LL            II     BB      BB   CC        VV      VV      TT      DD      DD    XX  XX
LL            II     BB      BB   CC          VV  VV        TT      DD      DD  XX      XX      ....
LL            II     BB      BB   CC          VV  VV        TT      DD      DD  XX      XX      ....
LLLLLLLLLL  IIIIII   BBBBBBBB     CCCCCCCC      VV          TT      DDDDDDDD    XX      XX      ....
LLLLLLLLLL  IIIIII   BBBBBBBB     CCCCCCCC      VV          TT      DDDDDDDD    XX      XX      ....

LL          IIIIII     SSSSSSSS
LL          IIIIII   SSSSSSSS
LL            II     SS
LL            II     SS
LL            II     SS
LL            II     SS
LL            II       SSSSSS
LL            II       SSSSSS
LL            II             SS
LL            II             SS
LL            II             SS
LL            II             SS
LLLLLLLLLL  IIIIII   SSSSSSSS
LLLLLLLLLL  IIIIII   SSSSSSSS
```

```
;    1          0001  0 %TITLE 'LIB$CVT_DX_DX  any to any data type conversion'
;    2          0002  0 MODULE LIB$CVTDXDX (                            ! General data type conversion.
;    3          0003  0                     IDENT = '1-009'             ! File:LIBCVTDX.B32 Edit: FM1009
;    4          0004  0                     ) =
;    5          0005  1 BEGIN
;    6          0006  1 !
;    7          0007  1 !*****************************************************************************
;    8          0008  1 !*                                                                           *
;    9          0009  1 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                  *
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;   14          0014  1 !*  ONLY IN  ACCORDANCE WITH  THE  TERMS  OF  SUCH  LICENSE  AND WITH THE  *
;   15          0015  1 !*  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR  ANY  OTHER   *
;   16          0016  1 !*  COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY   *
;   17          0017  1 !*  OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY   *
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;   19          0019  1 !*                                                                           *
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;   21          0021  1 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT   *
;   22          0022  1 !*  CORPORATION.                                                              *
;   23          0023  1 !*                                                                           *
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;   25          0025  1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                   *
;   26          0026  1 !*                                                                           *
;   27          0027  1 !*                                                                           *
;   28          0028  1 !*****************************************************************************
;   29          0029  1 !
;   30          0030  1
;   31          0031  1 !++
;   32          0032  1 ! FACILITY:     General Utility Library
;   33          0033  1 !
;   34          0034  1 ! ABSTRACT:
;   35          0035  1 !
;   36          0036  1 !               This is the general data type conversion facility.
;   37          0037  1 !               Given two parameters, one the source descriptor,
;   38          0038  1 !               second the destination descriptor this routine
;   39          0039  1 !               will convert the source to destination.
;   40          0040  1 !               The permitted set of class, data type and combination
;   41          0041  1 !               of the two is a subset of the ones allowed in the
;   42          0042  1 !               calling standard.
;   43          0043  1 !
;   44          0044  1 !       The following is a general description of LIB$CVT_DX_DX.
;   45          0045  1 !
;   46          0046  1 !       This module is divided into two routines on the bases of functional
;   47          0047  1 !       modularity.  The front-end (LIB$$FIND_CVT_PATH), and back-end (LIB$CVT_DX_DX).
;   48          0048  1 !       The front-end frees the back-end of any error checking of invalid
;   49          0049  1 !       class or data type or combination of the two, or decisions that requires
;   50          0050  1 !       knowledge of which class or data type is being converted.  The only
;   51          0051  1 !       information that the back-end knows about is what the conversion path
;   52          0052  1 !       is, and where the intermediate data is.  The back-end then scales the
;   53          0053  1 !       intermediate data if necessary and converts it to the destination
;   54          0054  1 !       data type.  Note that even though a scale may not be necessary, the
;   55          0055  1 !       intermediate data is still converted to a second intermediate data type
;   56          0056  1 !       just to be consistent.
;   57          0057  1 !
```

```
;    58          0058  1 !     1.  Upon entry to LIB$CVT_DX_DX, LIB$$FIND_CVT_PATH routine is called.
;    59          0059  1 !         LIB$$FIND_CVT_PATH has 4 functions, they are :
;    60          0060  1 !               a. Find any errors concerning the class, and data type of
;    61          0061  1 !                  source and destination descriptor.  These errors can be
;    62          0062  1 !                  invalid class, invalid data type, or invalid combination
;    63          0063  1 !                  of a class and data type.  It can also tell which descriptors
;    64          0064  1 !                  are supported by the VAX-11 calling standard and which are
;    65          0065  1 !                  supported by this routine.
;    66          0066  1 !
;    67          0067  1 !               b. Figure out what the conversion path is, i.e. class,dtype --> class,dtype.
;    68          0068  1 !                  these paths are given names such as K_SMLINT_DEC, which reads
;    69          0069  1 !                  "from small integer to decimal" (categories are defined later).
;    70          0070  1 !
;    71          0071  1 !               c. Convert the source data to an intermediate data.  The strategy
;    72          0072  1 !                  used to select the appropriate intermediate data is explained later.
;    73          0073  1 !
;    74          0074  1 !               d. Put whatever information needed about the source and destination
;    75          0075  1 !                  descriptor in two structures passed by LIB$CVT_DX_DX.
;    76          0076  1 !                  These two structures SRC_INFO, and DST_INFO, contain the kind
;    77          0077  1 !                  of information that can only be visible when the class, and
;    78          0078  1 !                  data type of the source and destination descriptors are being
;    79          0079  1 !                  manipulated. These two structures can be expanded to contain
;    80          0080  1 !                  more information as new class, and data types may require it.
;    81          0081  1 !
;    82          0082  1 !
;    83          0083  1 !     2.  The following is an overview of the design of FIND_CVT_PATH :
;    84          0084  1 !         The problem to be solved is to recognize "valid" descriptors.
;    85          0085  1 !         A descriptor is valid if CLASS and DATA TYPE fields of the descriptor
;    86          0086  1 !         satisfy certain conditions.
;    87          0087  1 !         With this problem in mind we shall use some formal language theory
;    88          0088  1 !         and applications to solve it.
;    89          0089  1 !         Let us take a hypothetical problem that is very close but smaller in
;    90          0090  1 !         magnitude of the original problem and solve it.
;    91          0091  1 !         Suppose that the set of classes that we are interested about are
;    92          0092  1 !         CLASS = { c1, c2, c3 }, and the set of data types are
;    93          0093  1 !         DTYPE = { d1, d2, d3, d4 }.  Then suppose that only a certain combinations
;    94          0094  1 !         of CLASS and DTYPE are valid, and they are c1d3, c2d1, c3d2, c3d4.
;    95          0095  1 !         Hence language L(G) is consisted of sentences { c1d3, c2d1, c3d2, c3d4 }.
;    96          0096  1 !         First we need to come up with a grammar for the language L(G).
;    97          0097  1 !         Grammar for L(G) :
;    98          0098  1 !               Z  -->  <S1>d3 | <S2>d1 | <S3>d2 | <S3>d4
;    99          0099  1 !              S1 -->  c1
;   100          0100  1 !              S2 -->  c2
;   101          0101  1 !              S3 -->  c3
;   102          0102  1 !              S4 -->  c4
;   103          0103  1 !         A close look shows that this is a Chomsky type 3 regular grammar,
;   104          0104  1 !         because productions are all
;   105          0105  1 !               NON-TERMINAL --> terminal
;   106          0106  1 !                        or
;   107          0107  1 !               NON_TERMINAL --> <NON-TERMINAL>terminal
;   108          0108  1 !         This type of grammar has the nice feature that its sentential forms
;   109          0109  1 !         can be "accepted" by a finite state machine.
;   110          0110  1 !         The sentential forms of this grammar can also be accepted by a
;   111          0111  1 !         deterministic finite automaton because each right hand side has a
;   112          0112  1 !         unique left hand side.
;   113          0113  1 !         A DFA can be written to recognize sentences of this grammar and to
;   114          0114  1 !         reject sentences that are not in the language.
```

```
;  115     0115  1 !          The original problem is very similar to this hypothetical one, the
;  116     0116  1 !          only difference is that the set CLASS and DTYPE is larger.
;  117     0117  1 !          LIB$$FIND_CVT_PATH is just a DFA that accepts sentences of language L(V)
;  118     0118  1 !          when L(V) is pairs of VAX-11 DSC$K_CLASS_x DSC$K_DTYPE_y.  The grammar
;  119     0119  1 !          for L(V) is very similar to the grammar for L(G) above.
;  120     0120  1 !
;  121     0121  1 !      3.  In order to achieve the conflicting goals : fast,  not  large
;  122     0122  1 !          in  size,  expandable, no loss of precision as a result of intermediate
;  123     0123  1 !          values, there is a need for  a  compromise.  The strategy for categorizing
;  124     0124  1 !          the data types is based on three goals:  precision should not be lost
;  125     0125  1 !          as a result of converting to intermediate data types, data types of
;  126     0126  1 !          the same category should share similar internal representations, so
;  127     0127  1 !          they can be converted to and from each other easily, and seperate data
;  128     0128  1 !          types that the machine architecture has not yet provided machine
;  129     0129  1 !          instructions for.  The third goal provides easy and fast conversions for
;  130     0130  1 !          data types that there exists machine instructions for their conversions.
;  131     0131  1 !          The current categories were formulated by the following strategy:
;  132     0132  1 !          Divide  the  integers into two groups, small and large integers.
;  133     0133  1 !          Divide the floating numbers into two categories small and large
;  134     0134  1 !          floating. The small category will be the data types
;  135     0135  1 !          that machine instructions are available for their conversions.
;  136     0136  1 !          The large category consist of data types that there are no machine instructions for
;  137     0137  1 !          their conversions or the instructions must be emulated (LIB$EMULATE)
;  138     0138  1 !          for some VAX machines.
;  139     0139  1 !          This categorization will provide the callers that are attempting a 'simple' conversion
;  140     0140  1 !          a fast and smooth way.
;  141     0141  1 !          As a result we have the following :
;  142     0142  1 !          INTEGER       --> SMALL_INTEGER ! LARGE_INTEGER
;  143     0143  1 !          FLOAT         --> SMALL_FLOAT ! LARGE_FLOAT
;  144     0144  1 !          SMALL_INTEGER --> bu ! wu ! b ! w ! l              !Intermediate L
;  145     0145  1 !          LARGE_INTEGER --> lu ! q                           !Intermediate OU
;  146     0146  1 !          SMALL_FLOAT   --> f ! d                            !Intermediate D
;  147     0147  1 !          LARGE_FLOAT   --> g ! h                            !Intermediate H
;  148     0148  1 !          DEC           --> nu ! nl ! nlo ! nr ! nro ! nz !Intermediate P
;  149     0149  1 !          NBDS          --> nbds                             !Intermediate T
;  150     0150  1 !
;  151     0151  1 !      4.  Upon return from LIB$$FIND_CVT_PATH, the main routine then enters a
;  152     0152  1 !          CASE statement that selects the desired conversion.  This CASE
;  153     0153  1 !          is explained in detail in the first paragraph of the statement.
;  154     0154  1 !
;  155     0155  1 !
;  156     0156  1 ! ENVIRONMENT:  User mode - AST reentrant
;  157     0157  1 !
;  158     0158  1 ! AUTHOR:       Farokh Morshed          01-09-1981
;  159     0159  1 !
;  160     0160  1 ! MODIFIED BY:
;  161     0161  1 !
;  162     0162  1 ! 1-001 - Original.  FM1001     01-09-1981
;  163     0163  1 ! 1-002 - Fix the problem with (SMLINT, LRGINT, DEC) to NBDS having an explicit
;  164     0164  1 !         sign when plus should be implied.  Also [DEC_NBDS] scaled twice,
;  165     0165  1 !         changed it to scale only once.  FM 5-NOV-81.
;  166     0166  1 ! 1-003 - Fix the problem with [K_DEC_NBDS].  The length of CLASS_S_DESC was
;  167     0167  1 !         not being reset. FM
;  168     0168  1 ! 1-004 - Put in a new data type, DSC$K_DTYPE_VT.  Cleaned up data type B
;  169     0169  1 !         out of NBDS.  FM 1-DEC-81.
;  170     0170  1 ! 1-005 - Fix the bug where destination length is not picked up from DST_INFO.
;  171     0171  1 !         FM 2-DEC-81.
```

```
;  172          0172  1 ! 1-006 - Constants which are addressed by things like PACK_ZERO should be
;  173          0173  1 !           all longwords.
;  174          0174  1 ! 1-007 - LIB$_ROPRAND was left out of the exception handler.  FM 8-FEB-82.
;  175          0175  1 ! 1-008 - A couple of missing dots fixed -Q -> G and H.
;  176          0176  1 ! 1-009 - The following problems were fixed:    FM 1-Apr-83
;  177          0177  1 !                 The macro M_SCALE_OU_H did not grab the low order 8 bytes of
;  178          0178  1 !                 the H.
;  179          0179  1 !                 The macros M_SCALE_P_D and M_SCALE_P_H called the OTS$ routine
;  180          0180  1 !                 with a scale of the wrong sign.
;  181          0181  1 !                 The cases [K_SMLFLT_NBDS] and [K_LRGFLT_NBDS] did not pick up
;  182          0182  1 !                 the correct DIGITS_IN_FRACT when calling the FOR$CVT_x_TE.
;  183          0183  1 !                 The case [K_LRGFLT_NBDS] did not pick up the correct number of
;  184          0184  1 !                 digits in exponent when calling FOR$CVT_H_TE.
;  185          0185  1 !--
;  186          0186  1
```

```
;  188     0187  1 %SBTTL 'Declarations'
;  189     0188  1 !
;  190     0189  1 ! SWITCHES:
;  191     0190  1 !
;  192     0191  1
;  193     0192  1 SWITCHES ADDRESSING_MODE (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);
;  194     0193  1
;  195     0194  1 !
;  196     0195  1 ! LINKAGES:
;  197     0196  1 !
;  198     0197  1 !The reason for using PRESERVE is that it is of no cost, and the benefits may
;  199     0198  1 !be of value.  It can be taken out.
;  200     0199  1 !
;  201     0200  1
;  202     0201  1 LINKAGE
;  203     0202  1     JSB_R0 = JSB (REGISTER = 0) : PRESERVE (0, 1),
;  204     0203  1     JSB_R1 = JSB (REGISTER = 0, REGISTER = 1) : PRESERVE (0, 1),
;  205     0204  1     JSB_RETRO_R1 = JSB (REGISTER = 0, REGISTER = 1) : PRESERVE (1),
;  206     0205  1     JSB_R2 = JSB (REGISTER = 0, REGISTER = 1, REGISTER = 2) : PRESERVE (0, 1),
;  207     0206  1     JSB_R3 = JSB (REGISTER = 0, REGISTER = 1, REGISTER = 2, REGISTER = 3) : PRESERVE (0, 1),
;  208     0207  1     JSB_R6 = JSB (REGISTER = 0, REGISTER = 1, REGISTER = 2, REGISTER = 3, REGISTER = 4, REGISTER = 5) :
;  209     0208  1     PRESERVE (0, 1),
;  210     0209  1     SCOPYR_JSB_R6 = JSB (REGISTER = 0, REGISTER = 1, REGISTER = 2) : NOPRESERVE (2),
;  211     0210  1     SCOPY_JSB_R6 = JSB (REGISTER = 0, REGISTER = 1);
;  212     0211  1
;  213     0212  1 !
;  214     0213  1 ! TABLE OF CONTENTS:
;  215     0214  1 !
;  216     0215  1
;  217     0216  1 FORWARD ROUTINE
;  218     0217  1     LIB$CVT_DX_DX,                          ! The conversion routine.
;  219     0218  1     CVT_HANDLER;                            ! Error handler.
;  220     0219  1
;  221     0220  1                                             ! being done and report any
;  222     0221  1                                             ! unsupported fields in the descriptors.
;  223     0222  1 !
;  224     0223  1 ! INCLUDE FILES:
;  225     0224  1 !
;  226     0225  1
;  227     0226  1 LIBRARY 'RTLSTARLE';                        ! System symbols, from SYS$LIBRARY:STARLET.L32
;  228     0227  1
;  229     0228  1 REQUIRE 'RTLIN:RTLPSECT';                   ! Define PSECT declarations macros
;  230     0323  1
;  231     0324  1 !+
;  232     0325  1 ! EXTERNAL LITERAL
;  233     0326  1 !-
;  234     0327  1
;  235     0328  1 EXTERNAL LITERAL
;  236     0329  1 !+
;  237     0330  1 ! These are condition value.
;  238     0331  1 !-
;  239     0332  1     LIB$_INTOVF,                            ! Integer overflow.
;  240     0333  1     LIB$_FLTOVF,                            ! Floating overflow.
;  241     0334  1     LIB$_DECOVF,                            ! Decimal overflow.
;  242     0335  1     LIB$_FLTUND,                            ! Floating underflow.
;  243     0336  1     LIB$_ROPRAND,                           ! Reserved operand.
;  244     0337  1     LIB$_INVCVT,                            ! Invalid conversion.
```

```
;  245          0338  1      LIB$_INVDTYDSC,                         ! Invalid dtype in descriptor.
;  246          0339  1      LIB$_INVCLADSC,                         ! Invalid class in descriptor.
;  247          0340  1      LIB$_INVCLADTY,                         ! Invalid class dtype combination.
;  248          0341  1      LIB$_INVNBDS,                           ! Invalid numeric byte data string.
;  249          0342  1      LIB$_DESSTROVF,                         ! Destination string overflow.
;  250          0343  1      LIB$_OUTSTRTRU,                         ! Output string truncated (warning).
;  251          0344  1      LIB$_FATERRLIB,                         ! Fatal error in library.
;  252          0345  1      LIB$_STRTRU;                            ! String truncated.
;  253          0346  1
;  254          0347  1  !
;  255          0348  1  ! MACROS:
;  256          0349  1  !
;  257          0350  1  !<BLF/MACRO>
;  258          0351  1  !+
;  259          0352  1  ! These MACROs have been put in the module declartion part to make the routine cleaner,
;  260          0353  1  ! and easier to read.
;  261          0354  1  !-
;  262          0355  1
;  263          0356  1  MACRO
;  264          0357  1  !+
;  265          0358  1  ! These MACROs are defined for the purpose of clarity, less typing, and anticipation
;  266          0359  1  ! of future support of BUILTINs.
;  267          0360  1  !-
;  268        M 0361  1      CVTROUD =
;  269          0362  1          LIB$$CVT_CVTROUD_R1 %,
;  270        M 0363  1      CVTROUH =
;  271          0364  1          LIB$$CVT_CVTROUH_R1 %,
;  272        M 0365  1      CVTRDQ =
;  273          0366  1          LIB$$CVT_CVTRDQ_R1 %,
;  274        M 0367  1      CVTDH =
;  275          0368  1          LIB$$CVT_CVTDH_R1 %,
;  276        M 0369  1      CVTLH =
;  277          0370  1          LIB$$CVT_CVTLH_R1 %,
;  278        M 0371  1      CVTRHL =
;  279          0372  1          LIB$$CVT_CVTRHL_R1 %,
;  280        M 0373  1      CVTRHO =
;  281          0374  1          LIB$$CVT_CVTRHO_R1 %,
;  282        M 0375  1      CVTRHQ =
;  283          0376  1          LIB$$CVT_CVTRHQ_R1 %,
;  284        M 0377  1      CVTHF =
;  285          0378  1          LIB$$CVT_CVTHF_R1 %,
;  286        M 0379  1      CVTHD =
;  287          0380  1          LIB$$CVT_CVTHD_R1 %,
;  288        M 0381  1      CVTHG =
;  289          0382  1          LIB$$CVT_CVTHG_R1 %,
;  290        M 0383  1      CVTGH =
;  291          0384  1          LIB$$CVT_CVTGH_R1 %,
;  292        M 0385  1      CVTLB =
;  293          0386  1          LIB$$CVT_CVTLB_R1 %,
;  294        M 0387  1      CVTLW =
;  295          0388  1          LIB$$CVT_CVTLW_R1 %,
;  296        M 0389  1      MULH2 =
;  297          0390  1          LIB$$CVT_MULH2_R1 %,
;  298        M 0391  1      DIVH2 =
;  299          0392  1          LIB$$CVT_DIVH2_R1 %,
;  300        M 0393  1      MULD2 =
;  301          0394  1          LIB$$CVT_MULD2_R1 %,
```

```
;  302        M 0395  1     DIVD2 =
;  303          0396  1         LIB$$CVT_DIVD2_R1 %,
;  304        M 0397  1     CMPH =
;  305          0398  1         LIB$$CVT_CMPH_R1 %,
;  306        M 0399  1     ASHP =
;  307          0400  1         LIB$$CVT_ASHP_R1 %,
;  308          0401  1 !+
;  309          0402  1 ! These MACROs define parts of the intermediate data buffer.
;  310          0403  1 !-
;  311        M 0404  1     LONG_1 =
;  312          0405  1         0, 0, 32, 0 %,
;  313        M 0406  1     LONG_2 =
;  314          0407  1         4, 0, 32, 0 %,
;  315        M 0408  1     LONG_3 =
;  316          0409  1         8, 0, 32, 0 %,
;  317        M 0410  1     LONG_4 =
;  318          0411  1         12, 0, 32, 0 %,
;  319        M 0412  1     LONG_5 =
;  320          0413  1         16, 0, 32, 0 %,
;  321        M 0414  1     LONG_6 =
;  322          0415  1         20, 0, 32, 0 %,
;  323        M 0416  1     LONG_7 =
;  324          0417  1         24, 0, 32, 0 %,
;  325        M 0418  1     LONG_8 =
;  326          0419  1         28, 0, 32, 0 %,
;  327        M 0420  1     S_LONG_1 =
;  328          0421  1         0, 0, 32, 1 %,
;  329        M 0422  1     S_LONG_2 =
;  330          0423  1         4, 0, 32, 1 %,
;  331        M 0424  1     S_BYTE_1 =
;  332          0425  1         0, 0, 8, 1 %,
;  333        M 0426  1     BYTE_1 =
;  334          0427  1         0, 0, 8, 0 %,
;  335        M 0428  1     BYTE_2 =
;  336          0429  1         1, 0, 8, 0 %,
;  337        M 0430  1     S_WORD_1 =
;  338          0431  1         0, 0, 16, 1 %,
;  339        M 0432  1     WORD_1 =
;  340          0433  1         0, 0, 16, 0 %,
;  341        M 0434  1     WORD_2 =
;  342          0435  1         2, 0, 16, 0 %,
;  343        M 0436  1     NIBBLE_1 =
;  344          0437  1         0, 0, 4, 0 %,
;  345          0438  1 !+
;  346          0439  1 ! These MACROs scale the longword in INTMED_DATA buffer.
;  347          0440  1 !-
;  348        M 0441  1     M_SCALE_L_L =
;  349        M 0442  1
;  350        M 0443  1         WHILE .SCALE GTR 0 DO
;  351        M 0444  1             BEGIN
;  352        M 0445  1             INTMED_DATA [LONG_1] = .INTMED_DATA [S_LONG_1]*10;
;  353        M 0446  1             SCALE = .SCALE - 1;
;  354        M 0447  1             END;
;  355        M 0448  1
;  356        M 0449  1         WHILE .SCALE LSS 0 DO
;  357        M 0450  1             BEGIN
;  358        M 0451  1             INTMED_DATA [LONG_1] = .INTMED_DATA [S_LONG_1]/10;
```

```
;   359         M 0452  1              SCALE = .SCALE + 1;
;   360         M 0453  1              END
;   361         M 0454  1
;   362           0455  1      %,
;   363           0456  1  !+
;   364           0457  1  ! Convert L to OU and scale it.  INTMED_DATA is used for L and OU
;   365           0458  1  !-
;   366         M 0459  1      M_SCALE_L_OU =
;   367         M 0460  1
;   368         M 0461  1          IF .INTMED_DATA [S_LONG_1] LSS 0
;   369         M 0462  1          THEN
;   370         M 0463  1              BEGIN
;   371         M 0464  1              INTMED_DATA [LONG_1] = ABS (.INTMED_DATA [S_LONG_1]);
;   372         M 0465  1              SRC_INFO [S_SIGN] = 1;
;   373         M 0466  1              END;
;   374         M 0467  1
;   375         M 0468  1          WHILE .SCALE GTR 0 DO
;   376         M 0469  1              BEGIN
;   377         M 0470  1              LIB$$CVT_SCALE_OU_UP_BY_10_R1 (INTMED_DATA);
;   378         M 0471  1              SCALE = .SCALE - 1;
;   379         M 0472  1              END;
;   380         M 0473  1
;   381         M 0474  1          WHILE .SCALE LSS 0 DO
;   382         M 0475  1              BEGIN
;   383         M 0476  1              LIB$$CVT_SCALE_OU_DOWN_BY_10_R1 (INTMED_DATA);
;   384         M 0477  1              SCALE = .SCALE + 1;
;   385         M 0478  1              END
;   386         M 0479  1
;   387           0480  1      %,
;   388           0481  1  !+
;   389           0482  1  ! Convert L to D, and scale it.  INTMED_DATA buffer is used for L and D.
;   390           0483  1  !-
;   391         M 0484  1      M_SCALE_L_D =
;   392         M 0485  1          CVTLD (INTMED_DATA, INTMED_DATA);
;   393         M 0486  1
;   394         M 0487  1          WHILE .SCALE GTR 0 DO
;   395         M 0488  1              BEGIN
;   396         M 0489  1              MULD2 (UPLIT (%D'10'), INTMED_DATA);
;   397         M 0490  1              SCALE = .SCALE - 1;
;   398         M 0491  1              END;
;   399         M 0492  1
;   400         M 0493  1          WHILE .SCALE LSS 0 DO
;   401         M 0494  1              BEGIN
;   402         M 0495  1              DIVD2 (UPLIT (%D'10'), INTMED_DATA);
;   403         M 0496  1              SCALE = .SCALE + 1;
;   404         M 0497  1              END
;   405         M 0498  1
;   406           0499  1      %,
;   407           0500  1  !+
;   408           0501  1  ! Convert L to P, and scale it.  INTMED_DATA is the buffer for L and P.
;   409           0502  1  !-
;   410         M 0503  1      M_SCALE_L_P =
;   411         M 0504  1
;   412         M 0505  1          IF .INTMED_DATA [S_LONG_1] LSS 0 THEN SRC_INFO [S_SIGN] = 1;
;   413         M 0506  1
;   414         M 0507  1          NO_DIGITS = 31;
;   415         M 0508  1          CVTLP (INTMED_DATA, NO_DIGITS, INTMED_DATA);
```

```
;  416        M 0509  1
;  417        M 0510  1          IF .SCALE NEQ 0
;  418        M 0511  1          THEN
;  419        M 0512  1              BEGIN
;  420        M 0513  1              MOVP (NO_DIGITS, INTMED_DATA, TEMP_BUF1);
;  421        M 0514  1              ASHP (SCALE, NO_DIGITS, TEMP_BUF1, %REF (5), NO_DIGITS, INTMED_DATA);
;  422        M 0515  1              END
;  423        M 0516  1
;  424          0517  1      %,
;  425          0518  1  !+
;  426          0519  1  ! Scale the OU in INTMED_DATA buffer.
;  427          0520  1  !-
;  428        M 0521  1      M_SCALE_OU_OU =
;  429        M 0522  1
;  430        M 0523  1          WHILE .SCALE GTR 0 DO
;  431        M 0524  1              BEGIN
;  432        M 0525  1              LIB$$CVT_SCALE_OU_UP_BY_10_R1 (INTMED_DATA);
;  433        M 0526  1              SCALE = .SCALE - 1;
;  434        M 0527  1              END;
;  435        M 0528  1
;  436        M 0529  1          WHILE .SCALE LSS 0 DO
;  437        M 0530  1              BEGIN
;  438        M 0531  1              LIB$$CVT_SCALE_OU_DOWN_BY_10_R1 (INTMED_DATA);
;  439        M 0532  1              SCALE = .SCALE + 1;
;  440        M 0533  1              END
;  441        M 0534  1
;  442          0535  1      %,
;  443          0536  1  !+
;  444          0537  1  ! Convert OU to D, and scale it.  INTMED_DATA is used for OU and D.
;  445          0538  1  !-
;  446        M 0539  1      M_SCALE_OU_D =
;  447        M 0540  1          CVTROUD (INTMED_DATA, TEMP_BUF1);
;  448        M 0541  1          CH$MOVE (8, TEMP_BUF1, INTMED_DATA);
;  449        M 0542  1
;  450        M 0543  1          WHILE .SCALE GTR 0 DO
;  451        M 0544  1              BEGIN
;  452        M 0545  1              MULD2 (UPLIT (%D'10'), INTMED_DATA);
;  453        M 0546  1              SCALE = .SCALE - 1;
;  454        M 0547  1              END;
;  455        M 0548  1
;  456        M 0549  1          WHILE .SCALE LSS 0 DO
;  457        M 0550  1              BEGIN
;  458        M 0551  1              DIVD2 (UPLIT (%D'10'), INTMED_DATA);
;  459        M 0552  1              SCALE = .SCALE + 1;
;  460        M 0553  1              END
;  461        M 0554  1
;  462          0555  1      %,
;  463          0556  1  !+
;  464          0557  1  ! Convert OU to H, and scale it.  INTMED_DATA is used for OU and H.
;  465          0558  1  !-
;  466        M 0559  1      M_SCALE_OU_H =
;  467        M 0560  1          CVTROUH (INTMED_DATA, TEMP_BUF1);
;  468        M 0561  1          CH$MOVE (16, TEMP_BUF1, INTMED_DATA);
;  469        M 0562  1
;  470        M 0563  1          WHILE .SCALE GTR 0 DO
;  471        M 0564  1              BEGIN
;  472        M 0565  1              MULH2 (UPLIT (%H'10'), INTMED_DATA);
```

```
;  473        M 0566  1              SCALE = .SCALE - 1;
;  474        M 0567  1              END;
;  475        M 0568  1
;  476        M 0569  1          WHILE .SCALE LSS 0 DO
;  477        M 0570  1              BEGIN
;  478        M 0571  1              DIVH2 (UPLIT (%H'10'), INTMED_DATA);
;  479        M 0572  1              SCALE = .SCALE + 1;
;  480        M 0573  1              END
;  481        M 0574  1
;  482          0575  1      %,
;  483          0576  1  !+
;  484          0577  1  ! Convert L to H, and scale it.  INTMED_DATA is used for L and H.
;  485          0578  1  !-
;  486        M 0579  1      M_SCALE_L_H =
;  487        M 0580  1          CVTLH (INTMED_DATA, INTMED_DATA);
;  488        M 0581  1
;  489        M 0582  1          WHILE .SCALE GTR 0 DO
;  490        M 0583  1              BEGIN
;  491        M 0584  1              MULH2 (UPLIT (%H'10'), INTMED_DATA);
;  492        M 0585  1              SCALE = .SCALE - 1;
;  493        M 0586  1              END;
;  494        M 0587  1
;  495        M 0588  1          WHILE .SCALE LSS 0 DO
;  496        M 0589  1              BEGIN
;  497        M 0590  1              DIVH2 (UPLIT (%H'10'), INTMED_DATA);
;  498        M 0591  1              SCALE = .SCALE + 1;
;  499        M 0592  1              END
;  500        M 0593  1
;  501          0594  1      %,
;  502          0595  1  !+
;  503          0596  1  ! Scale D in INTMED_DATA.
;  504          0597  1  !-
;  505        M 0598  1      M_SCALE_D_D =
;  506        M 0599  1
;  507        M 0600  1          WHILE .SCALE GTR 0 DO
;  508        M 0601  1              BEGIN
;  509        M 0602  1              MULD2 (UPLIT (%D'10'), INTMED_DATA);
;  510        M 0603  1              SCALE = .SCALE - 1;
;  511        M 0604  1              END;
;  512        M 0605  1
;  513        M 0606  1          WHILE .SCALE LSS 0 DO
;  514        M 0607  1              BEGIN
;  515        M 0608  1              DIVD2 (UPLIT (%D'10'), INTMED_DATA);
;  516        M 0609  1              SCALE = .SCALE + 1;
;  517        M 0610  1              END
;  518        M 0611  1
;  519          0612  1      %,
;  520          0613  1  !+
;  521          0614  1  ! Convert D to H, and scale it.  INTMED_DATA is used for D and H.
;  522          0615  1  !-
;  523        M 0616  1      M_SCALE_D_H =
;  524        M 0617  1          CVTDH (INTMED_DATA, INTMED_DATA);
;  525        M 0618  1
;  526        M 0619  1          WHILE .SCALE GTR 0 DO
;  527        M 0620  1              BEGIN
;  528        M 0621  1              MULH2 (UPLIT (%H'10'), INTMED_DATA);
;  529        M 0622  1              SCALE = .SCALE - 1;
```

```
;   530        M 0623  1              END;
;   531        M 0624  1
;   532        M 0625  1          WHILE .SCALE LSS 0 DO
;   533        M 0626  1              BEGIN
;   534        M 0627  1              DIVH2 (UPLIT (%H'10'), INTMED_DATA);
;   535        M 0628  1              SCALE = .SCALE + 1;
;   536        M 0629  1              END
;   537        M 0630  1
;   538          0631  1      %,
;   539          0632  1  !+
;   540          0633  1  ! Scale H in INTMED_DATA.
;   541          0634  1  !-
;   542        M 0635  1      M_SCALE_H_H =
;   543        M 0636  1
;   544        M 0637  1          WHILE .SCALE GTR 0 DO
;   545        M 0638  1              BEGIN
;   546        M 0639  1              MULH2 (UPLIT (%H'10'), INTMED_DATA);
;   547        M 0640  1              SCALE = .SCALE - 1;
;   548        M 0641  1              END;
;   549        M 0642  1
;   550        M 0643  1          WHILE .SCALE LSS 0 DO
;   551        M 0644  1              BEGIN
;   552        M 0645  1              DIVH2 (UPLIT (%H'10'), INTMED_DATA);
;   553        M 0646  1              SCALE = .SCALE + 1;
;   554        M 0647  1              END
;   555        M 0648  1
;   556          0649  1      %,
;   557          0650  1  !+
;   558          0651  1  ! Scale P in INTMED_DATA
;   559          0652  1  !-
;   560        M 0653  1      M_SCALE_P_P =
;   561        M 0654  1          NO_DIGITS = .SRC_INFO [S_LEN];
;   562        M 0655  1
;   563        M 0656  1          IF (CMPP (NO_DIGITS, INTMED_DATA, %REF (1), .PACK_ZERO) LSS 0) THEN SRC_INFO [S_SIGN] = 1;
;   564        M 0657  1
;   565        M 0658  1          IF .SCALE NEQ 0
;   566        M 0659  1          THEN
;   567        M 0660  1              BEGIN
;   568        M 0661  1              MOVP (NO_DIGITS, INTMED_DATA, TEMP_BUF1);
;   569        M 0662  1              ASHP (SCALE, NO_DIGITS, TEMP_BUF1, %REF (5), NO_DIGITS, INTMED_DATA);
;   570        M 0663  1              END
;   571        M 0664  1
;   572          0665  1      %,
;   573          0666  1  !+
;   574          0667  1  ! Convert P to OU, and scale it.  INTMED_DATA is used for P and OU.
;   575          0668  1  !-
;   576        M 0669  1      M_SCALE_P_OU =
;   577        M 0670  1          NO_DIGITS = .SRC_INFO [S_LEN];
;   578        M 0671  1          CVTPS (NO_DIGITS, INTMED_DATA, NO_DIGITS, TEMP_BUF1);
;   579        M 0672  1          CLASS_S_DESC [DSC$W_LENGTH] = .NO_DIGITS + 1;
;   580        M 0673  1          CLASS_S_DESC [DSC$A_POINTER] = TEMP_BUF1;
;   581        M 0674  1          OTS$CVT_T_H (CLASS_S_DESC, TEMP_BUF2);
;   582        M 0675  1
;   583        M 0676  1          IF .TEMP_BUF2 [0, 15, 1, 0]
;   584        M 0677  1          THEN
;   585        M 0678  1              BEGIN
;   586        M 0679  1              TEMP_BUF2 [0, 15, 1, 0] = 0;
```

```
;  587        M 0680  1              SRC_INFO [S_SIGN] = 1;
;  588        M 0681  1              END;
;  589        M 0682  1
;  590        M 0683  1          CVTRHO (TEMP_BUF2, INTMED_DATA);
;  591        M 0684  1
;  592        M 0685  1          WHILE .SCALE GTR 0 DO
;  593        M 0686  1              BEGIN
;  594        M 0687  1              LIB$$CVT_SCALE_OU_UP_BY_10_R1 (INTMED_DATA);
;  595        M 0688  1              SCALE = .SCALE - 1;
;  596        M 0689  1              END;
;  597        M 0690  1
;  598        M 0691  1          WHILE .SCALE LSS 0 DO
;  599        M 0692  1              BEGIN
;  600        M 0693  1              LIB$$CVT_SCALE_OU_DOWN_BY_10_R1 (INTMED_DATA);
;  601        M 0694  1              SCALE = .SCALE + 1;
;  602        M 0695  1              END
;  603        M 0696  1
;  604           0697  1      %,
;  605           0698  1  !+
;  606           0699  1  ! Convert P to D, and scale it.  INTMED_DATA is used for P and D.
;  607           0700  1  !-
;  608        M 0701  1      M_SCALE_P_D =
;  609        M 0702  1          NO_DIGITS = .SRC_INFO [S_LEN];
;  610        M 0703  1          CVTPS (NO_DIGITS, INTMED_DATA, NO_DIGITS, TEMP_BUF1);
;  611        M 0704  1          CLASS_S_DESC [DSC$W_LENGTH] = .NO_DIGITS + 1;
;  612        M 0705  1          CLASS_S_DESC [DSC$A_POINTER] = TEMP_BUF1;
;  613        M 0706  1          STATUS = OTS$CVT_T_D (CLASS_S_DESC, INTMED_DATA, 0, -.SCALE, (K_ENB_UNDERFLOW OR K_ENB_SCALE));
;  614        M 0707  1
;  615        M 0708  1          IF NOT .STATUS
;  616        M 0709  1          THEN
;  617        M 0710  1              RETURN (
;  618        M 0711  1                  BEGIN
;  619        M 0712  1
;  620        M 0713  1                  IF .SCALE LSS 0 THEN LIB$_FLTUND ELSE LIB$_FLTOVF
;  621        M 0714  1
;  622        M 0715  1                  END
;  623           0716  1                  ) %,
;  624           0717  1
;  625           0718  1  !+
;  626           0719  1  ! Convert P to H, and scale it.  INTMED_DATA is used for P and H.
;  627           0720  1  !-
;  628        M 0721  1      M_SCALE_P_H =
;  629        M 0722  1          NO_DIGITS = .SRC_INFO [S_LEN];
;  630        M 0723  1          CVTPS (NO_DIGITS, INTMED_DATA, NO_DIGITS, TEMP_BUF1);
;  631        M 0724  1          CLASS_S_DESC [DSC$W_LENGTH] = .NO_DIGITS + 1;
;  632        M 0725  1          CLASS_S_DESC [DSC$A_POINTER] = TEMP_BUF1;
;  633        M 0726  1          STATUS = OTS$CVT_T_H (CLASS_S_DESC, INTMED_DATA, 0, -.SCALE, (K_ENB_UNDERFLOW OR K_ENB_SCALE));
;  634        M 0727  1
;  635        M 0728  1          IF NOT .STATUS
;  636        M 0729  1          THEN
;  637        M 0730  1              RETURN (
;  638        M 0731  1                  BEGIN
;  639        M 0732  1
;  640        M 0733  1                  IF .SCALE LSS 0 THEN LIB$_FLTUND ELSE LIB$_FLTOVF
;  641        M 0734  1
;  642        M 0735  1                  END
;  643           0736  1                  ) %;
```

```
;  644     0737  1
;  645     0738  1 !+
;  646     0739  1 ! PSECTS
;  647     0740  1 !-
;  648     0741  1 DECLARE_PSECTS (LIB);                   ! Declare PSECTs for LIB$ facility
;  649     0742  1 !+
;  650     0743  1 ! OWN STORAGE:
;  651     0744  1 !
;  652     0745  1 !       NONE
;  653     0746  1 !-
```

```
;  655          0747  1 %SBTTL 'The conversion routine, UPI level'
;  656          0748  1
;  657          0749  1 GLOBAL ROUTINE LIB$CVT_DX_DX (                  ! The UPI level of the conversion routine.
;  658          0750  1         SOURCE,                                 ! Source descriptor.
;  659          0751  1         DESTINATION,                            ! Destination descriptor.
;  660          0752  1         OUTLEN)                                 ! An output optional parameter.
;  661          0753  1     =
;  662          0754  2     BEGIN
;  663          0755  2
;  664          0756  2 !++
;  665          0757  2 ! FUNCTIONAL DESCRIPTION:
;  666          0758  2 !
;  667          0759  2 !       Upon entry FIND_CVT_PATH is called to identify which conversion is to be
;  668          0760  2 !       done, i.e. from which CLASS, DTYPE combination to which CLASS, DTYPE
;  669          0761  2 !       combination the conversion is being done.
;  670          0762  2 !       Also, FIND_CVT_PATH will do all the work of identifying the errors such
;  671          0763  2 !       as unsupported class, data type, or combinations.
;  672          0764  2 !       This routine is just a tree of CASE statements that the first
;  673          0765  2 !       level CASE statement labels have been identified by the FIND_CVT_PATH
;  674          0766  2 !       routine.
;  675          0767  2 !
;  676          0768  2 !
;  677          0769  2 ! CALLING SEQUENCE:
;  678          0770  2 !
;  679          0771  2 !       ret_status.wlc.v = LIB$CVT_DX_DX ( SOURCE.rx.dx, DESTINATION.wx.dx
;  680          0772  2 !                                          <OUTLEN.wwu.r> )
;  681          0773  2 !
;  682          0774  2 ! FORMAL PARAMETERS:
;  683          0775  2 !
;  684          0776  2 !       SOURCE                  Address of source descriptor.
;  685          0777  2 !       DESTINATION             Address of destination descriptor.
;  686          0778  2 !       OUTLEN                  Output length.  Optional parameter for this
;  687          0779  2 !                               routine to put the length of actual data (without padding) in.
;  688          0780  2 !                               This is used only when destination is of data
;  689          0781  2 !                               type T.
;  690          0782  2 !
;  691          0783  2 ! IMPLICIT INPUTS:
;  692          0784  2 !
;  693          0785  2 !       NONE
;  694          0786  2 !
;  695          0787  2 ! IMPLICIT OUTPUTS:
;  696          0788  2 !
;  697          0789  2 !       NONE
;  698          0790  2 !
;  699          0791  2 ! COMPLETION STATUS: (or ROUTINE VALUE:)
;  700          0792  2 !
;  701          0793  2 !       SS$_NORMAL      Normal successful completion
;  702          0794  2 !       LIB$_INVCVT     Invalid conversion
;  703          0795  2 !       LIB$_INTOVF     Integer overflow error
;  704          0796  2 !       LIB$_FLTOVF     Floating overflow
;  705          0797  2 !       LIB$_DECOVF     Packed decimal overflow
;  706          0798  2 !       LIB$_FLTUND     Floating underflow
;  707          0799  2 !       LIB$_ROPRAND    Reserved operand
;  708          0800  2 !       LIB$_INVNBDS    Invalid Numeric Byte Data String
;  709          0801  2 !       LIB$_INVCLADSC  Invalid class in descriptor
;  710          0802  2 !       LIB$_INVDTYDSC  Invalid data type in descriptor
;  711          0803  2 !       LIB$_INVCLADTY  Invalid class data type combination in descriptor
```

```
;   712          0804  2 !       LIB$_DESSTROVF  Output conversion error
;   713          0805  2 !       LIB$_OUTSTRTRU  Output string truncated
;   714          0806  2 !
;   715          0807  2 ! SIDE EFFECTS
;   716          0808  2 !       Every routine in this module turns on every arithmetic trap in PSW.
;   717          0809  2 !       Caller must have LIB$EMULATE as handler
;   718          0810  2 !       if any G, or H conversions are asked for.
;   719          0811  2 !
;   720          0812  2 !+
;   721          0813  2 ! LITERAL
;   722          0814  2 !-
;   723          0815  2
;   724          0816  2     LITERAL
;   725          0817  2 !+
;   726          0818  2 !Status returned by FIND_CVT_PATH.
;   727          0819  2 !-
;   728          0820  2         K_UNSCLAROU = -1,                       ! Unsupported CLASS by routine.
;   729          0821  2         K_UNSDTYROU = -2,                       ! Unsupported DATA TYPE by routine.
;   730          0822  2         K_UNSDESROU = -3,                       ! Unsupported descriptor by routine.
;   731          0823  2         K_UNSDESSTA = -4,                       ! Unsupported descriptor by standard.
;   732          0824  2         K_UNSCLASTA = -5,                       ! Unsupported CLASS by standard.
;   733          0825  2         K_UNSDTYSTA = -6,                       ! Unsupported DTYPE by standard
;   734          0826  2         K_INVNBDS = -7,                         ! Invalid NBDS
;   735          0827  2                                                 ! because either array size is larger
;   736          0828  2                                                 ! than a WU or it is not a one
;   737          0829  2                                                 ! dimensional array.
;   738          0830  2         K_SUPPORTED = 1,                        ! This descriptor is supported, and valid.
;   739          0831  2 !+
;   740          0832  2 !Literals used by all routines of this module.
;   741          0833  2 !-
;   742          0834  2         K_INTMED_DATA_LENGTH = 32,              ! Intermediate data buffer length
;   743          0835  2         K_LRGST_WU = 65535,
;   744          0836  2         K_LRGST_LU = 4294967295,                ! Largest unsigned longword.
;   745          0837  2         K_LRGST_NEG_L = -2147483648,            ! Largest negative longword.
;   746          0838  2 !+
;   747          0839  2 ! These are the values for the index to the main CASE statement.
;   748          0840  2 !-
;   749          0841  2         K_SMLINT_SMLINT = 1,
;   750          0842  2         K_SMLINT_LRGINT = 2,
;   751          0843  2         K_SMLINT_SMLFLT = 3,
;   752          0844  2         K_SMLINT_LRGFLT = 4,
;   753          0845  2         K_SMLINT_DEC = 5,
;   754          0846  2         K_SMLINT_NBDS = 6,
;   755          0847  2         K_LRGINT_SMLINT = 7,
;   756          0848  2         K_LRGINT_LRGINT = 8,
;   757          0849  2         K_LRGINT_SMLFLT = 9,
;   758          0850  2         K_LRGINT_LRGFLT = 10,
;   759          0851  2         K_LRGINT_DEC = 11,
;   760          0852  2         K_LRGINT_NBDS = 12,
;   761          0853  2         K_SMLFLT_SMLINT = 13,
;   762          0854  2         K_SMLFLT_LRGINT = 14,
;   763          0855  2         K_SMLFLT_SMLFLT = 15,
;   764          0856  2         K_SMLFLT_LRGFLT = 16,
;   765          0857  2         K_SMLFLT_DEC = 17,
;   766          0858  2         K_SMLFLT_NBDS = 18,
;   767          0859  2         K_LRGFLT_SMLINT = 19,
;   768          0860  2         K_LRGFLT_LRGINT = 20,
```

```
;  769          0861  2          K_LRGFLT_SMLFLT = 21,
;  770          0862  2          K_LRGFLT_LRGFLT = 22,
;  771          0863  2          K_LRGFLT_DEC = 23,
;  772          0864  2          K_LRGFLT_NBDS = 24,
;  773          0865  2          K_DEC_SMLINT = 25,
;  774          0866  2          K_DEC_LRGINT = 26,
;  775          0867  2          K_DEC_SMLFLT = 27,
;  776          0868  2          K_DEC_LRGFLT = 28,
;  777          0869  2          K_DEC_DEC = 29,
;  778          0870  2          K_DEC_NBDS = 30,
;  779          0871  2          K_NBDS_SMLINT = 31,
;  780          0872  2          K_NBDS_LRGINT = 32,
;  781          0873  2          K_NBDS_SMLFLT = 33,
;  782          0874  2          K_NBDS_LRGFLT = 34,
;  783          0875  2          K_NBDS_DEC = 35,
;  784          0876  2          K_NBDS_NBDS = 36,
;  785          0877  2  !+
;  786          0878  2  ! Length of these records in bytes.
;  787          0879  2  !-
;  788          0880  2          K_SRC_INFO_LENGTH = 8,
;  789          0881  2          K_DST_INFO_LENGTH = 8,
;  790          0882  2          K_TEMP_BUF_LENGTH = 50,
;  791          0883  2  !+
;  792          0884  2  ! Limits of numbers.
;  793          0885  2  !-
;  794          0886  2          K_LRGST_NEG_B = -128,
;  795          0887  2          K_LRGST_NEG_W = -32768,
;  796          0888  2          K_LRGST_B = 127,
;  797          0889  2          K_LRGST_W = 32767,
;  798          0890  2          K_LRGST_BU = 255,
;  799          0891  2          K_LRGST_L = 2147483647,
;  800          0892  2          K_PACK_DU_LEN = 10,
;  801          0893  2  !+
;  802          0894  2  ! Define bit patterns for calling OTS conversion routines.
;  803          0895  2  !-
;  804          0896  2          K_IGN_BLKS = 1,
;  805          0897  2          K_ENB_UNDERFLOW = 4,
;  806          0898  2          K_IGN_TABS = 16,
;  807          0899  2          K_ENB_SCALE = 64,
;  808          0900  2  !+
;  809          0901  2  ! Bit map to use to set all arithmetic traps
;  810          0902  2  !-
;  811          0903  2          K_SET_ARITHMETIC_TRAP = 32 + 64 + 128;
;  812          0904  2
;  813          0905  2  !
;  814          0906  2  ! BUILTIN
;  815          0907  2  !
;  816          0908  2
;  817          0909  2      BUILTIN
;  818          0910  2          CVTTP,
;  819          0911  2          CVTSP,
;  820          0912  2          CVTLF,
;  821          0913  2          CVTLD,
;  822          0914  2          CVTPT,
;  823          0915  2          CVTPS,
;  824          0916  2          CMPP,
;  825          0917  2          CMPD,
```

```
;   826     0918  2          CVTRDL,
;   827     0919  2          CVTRFL,
;   828     0920  2          CVTDF,
;   829     0921  2          CVTPL,
;   830     0922  2          CVTLP,
;   831     0923  2          BICPSW,
;   832     0924  2          BISPSW,
;   833     0925  2          TESTBITSC,
;   834     0926  2          MOVP,
;   835     0927  2          ACTUALCOUNT,
;   836     0928  2          ACTUALPARAMETER;
;   837     0929  2
;   838     0930  2  !+
;   839     0931  2  ! EXTERNAL REFERENCES:
;   840     0932  2  !-
;   841     0933  2
;   842     0934  2      EXTERNAL ROUTINE
;   843     0935  2          LIB$$FIND_CVT_PATH,
;   844     0936  2          LIB$STOP : NOVALUE,
;   845     0937  2          OTS$CVT_L_TI,
;   846     0938  2          OTS$CVT_T_D,
;   847     0939  2          OTS$CVT_T_G,
;   848     0940  2          OTS$CVT_T_H,
;   849     0941  2          FOR$CVT_D_TE,
;   850     0942  2          FOR$CVT_D_TF,
;   851     0943  2          FOR$CVT_H_TE,
;   852     0944  2          FOR$CVT_H_TF,
;   853     0945  2          LIB$SCOPY_R_DX6 : SCOPYR_JSB_R6,
;   854     0946  2          LIB$SCOPY_DXDX6 : SCOPY_JSB_R6,
;   855     0947  2          MTH$CVT_D_G : NOVALUE,
;   856     0948  2          CVTLB : JSB_R1 NOVALUE,
;   857     0949  2          CVTLW : JSB_R1 NOVALUE,
;   858     0950  2          CVTLH : JSB_R1 NOVALUE,
;   859     0951  2          CVTRHO : JSB_R1 NOVALUE,
;   860     0952  2          MULH2 : JSB_R1 NOVALUE,
;   861     0953  2          DIVH2 : JSB_R1 NOVALUE,
;   862     0954  2          CVTROUD : JSB_R1 NOVALUE,
;   863     0955  2          CVTROUH : JSB_R1 NOVALUE,
;   864     0956  2          CVTRDQ : JSB_R1 NOVALUE,
;   865     0957  2          CVTDH : JSB_R1 NOVALUE,
;   866     0958  2          CVTRHL : JSB_R1 NOVALUE,
;   867     0959  2          CVTRHQ : JSB_R1 NOVALUE,
;   868     0960  2          CVTHF : JSB_R1 NOVALUE,
;   869     0961  2          CVTHD : JSB_R1 NOVALUE,
;   870     0962  2          CVTHG : JSB_R1 NOVALUE,
;   871     0963  2          CVTGH : JSB_R1 NOVALUE,
;   872     0964  2          CMPH : JSB_RETRO_R1,
;   873     0965  2          LIB$$CVT_SCALE_OU_UP_BY_10_R1 : JSB_R0 NOVALUE,
;   874     0966  2          LIB$$CVT_SCALE_OU_DOWN_BY_10_R1 : JSB_R0 NOVALUE,
;   875     0967  2          MULD2 : JSB_R1 NOVALUE,
;   876     0968  2          DIVD2 : JSB_R1 NOVALUE,
;   877     0969  2          ASHP : JSB_R6 NOVALUE;
;   878     0970  2
;   879     0971  2  !+
;   880     0972  2  ! These are the translation tables used when translating from or to packed decimal.
;   881     0973  2  !-
;   882     0974  2
```

```
;   883          0975  2      EXTERNAL
;   884          0976  2          LIB$AB_CVTTP_U,
;   885          0977  2          LIB$AB_CVT_O_U,
;   886          0978  2          LIB$AB_CVTTP_O,
;   887          0979  2          LIB$AB_CVT_U_O,
;   888          0980  2          LIB$AB_CVTPT_U,
;   889          0981  2          LIB$AB_CVTPT_O,
;   890          0982  2          LIB$AB_CVTPT_Z,
;   891          0983  2          LIB$AB_CVTTP_Z;
;   892          0984  2
;   893          0985  2  !+
;   894          0986  2  ! FIELD DECLARATIONS
;   895          0987  2  !-
;   896          0988  2
;   897          0989  2      FIELD
;   898          0990  2          SRC_INFO_FIELDS =
;   899          0991  2              SET
;   900          0992  2              S_SCALE = [0, 0, 8, 1],
;   901          0993  2              S_POINTER = [1, 0, 32, 0],
;   902          0994  2              S_LEN = [5, 0, 16, 0],
;   903          0995  2              S_SIGN = [7, 0, 1, 0]
;   904          0996  2              TES;
;   905          0997  2
;   906          0998  2      FIELD
;   907          0999  2          DST_INFO_FIELDS =
;   908          1000  2              SET
;   909          1001  2              D_SCALE = [0, 0, 8, 1],
;   910          1002  2              D_LEN = [5, 0, 16, 0]
;   911          1003  2              TES;
;   912          1004  2
;   913          1005  2      LOCAL
;   914          1006  2  !+
;   915          1007  2  !Source information.  LIB$$FIND_CVT_PATH puts source information in this structure.
;   916          1008  2  !-
;   917          1009  2          SRC_INFO : BLOCK [K_SRC_INFO_LENGTH, BYTE] FIELD (SRC_INFO_FIELDS),
;   918          1010  2  !+
;   919          1011  2  !Destination information.  LIB$$FIND_CVT_PATH puts destination information in this structure.
;   920          1012  2  !-
;   921          1013  2          DST_INFO : BLOCK [K_DST_INFO_LENGTH, BYTE] FIELD (DST_INFO_FIELDS),
;   922          1014  2  !+
;   923          1015  2  !Intermediate data.  LIB$$FIND_CVT_PATH puts the intermediate data in this buffer.
;   924          1016  2  !-
;   925          1017  2          INTMED_DATA : BLOCK [K_INTMED_DATA_LENGTH, BYTE],
;   926          1018  2  !+
;   927          1019  2  !Temporary buffer 1.  Used by LIB$CVT_DX_DX to keep temporary data.
;   928          1020  2  !-
;   929          1021  2          TEMP_BUF1 : BLOCK [K_TEMP_BUF_LENGTH, BYTE],
;   930          1022  2  !+
;   931          1023  2  !Temporary buffer 2.  Used by LIB$CVT_DX_DX to keep temporary data.
;   932          1024  2  !-
;   933          1025  2          TEMP_BUF2 : BLOCK [K_TEMP_BUF_LENGTH, BYTE],
;   934          1026  2  !+
;   935          1027  2  !Class S descriptor.  A class S descriptor for any use.
;   936          1028  2  !-
;   937          1029  2          CLASS_S_DESC : BLOCK [8, BYTE],
;   938          1030  2  !+
;   939          1031  2  !Final length.  Length of actual data in TEMP_BUF2.
```

```
;  940          1032  2 !-
;  941          1033  2         FINAL_LEN,
;  942          1034  2 !+
;  943          1035  2 !Convert path.  The convert path calculated by LIB$$FIND_CVT_PATH.
;  944          1036  2 !-
;  945          1037  2         CVT_PATH,
;  946          1038  2 !+
;  947          1039  2 !Number of digits.  Number of digits of a decimal number.
;  948          1040  2 !-
;  949          1041  2         NO_DIGITS,
;  950          1042  2 !+
;  951          1043  2 !Digits in fraction.  Used for calling OTS$CVT_x_TE.
;  952          1044  2 !-
;  953          1045  2         DIGITS_IN_FRACT,
;  954          1046  2 !+
;  955          1047  2 !Various status returned by routines.
;  956          1048  2 !-
;  957          1049  2         STATUS,
;  958          1050  2 !+
;  959          1051  2 !largest LU in a packed decimal.
;  960          1052  2 !-
;  961          1053  2         LRGST_P_LU,
;  962          1054  2 !+
;  963          1055  2 !Largest LU in a double floating.
;  964          1056  2 !-
;  965          1057  2         LRGST_D_LU,
;  966          1058  2 !+
;  967          1059  2 !A zero in a packed decimal.
;  968          1060  2 !-
;  969          1061  2         PACK_ZERO,
;  970          1062  2 !+
;  971          1063  2 !Largest LU in a H floating.
;  972          1064  2 !-
;  973          1065  2         LRGST_H_LU,
;  974          1066  2 !+
;  975          1067  2 !This is an offset to the actual data in TEMP_BUF[1 ; 2].
;  976          1068  2 !-
;  977          1069  2         BUF_OFFSET,
;  978          1070  2 !+
;  979          1071  2 !For simplicity purposes we will set this to be the address of destination data
;  980          1072  2 !-
;  981          1073  2         OUTPUT,
;  982          1074  2 !+
;  983          1075  2 !Output string length.  The optional parameter to indicate length of actual
;  984          1076  2 !string that has been written to destination.
;  985          1077  2 !-
;  986          1078  2         OUTPUT_STR_LEN,
;  987          1079  2 !+
;  988          1080  2 !The effective scale.  source scale minus destination scale.
;  989          1081  2 !-
;  990          1082  2         SCALE;
;  991          1083  2
;  992          1084  2     MAP
;  993          1085  2         OUTPUT : REF BLOCK [, BYTE],
;  994          1086  2         SOURCE : REF BLOCK [, BYTE],
;  995          1087  2         DESTINATION : REF BLOCK [, BYTE];
;  996          1088  2
```

```
;  997          1089  2 !+
;  998          1090  2 ! Establish CVT_HANDLER as handler.
;  999          1091  2 !-
; 1000          1092  2
; 1001          1093  2     ENABLE
; 1002          1094  2         CVT_HANDLER;
; 1003          1095  2
; 1004          1096  2 !+
; 1005          1097  2 ! OUTPUT is used through out the main case statement to indicate the destination
; 1006          1098  2 ! of the converted data.
; 1007          1099  2 !-
; 1008          1100  2     OUTPUT = .DESTINATION [DSC$A_POINTER];
; 1009          1101  2 !+
; 1010          1102  2 ! Zero out these records for LIB$$FIND_CVT_PATH.
; 1011          1103  2 !-
; 1012          1104  2     CH$FILL (0, K_SRC_INFO_LENGTH, SRC_INFO);
; 1013          1105  2     CH$FILL (0, K_DST_INFO_LENGTH, DST_INFO);
; 1014          1106  2     CH$FILL (0, K_INTMED_DATA_LENGTH, INTMED_DATA);
; 1015          1107  2     CH$FILL (%C' ', K_TEMP_BUF_LENGTH, TEMP_BUF1);
; 1016          1108  2     CH$FILL (%C' ', K_TEMP_BUF_LENGTH, TEMP_BUF2);
; 1017          1109  2     OUTPUT_STR_LEN = 0;
; 1018          1110  2 !+
; 1019          1111  2 ! This descriptor is always class S, dtype T.
; 1020          1112  2 ! It is used on various occasions to call routines that require descriptors for
; 1021          1113  2 ! their parameters.
; 1022          1114  2 !-
; 1023          1115  2     CLASS_S_DESC [DSC$B_DTYPE] = DSC$K_DTYPE_T;
; 1024          1116  2     CLASS_S_DESC [DSC$B_CLASS] = DSC$K_CLASS_S;
; 1025          1117  2 !+
; 1026          1118  2 ! Initialize some constants
; 1027          1119  2 !-
; 1028          1120  2     LRGST_P_LU = UPLIT (%P'+4294967295');
; 1029          1121  2     LRGST_D_LU = UPLIT (%D'+4294967295');
; 1030          1122  2     LRGST_H_LU = UPLIT (%H'+4294967295');
; 1031          1123  2     PACK_ZERO = UPLIT (%P'+0');
; 1032          1124  2 !+
; 1033          1125  2 ! SRC_INFO structure will contain the information about the source data, but in
; 1034          1126  2 ! most cases it points to the INTMED_DATA buffer because the source data is
; 1035          1127  2 ! usually converted to an intermidiate data, so before calling LIB$$FIND_CVT_PATH we
; 1036          1128  2 ! will set up the pointer and length fields of SRC_INFO to be INTMED_DATA.
; 1037          1129  2 !-
; 1038          1130  2     SRC_INFO [S_POINTER] = INTMED_DATA;
; 1039          1131  2     SRC_INFO [S_LEN] = K_INTMED_DATA_LENGTH;
; 1040          1132  2 !+
; 1041          1133  2 ! This MACRO is used to test out the LIB$$FIND_CVT_PATH routine, so in a working
; 1042          1134  2 ! module this macro is commented out.
; 1043          1135  2 !-
; 1044          1136  2 !    M_TEST_LIB$$FIND_CVT_PATH
; 1045          1137  2 !+
; 1046          1138  2 ! Lets call LIB$$FIND_CVT_PATH to get SRC_INFO, and DST_INFO all filled out with information
; 1047          1139  2 ! about SOURCE and DESTINATION.
; 1048          1140  2 ! The output parameter CVT_PATH will contain the conversion path when we return.
; 1049          1141  2 !-
; 1050          1142  2     STATUS = LIB$$FIND_CVT_PATH (.SOURCE, .DESTINATION, SRC_INFO, DST_INFO, CVT_PATH);
; 1051          1143  2 !+
; 1052          1144  2 ! If we got an error returned to us by LIB$$FIND_CVT_PATH, it means that one of the
; 1053          1145  2 ! descriptors SOURCE, or DESTINATION was invalid to this routine.
```

```
;  1054          1146  2 ! All errors are negative values.  They are listed in the completion status
;  1055          1147  2 ! section of LIB$$FIND_CVT_PATH.  Although we get a variety of errors; from -1 to -7
;  1056          1148  2 ! we will do some overlaping of errors.
;  1057          1149  2 !-
;  1058          1150  2
;  1059          1151  2     IF .STATUS LSS 0
;  1060          1152  2     THEN
;  1061          1153  3         BEGIN
;  1062          1154  3
;  1063          1155  3         CASE .STATUS FROM K_INVNBDS TO K_UNSCLAROU OF
;  1064          1156  3             SET
;  1065          1157  3
;  1066          1158  3             [K_UNSDTYSTA, K_UNSDTYROU] :
;  1067          1159  3                 RETURN (LIB$_INVDTYDSC);
;  1068          1160  3
;  1069          1161  3             [K_UNSCLASTA, K_UNSCLAROU] :
;  1070          1162  3                 RETURN (LIB$_INVCLADSC);
;  1071          1163  3
;  1072          1164  3             [K_UNSDESSTA, K_UNSDESROU] :
;  1073          1165  3                 RETURN (LIB$_INVCLADTY);
;  1074          1166  3
;  1075          1167  3             [K_INVNBDS] :
;  1076          1168  3                 RETURN (LIB$_INVNBDS);
;  1077          1169  3             TES;
;  1078          1170  3
;  1079          1171  2         END;
;  1080          1172  2
;  1081          1173  2 !+
;  1082          1174  2 ! Enable all arithmetic traps, and figure out the scale fator to be used by
;  1083          1175  2 ! the main CASE statement below.
;  1084          1176  2 !-
;  1085          1177  2     BISPSW (%REF (K_SET_ARITHMETIC_TRAP));
;  1086          1178  2     SCALE = .SRC_INFO [S_SCALE] - .DST_INFO [D_SCALE];
;  1087          1179  2 !<BLF/PAGE>
```

```
;  1089          1180  2 !+
;  1090          1181  2 ! Now that we have SRC_INFO, and DST_INFO structures, and CVT_PATH available,
;  1091          1182  2 ! and source data has been converted to an intermediate data, we will
;  1092          1183  2 ! go from intermediate data that LIB$$FIND_CVT_PATH provided to
;  1093          1184  2 ! a scale intermediate data type, to the actual data type that our caller desired.
;  1094          1185  2 !
;  1095          1186  2 ! The following explains the objective of the conversions :
;  1096          1187  2 !
;  1097          1188  2 !       The objective is to convert from intermediate data type provided by
;  1098          1189  2 !       LIB$$FIND_CVT_PATH routine to the data type that the user has requested in
;  1099          1190  2 !       the destination descriptor.
;  1100          1191  2 !
;  1101          1192  2 !       The intermediate data is in INTMED_DATA, except for when source is
;  1102          1193  2 !       of data type T.  LIB$$FIND_CVT_PATH did not convert or transferred the T
;  1103          1194  2 !       data types, so the intermediate data for this data type is described
;  1104          1195  2 !       by the SOURCE descriptor itself.
;  1105          1196  2 !
;  1106          1197  2 !       The first step is to scale the intermediate data.  This scale is
;  1107          1198  2 !       calculated as :    SCALE = (source scale) - (destination scale).
;  1108          1199  2 !       Scaling cannot always be done on the intermediate data, because
;  1109          1200  2 !       it may under/over flow it, so scaling is done on either the intermediate
;  1110          1201  2 !       or the higest data type of the category that the destination data type
;  1111          1202  2 !       falls in.  The data type with greater range is always selected.
;  1112          1203  2 !       Caution is taken not to select a scaling intermediate
;  1113          1204  2 !       data type that requires G, H, or O instructions, unless source or
;  1114          1205  2 !       destination is of these types.
;  1115          1206  2 !       At the beginning of each sub_case statement a macro is placed to go
;  1116          1207  2 !       from intermediate data type to scaling intermediate data type.
;  1117          1208  2 !       Regardless of whether there is scaling involved or not the intermediate
;  1118          1209  2 !       data type is converted to scaling intermediate data type.
;  1119          1210  2 !       The scaled intermediate data will again end up in INTMED_DATA buffer.
;  1120          1211  2 !
;  1121          1212  2 !       Macros that do this scaling are called M_SCALE_x_y which means convert
;  1122          1213  2 !       x to y and the result value in y is scaled according to the scale specified
;  1123          1214  2 !       in source and destination descriptors.
;  1124          1215  2 !
;  1125          1216  2 !       The next step is to convert the scaled intermediate data to destination
;  1126          1217  2 !       data type and move it to the destination as specified by descriptor.
;  1127          1218  2 !       This is done as close to a 'interrupt proof' manner as possible.
;  1128          1219  2 !       Since only NBDS can be of semantics other than fixed, only in case of
;  1129          1220  2 !       NBDS (or just text) destination is copied to via LIB$SCOPY_x.
;  1130          1221  2 !
;  1131          1222  2 !       PSW is masked such that IV, FU, DV bits are set.
;  1132          1223  2 !
;  1133          1224  2 !-
;  1134          1225  2
;  1135          1226  2     CASE .CVT_PATH FROM K_SMLINT_SMLINT TO K_NBDS_NBDS OF
;  1136          1227  2         SET
;  1137          1228  2 !<BLF/PAGE>
```

```
;  1139          1229  2
;  1140          1230  2          [K_SMLINT_SMLINT] :
;  1141          1231  2              BEGIN
;  1142          1232  2              M_SCALE_L_L;
;  1143          1233  2
;  1144          1234  2              CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_BU TO DSC$K_DTYPE_L OF
;  1145          1235  2                  SET
;  1146          1236  2
;  1147          1237  3                  [DSC$K_DTYPE_BU] :
;  1148          1238  4                      BEGIN
;  1149          1239  4
;  1150          1240  4                      IF .INTMED_DATA [S_LONG_1] LSS 0 THEN RETURN (LIB$_INVCVT);
;  1151          1241  4
;  1152          1242  4                      IF (OUTPUT [BYTE_1] = .INTMED_DATA [LONG_1]) GTRU K_LRGST_BU THEN RETURN (LIB$_INTOVF);
;  1153          1243  4
;  1154          1244  3                      END;
;  1155          1245  3
;  1156          1246  3                  [DSC$K_DTYPE_WU] :
;  1157          1247  4                      BEGIN
;  1158          1248  4
;  1159          1249  4                      IF .INTMED_DATA [LONG_1] LSS 0 THEN RETURN (LIB$_INVCVT);
;  1160          1250  4
;  1161          1251  4                      IF (OUTPUT [WORD_1] = .INTMED_DATA [S_LONG_1]) GTRU K_LRGST_WU THEN RETURN (LIB$_INTOVF)
;  1162          1252  4
;  1163          1253  3                      END;
;  1164          1254  3
;  1165          1255  3                  [DSC$K_DTYPE_B] :
;  1166          1256  3                      CVTLB (INTMED_DATA, .OUTPUT);
;  1167          1257  3
;  1168          1258  3                  [DSC$K_DTYPE_W] :
;  1169          1259  3                      CVTLW (INTMED_DATA, .OUTPUT);
;  1170          1260  3
;  1171          1261  3                  [DSC$K_DTYPE_L] :
;  1172          1262  3                      OUTPUT [LONG_1] = .INTMED_DATA [S_LONG_1];
;  1173          1263  3
;  1174          1264  3                  [INRANGE, OUTRANGE] :
;  1175          1265  3                      RETURN (LIB$_FATERRLIB);
;  1176          1266  3                  TES;                                !For SMLINT_SMLINT
;  1177          1267  3
;  1178          1268  2              END;
;  1179          1269  2 !<BLF/PAGE>
```

```
;  1181          1270  2
;  1182          1271  2          [K_SMLINT_LRGINT, K_LRGINT_LRGINT] :
;  1183          1272  2              BEGIN
;  1184          1273  2
;  1185          1274  2              SELECTONE .CVT_PATH OF
;  1186          1275  2                  SET
;  1187          1276  2
;  1188          1277  3                  [K_SMLINT_LRGINT] :
;  1189          1278  4                      BEGIN
;  1190          1279  4                      M_SCALE_L_OU;
;  1191          1280  4                      END;
;  1192          1281  3
;  1193          1282  3                  [K_LRGINT_LRGINT] :
;  1194          1283  4                      BEGIN
;  1195          1284  4                      M_SCALE_OU_OU;
;  1196          1285  4                      END;
;  1197          1286  3                  TES;
;  1198          1287  2
;  1199          1288  3              SELECTONE .DESTINATION [DSC$B_DTYPE] OF
;  1200          1289  3                  SET
;  1201          1290  3
;  1202          1291  3                  [DSC$K_DTYPE_LU] :
;  1203          1292  4                      BEGIN
;  1204          1293  4
;  1205          1294  4                      IF .SRC_INFO [S_SIGN] THEN RETURN (LIB$_INVCVT);
;  1206          1295  4
;  1207          1296  4                      IF (.INTMED_DATA [LONG_2] OR .INTMED_DATA [LONG_3] OR .INTMED_DATA [LONG_4]) NEQ 0
;  1208          1297  4                      THEN
;  1209          1298  4                          RETURN (LIB$_INTOVF);
;  1210          1299  4
;  1211          1300  4                      OUTPUT [LONG_1] = .INTMED_DATA [LONG_1];
;  1212          1301  3                      END;
;  1213          1302  3
;  1214          1303  3                  [DSC$K_DTYPE_Q] :
;  1215          1304  4                      BEGIN
;  1216          1305  4
;  1217          1306  4                      IF (.INTMED_DATA [LONG_3] OR .INTMED_DATA [LONG_4] OR .INTMED_DATA [4, 31, 1, 0]) NEQ 0
;  1218          1307  4                      THEN
;  1219          1308  4                          RETURN (LIB$_INTOVF);
;  1220          1309  4
;  1221          1310  4                      IF .SRC_INFO [S_SIGN]
;  1222          1311  4                      THEN
;  1223          1312  5                          BEGIN
;  1224          1313  5                          INTMED_DATA [LONG_1] = .INTMED_DATA [LONG_1] XOR %X'FFFFFFFF';
;  1225          1314  5                          INTMED_DATA [LONG_2] = .INTMED_DATA [LONG_2] XOR %X'FFFFFFFF';
;  1226          1315  5
;  1227          1316  5                          IF .INTMED_DATA [LONG_1] EQLU %X'FFFFFFFF'
;  1228          1317  5                          THEN
;  1229          1318  6                              BEGIN
;  1230          1319  6                              INTMED_DATA [LONG_1] = 0;
;  1231          1320  6                              INTMED_DATA [LONG_2] = .INTMED_DATA [LONG_2] + 1;
;  1232          1321  6                              END
;  1233          1322  5                          ELSE
;  1234          1323  5                              INTMED_DATA [LONG_1] = .INTMED_DATA [LONG_1] + 1;
;  1235          1324  5
;  1236          1325  4                          END;
;  1237          1326  4
```

```
;  1238          1327  4                    OUTPUT [LONG_1] = .INTMED_DATA [LONG_1];
;  1239          1328  4                    OUTPUT [LONG_2] = .INTMED_DATA [LONG_2];
;  1240          1329  3                    END;
;  1241          1330  3
;  1242          1331  3                [OTHERWISE] :
;  1243          1332  3                    RETURN (LIB$_FATERRLIB);
;  1244          1333  3                TES;                          !For SMLINT_LRGINT, LRGINT_LRGINT.
;  1245          1334  3
;  1246          1335  2            END;
;  1247          1336  2 !<BLF/PAGE>
```

```
;  1249          1337  2
;  1250          1338  2          [K_SMLINT_SMLFLT, K_LRGINT_SMLFLT, K_SMLFLT_SMLFLT, K_DEC_SMLFLT, K_NBDS_SMLFLT] :
;  1251          1339  3              BEGIN
;  1252          1340  3
;  1253          1341  3              SELECTONE .CVT_PATH OF
;  1254          1342  3                  SET
;  1255          1343  3
;  1256          1344  3                  [K_SMLINT_SMLFLT] :
;  1257          1345  4                      BEGIN
;  1258          1346  4                      M_SCALE_L_D;
;  1259          1347  3                      END;
;  1260          1348  3
;  1261          1349  3                  [K_LRGINT_SMLFLT] :
;  1262          1350  4                      BEGIN
;  1263          1351  4                      M_SCALE_OU_D;
;  1264          1352  3                      END;
;  1265          1353  3
;  1266          1354  3                  [K_SMLFLT_SMLFLT] :
;  1267          1355  4                      BEGIN
;  1268          1356  4                      M_SCALE_D_D;
;  1269          1357  3                      END;
;  1270          1358  3
;  1271          1359  3                  [K_DEC_SMLFLT] :
;  1272          1360  4                      BEGIN
;  1273          1361  4                      M_SCALE_P_D;
;  1274          1362  3                      END;
;  1275          1363  3
;  1276          1364  3                  [K_NBDS_SMLFLT] :
;  1277          1365  4                      BEGIN
;  1278          1366  4                      CLASS_S_DESC [DSC$W_LENGTH] = .SRC_INFO [S_LEN];
;  1279          1367  4                      CLASS_S_DESC [DSC$A_POINTER] = .SRC_INFO [S_POINTER];
;  1280          1368  4                      STATUS = OTS$CVT_T_D (CLASS_S_DESC, INTMED_DATA, 0, -.SCALE,
;  1281          1369  4                          (K_IGN_BLKS OR K_ENB_UNDERFLOW OR K_IGN_TABS OR K_ENB_SCALE));
;  1282          1370  4
;  1283          1371  4                      IF NOT .STATUS THEN RETURN (LIB$_INVNBDS);
;  1284          1372  4
;  1285          1373  3                      END;
;  1286          1374  3              TES;
;  1287          1375  3
;  1288          1376  3          CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_F TO DSC$K_DTYPE_D OF
;  1289          1377  3              SET
;  1290          1378  3
;  1291          1379  3              [DSC$K_DTYPE_F] :
;  1292          1380  4                  BEGIN
;  1293          1381  4                  CVTDF (INTMED_DATA, .OUTPUT);
;  1294          1382  4
;  1295          1383  4                  IF .SRC_INFO [S_SIGN] THEN OUTPUT [0, 15, 1, 0] = 1;
;  1296          1384  4
;  1297          1385  3                  END;
;  1298          1386  3
;  1299          1387  3              [DSC$K_DTYPE_D] :
;  1300          1388  4                  BEGIN
;  1301          1389  4                  OUTPUT [LONG_1] = .INTMED_DATA [LONG_1];
;  1302          1390  4                  OUTPUT [LONG_2] = .INTMED_DATA [LONG_2];
;  1303          1391  4
;  1304          1392  4                  IF .SRC_INFO [S_SIGN] THEN OUTPUT [0, 15, 1, 0] = 1;
;  1305          1393  4
```

```
;  1306          1394  3                    END;
;  1307          1395  3
;  1308          1396  3                [INRANGE, OUTRANGE] :
;  1309          1397  3                    RETURN (LIB$_FATERRLIB);
;  1310          1398  3                TES;            !For SMLINT_SMLFLT, LRGINT_SMLFLT, SMLFLT_SMLFLT, DEC_SMLFLT, NBDS_SMLFLT.
;  1311          1399  3
;  1312          1400  2            END;
;  1313          1401  2 !<BLF/PAGE>
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```
;  1315     1402  2
;  1316     1403  2          [K_SMLINT_LRGFLT, K_LRGINT_LRGFLT, K_SMLFLT_LRGFLT, K_LRGFLT_LRGFLT, K_DEC_LRGFLT] :
;  1317     1404  3              BEGIN
;  1318     1405  3
;  1319     1406  3              SELECTONE .CVT_PATH OF
;  1320     1407  3                  SET
;  1321     1408  3
;  1322     1409  3                  [K_SMLINT_LRGFLT] :
;  1323     1410  4                      BEGIN
;  1324     1411  4                      M_SCALE_L_H;
;  1325     1412  3                      END;
;  1326     1413  3
;  1327     1414  3                  [K_LRGINT_LRGFLT] :
;  1328     1415  4                      BEGIN
;  1329     1416  4                      M_SCALE_OU_H;
;  1330     1417  3                      END;
;  1331     1418  3
;  1332     1419  3                  [K_SMLFLT_LRGFLT] :
;  1333     1420  4                      BEGIN
;  1334     1421  4                      M_SCALE_D_H;
;  1335     1422  3                      END;
;  1336     1423  3
;  1337     1424  3                  [K_LRGFLT_LRGFLT] :
;  1338     1425  4                      BEGIN
;  1339     1426  4                      M_SCALE_H_H;
;  1340     1427  3                      END;
;  1341     1428  3
;  1342     1429  3                  [K_DEC_LRGFLT] :
;  1343     1430  4                      BEGIN
;  1344     1431  4                      M_SCALE_P_H;
;  1345     1432  3                      END;
;  1346     1433  3              TES;
;  1347     1434  3
;  1348     1435  3          CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_G TO DSC$K_DTYPE_H OF
;  1349     1436  3              SET
;  1350     1437  3
;  1351     1438  3              [DSC$K_DTYPE_G] :
;  1352     1439  4                  BEGIN
;  1353     1440  4                  CVTHG (INTMED_DATA, .OUTPUT);
;  1354     1441  4
;  1355     1442  4                  IF .SRC_INFO [S_SIGN] THEN OUTPUT [0, 15, 1, 0] = 1;
;  1356     1443  4
;  1357     1444  3                  END;
;  1358     1445  3
;  1359     1446  3              [DSC$K_DTYPE_H] :
;  1360     1447  4                  BEGIN
;  1361     1448  4                  CH$MOVE (16, INTMED_DATA, .OUTPUT);
;  1362     1449  4
;  1363     1450  4                  IF .SRC_INFO [S_SIGN] THEN OUTPUT [0, 15, 1, 0] = 1;
;  1364     1451  4
;  1365     1452  3                  END;
;  1366     1453  3
;  1367     1454  3              [INRANGE, OUTRANGE] :
;  1368     1455  3                  RETURN (LIB$_FATERRLIB);
;  1369     1456  3              TES;            !For SMLINT_LRGFLT, LRGINT_LRGFLT, SMLFLT_LRGFLT, LRGFLT_LRGFLT, DEC_LRGFLT.
;  1370     1457  3
;  1371     1458  2          END;
```

; 1372 1459 2 !<BLF/PAGE>

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;  1374          1460  2
;  1375          1461  2          [K_SMLINT_DEC, K_DEC_DEC] :
;  1376          1462  3              BEGIN
;  1377          1463  3
;  1378          1464  3              SELECTONE .CVT_PATH OF
;  1379          1465  3                  SET
;  1380          1466  3
;  1381          1467  3                  [K_SMLINT_DEC] :
;  1382          1468  4                      BEGIN
;  1383          1469  4                      M_SCALE_L_P;
;  1384          1470  3                      END;
;  1385          1471  3
;  1386          1472  3                  [K_DEC_DEC] :
;  1387          1473  4                      BEGIN
;  1388          1474  4                      M_SCALE_P_P;
;  1389          1475  3                      END;
;  1390          1476  3                  TES;
;  1391          1477  3
;  1392          1478  3              CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_NU TO DSC$K_DTYPE_P OF
;  1393          1479  3                  SET
;  1394          1480  3
;  1395          1481  3                  [DSC$K_DTYPE_NU] :
;  1396          1482  4                      BEGIN
;  1397          1483  4
;  1398          1484  4                      IF .SRC_INFO [S_SIGN] THEN RETURN (LIB$_INVCVT);
;  1399          1485  4
;  1400          1486  4                      CVTPT (NO_DIGITS, INTMED_DATA, LIB$AB_CVTPT_U, DESTINATION [DSC$W_LENGTH], .OUTPUT);
;  1401          1487  3                      END;
;  1402          1488  3
;  1403          1489  3                  [DSC$K_DTYPE_NL] :
;  1404          1490  3                      CVTPS (NO_DIGITS, INTMED_DATA,
;  1405          1491  3                          %REF (
;  1406          1492  3
;  1407          1493  3                              IF .DESTINATION [DSC$W_LENGTH] EQL 0 THEN 0 ELSE .DESTINATION [DSC$W_LENGTH] - 1
;  1408          1494  3
;  1409          1495  3                      , .OUTPUT);
;  1410          1496  3
;  1411          1497  3                  [DSC$K_DTYPE_NLO] :
;  1412          1498  4                      BEGIN
;  1413          1499  4                      CVTPT (NO_DIGITS, INTMED_DATA, LIB$AB_CVTPT_U, DESTINATION [DSC$W_LENGTH], TEMP_BUF1);
;  1414          1500  6                      TEMP_BUF1 [BYTE_1] = (IF .SRC_INFO [S_SIGN] THEN .(.TEMP_BUF1 [BYTE_1] + LIB$AB_CVT_U_O
;  1415          1501  4                          48 + 10) ELSE .(.TEMP_BUF1 [BYTE_1] + LIB$AB_CVT_U_O - 48));
;  1416          1502  4                      CH$MOVE (.DESTINATION [DSC$W_LENGTH], TEMP_BUF1, .OUTPUT);
;  1417          1503  3                      END;
;  1418          1504  3
;  1419          1505  3                  [DSC$K_DTYPE_NR] :
;  1420          1506  4                      BEGIN
;  1421          1507  4
;  1422          1508  4                      LOCAL
;  1423          1509  4                          DES_LEN;
;  1424          1510  4
;  1425          1511  4                      DES_LEN =
;  1426          1512  5                      BEGIN
;  1427          1513  5
;  1428          1514  5                      IF .DESTINATION [DSC$W_LENGTH] EQL 0 THEN 0 ELSE .DESTINATION [DSC$W_LENGTH] - 1
;  1429          1515  5
;  1430          1516  4                      END;
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;  1431          1517  4                    CVTPS (NO_DIGITS, INTMED_DATA, DES_LEN, TEMP_BUF1);
;  1432          1518  4                    BLOCK [INTMED_DATA + .DES_LEN, 0, 0, 8, 0;, BYTE] = .TEMP_BUF1 [BYTE_1];
;  1433          1519  4                    CH$MOVE (.DES_LEN, TEMP_BUF1 + 1, INTMED_DATA);
;  1434          1520  4                    CH$MOVE (.DES_LEN + 1, INTMED_DATA, .OUTPUT);
;  1435          1521  3                    END;
;  1436          1522  3
;  1437          1523  3                [DSC$K_DTYPE_NRO, DSC$K_DTYPE_NZ] :
;  1438          1524  3                    CVTPT (NO_DIGITS, INTMED_DATA,
;  1439          1525  4                        (IF .DESTINATION [DSC$B_DTYPE] EQL DSC$K_DTYPE_NRO THEN LIB$AB_CVTPT_0 ELSE
;  1440          1526  3                            LIB$AB_CVTPT_Z), DESTINATION [DSC$W_LENGTH], .OUTPUT);
;  1441          1527  3
;  1442          1528  3                [DSC$K_DTYPE_P] :
;  1443          1529  4                    BEGIN
;  1444          1530  4                    CVTPS (NO_DIGITS, INTMED_DATA, DESTINATION [DSC$W_LENGTH], TEMP_BUF1);
;  1445          1531  4                    CVTSP (DESTINATION [DSC$W_LENGTH], TEMP_BUF1, DESTINATION [DSC$W_LENGTH], .OUTPUT);
;  1446          1532  3                    END;
;  1447          1533  3
;  1448          1534  3                [INRANGE, OUTRANGE] :
;  1449          1535  3                    RETURN (LIB$_FATERRLIB);
;  1450          1536  3                TES;                                !For SMLINT_DEC, DEC_DEC
;  1451          1537  3
;  1452          1538  2            END;
;  1453          1539  2 !<BLF/PAGE>
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```
;  1455     1540  2
;  1456     1541  2          [K_LRGINT_SMLINT] :
;  1457     1542  3              BEGIN
;  1458     1543  3              M_SCALE_OU_OU;
;  1459     1544  3
;  1460     1545  3              IF (.INTMED_DATA [LONG_2] OR .INTMED_DATA [LONG_3] OR .INTMED_DATA [LONG_4]) NEQ 0
;  1461     1546  3              THEN
;  1462     1547  3                  RETURN (LIB$_INTOVF);
;  1463     1548  3
;  1464     1549  3              CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_BU TO DSC$K_DTYPE_L OF
;  1465     1550  3                  SET
;  1466     1551  3
;  1467     1552  3                  [DSC$K_DTYPE_BU] :
;  1468     1553  4                      BEGIN
;  1469     1554  4
;  1470     1555  4                      IF .SRC_INFO [S_SIGN] THEN RETURN (LIB$_INVCVT);
;  1471     1556  4
;  1472     1557  4                      IF .INTMED_DATA [BYTE_2] OR .INTMED_DATA [WORD_2] NEQ 0 THEN RETURN (LIB$_INTOVF);
;  1473     1558  4
;  1474     1559  4                      OUTPUT [BYTE_1] = .INTMED_DATA [LONG_1];
;  1475     1560  3                      END;
;  1476     1561  3
;  1477     1562  3                  [DSC$K_DTYPE_WU] :
;  1478     1563  4                      BEGIN
;  1479     1564  4
;  1480     1565  4                      IF .SRC_INFO [S_SIGN] THEN RETURN (LIB$_INVCVT);
;  1481     1566  4
;  1482     1567  4                      IF .INTMED_DATA [WORD_2] NEQ 0 THEN RETURN (LIB$_INTOVF);
;  1483     1568  4
;  1484     1569  4                      OUTPUT [WORD_1] = .INTMED_DATA [LONG_1];
;  1485     1570  3                      END;
;  1486     1571  3
;  1487     1572  3                  [DSC$K_DTYPE_B] :
;  1488     1573  4                      BEGIN
;  1489     1574  4
;  1490     1575  4                      IF .INTMED_DATA [S_LONG_1] LSS 0 THEN RETURN (LIB$_INTOVF);
;  1491     1576  4
;  1492     1577  4                      IF .SRC_INFO [S_SIGN] THEN INTMED_DATA [LONG_1] = -.INTMED_DATA [S_LONG_1];
;  1493     1578  4
;  1494     1579  4                      CVTLB (INTMED_DATA, .OUTPUT);
;  1495     1580  3                      END;
;  1496     1581  3
;  1497     1582  3                  [DSC$K_DTYPE_W] :
;  1498     1583  4                      BEGIN
;  1499     1584  4
;  1500     1585  4                      IF .INTMED_DATA [S_LONG_1] LSS 0 THEN RETURN (LIB$_INTOVF);
;  1501     1586  4
;  1502     1587  4                      IF .SRC_INFO [S_SIGN] THEN INTMED_DATA [LONG_1] = -.INTMED_DATA [S_LONG_1];
;  1503     1588  4
;  1504     1589  4                      CVTLW (INTMED_DATA, .OUTPUT);
;  1505     1590  3                      END;
;  1506     1591  3
;  1507     1592  3                  [DSC$K_DTYPE_L] :
;  1508     1593  4                      BEGIN
;  1509     1594  4
;  1510     1595  4                      IF .INTMED_DATA [S_LONG_1] EQL K_LRGST_NEG_L AND .SRC_INFO [S_SIGN] EQL 1
;  1511     1596  4                      THEN
```

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;  1512          1597  4                        OUTPUT [LONG_1] = .INTMED_DATA [S_LONG_1]
;  1513          1598  4                    ELSE
;  1514          1599  5                        BEGIN
;  1515          1600  5
;  1516          1601  5                        IF .INTMED_DATA [S_LONG_1] LSS 0 THEN RETURN (LIB$_INTCVF);
;  1517          1602  5
;  1518          1603  5                        IF .SRC_INFO [S_SIGN] THEN INTMED_DATA [LONG_1] = -.INTMED_DATA [S_LONG_1];
;  1519          1604  5
;  1520          1605  5                        OUTPUT [LONG_1] = .INTMED_DATA [S_LONG_1];
;  1521          1606  4                        END;
;  1522          1607  4
;  1523          1608  3                    END;
;  1524          1609  3
;  1525          1610  3                [INRANGE, OUTRANGE] :
;  1526          1611  3                    RETURN (LIB$_FATERRLIB);
;  1527          1612  3                TES;                                !For LRGINT_SMLINT
;  1528          1613  3
;  1529          1614  2            END;
;  1530          1615  2 !<BLF/PAGE>
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;  1532     1616  2
;  1533     1617  2          [K_LRGINT_DEC, K_SMLFLT_DEC, K_LRGFLT_DEC, K_NBDS_DEC] :
;  1534     1618  3              BEGIN
;  1535     1619  3              CLASS_S_DESC [DSC$W_LENGTH] = K_TEMP_BUF_LENGTH;
;  1536     1620  3              CLASS_S_DESC [DSC$A_POINTER] = TEMP_BUF2;
;  1537     1621  3
;  1538     1622  3              SELECTONE .CVT_PATH OF
;  1539     1623  3                  SET
;  1540     1624  3
;  1541     1625  3                  [K_LRGINT_DEC] :
;  1542     1626  4                      BEGIN
;  1543     1627  4                      CVTROUH (INTMED_DATA, TEMP_BUF1);
;  1544     1628  4
;  1545     1629  4                      IF .SRC_INFO [S_SIGN] THEN TEMP_BUF1<15, 1, 0> = 1;
;  1546     1630  4
;  1547     1631  4                      STATUS = FOR$CVT_H_TF (TEMP_BUF1, CLASS_S_DESC, 0, .SCALE, 0, 0, 1);
;  1548     1632  3                      END;
;  1549     1633  3
;  1550     1634  3                  [K_SMLFLT_DEC] :
;  1551     1635  4                      BEGIN
;  1552     1636  4
;  1553     1637  4                      IF .INTMED_DATA<15, 1, 0> THEN SRC_INFO [S_SIGN] = 1;
;  1554     1638  4
;  1555     1639  4                      STATUS = FOR$CVT_D_TF (INTMED_DATA, CLASS_S_DESC, 0, .SCALE, 0, 0, 1);
;  1556     1640  3                      END;
;  1557     1641  3
;  1558     1642  3                  [K_LRGFLT_DEC] :
;  1559     1643  4                      BEGIN
;  1560     1644  4
;  1561     1645  4                      IF .INTMED_DATA<15, 1, 0> THEN SRC_INFO [S_SIGN] = 1;
;  1562     1646  4
;  1563     1647  4                      STATUS = FOR$CVT_H_TF (INTMED_DATA, CLASS_S_DESC, 0, .SCALE, 0, 0, 1);
;  1564     1648  3                      END;
;  1565     1649  3
;  1566     1650  3              [K_NBDS_DEC] :
;  1567     1651  4                  BEGIN
;  1568     1652  4                  CLASS_S_DESC [DSC$W_LENGTH] = .SRC_INFO [S_LEN];
;  1569     1653  4                  CLASS_S_DESC [DSC$A_POINTER] = .SRC_INFO [S_POINTER];
;  1570     1654  4                  STATUS = OTS$CVT_T_R (CLASS_S_DESC, TEMP_BUF1, 0, -.SCALE,
;  1571     1655  4                      (K_IGN_BLKS OR K_ENB_UNDERFLOW OR K_IGN_TABS OR K_ENB_SCALE));
;  1572     1656  4
;  1573     1657  4                  IF NOT .STATUS THEN RETURN (LIB$_INVNBDS);
;  1574     1658  4
;  1575     1659  4                  IF .TEMP_BUF1<15, 1, 0> THEN SRC_INFO [S_SIGN] = 1;
;  1576     1660  4
;  1577     1661  4                  CLASS_S_DESC [DSC$W_LENGTH] = K_TEMP_BUF_LENGTH;
;  1578     1662  4                  CLASS_S_DESC [DSC$A_POINTER] = TEMP_BUF2;
;  1579     1663  4                  STATUS = FOR$CVT_H_TF (TEMP_BUF1, CLASS_S_DESC, 0, 0, 0, 0, 1);
;  1580     1664  3                  END;
;  1581     1665  3              TES;
;  1582     1666  3
;  1583     1667  3          IF NOT .STATUS THEN RETURN (LIB$_DECOVF);
;  1584     1668  3
;  1585     1669  3          BUF_OFFSET = CH$FIND_NOT_CH (K_TEMP_BUF_LENGTH, TEMP_BUF2, %C' ') - TEMP_BUF2;
;  1586     1670  3          NO_DIGITS = K_TEMP_BUF_LENGTH - .BUF_OFFSET - 2;
;  1587     1671  3
;  1588     1672  3          IF .NO_DIGITS GTR 31 THEN RETURN (LIB$_ROPRAND);
```

```
;  1589          1673  3
;  1590          1674  3                CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_NU TO DSC$K_DTYPE_P OF
;  1591          1675  3                    SET
;  1592          1676  3
;  1593          1677  3                    [DSC$K_DTYPE_NU] :
;  1594          1678  4                        BEGIN
;  1595          1679  4
;  1596          1680  4                        IF .SRC_INFO [S_SIGN] THEN RETURN (LIB$_INVCVT);
;  1597          1681  4
;  1598          1682  4                        IF .NO_DIGITS GTR .DESTINATION [DSC$W_LENGTH] THEN RETURN (LIB$_DECOVF);
;  1599          1683  4
;  1600          1684  4                        CH$FILL (%X'30', .DESTINATION [DSC$W_LENGTH] - .NO_DIGITS, TEMP_BUF1);
;  1601          1685  4                        CH$MOVE (.NO_DIGITS, TEMP_BUF2 + .BUF_OFFSET + 1,
;  1602          1686  4                            TEMP_BUF1 + .DESTINATION [DSC$W_LENGTH] - .NO_DIGITS);
;  1603          1687  4                        CH$MOVE (.DESTINATION [DSC$W_LENGTH], TEMP_BUF1, .OUTPUT);
;  1604          1688  3                        END;
;  1605          1689  3
;  1606          1690  3                    [DSC$K_DTYPE_NL] :
;  1607          1691  4                        BEGIN
;  1608          1692  4
;  1609          1693  4                        LOCAL
;  1610          1694  4                            DES_LEN;
;  1611          1695  4
;  1612          1696  4                        DES_LEN =
;  1613          1697  5                        BEGIN
;  1614          1698  5
;  1615          1699  5                        IF .DESTINATION [DSC$W_LENGTH] EQL 0 THEN 0 ELSE .DESTINATION [DSC$W_LENGTH] - 1
;  1616          1700  5
;  1617          1701  4                        END;
;  1618          1702  4
;  1619          1703  4                        IF .DES_LEN LSS .NO_DIGITS THEN RETURN (LIB$_DECOVF);
;  1620          1704  4
;  1621          1705  4                        CVTSP (NO_DIGITS, TEMP_BUF2 + .BUF_OFFSET, DES_LEN, TEMP_BUF1);
;  1622          1706  4                        CVTPS (DES_LEN, TEMP_BUF1, DES_LEN, .OUTPUT);
;  1623          1707  3                        END;
;  1624          1708  3
;  1625          1709  3                    [DSC$K_DTYPE_NLO] :
;  1626          1710  4                        BEGIN
;  1627          1711  4                        CH$FILL (%X'30', .BUF_OFFSET + 1, TEMP_BUF2);
;  1628          1712  4
;  1629          1713  4                        IF .NO_DIGITS GTR .DESTINATION [DSC$W_LENGTH] THEN RETURN (LIB$_DECOVF);
;  1630          1714  4
;  1631          1715  4                        BUF_OFFSET = K_TEMP_BUF_LENGTH - .DESTINATION [DSC$W_LENGTH] - 1;
;  1632          1716  6                        BLOCK [TEMP_BUF2 + .BUF_OFFSET, 0, 0, 8, 0;, BYTE] = (IF .SRC_INFO [S_SIGN] THEN .(.BLOC
;  1633          1717  6                            [TEMP_BUF2 + .BUF_OFFSET, 0, 0, 8, 0;, BYTE] + LIB$AB_CVT_U_O - 48 + 10) ELSE .(
;  1634          1718  4                            .BLOCK [TEMP_BUF2 + .BUF_OFFSET, 0, 0, 8, 0;, BYTE] + LIB$AB_CVT_U_O - 48));
;  1635          1719  4                        CH$MOVE (.DESTINATION [DSC$W_LENGTH], TEMP_BUF2 + .BUF_OFFSET, .OUTPUT);
;  1636          1720  3                        END;
;  1637          1721  3
;  1638          1722  3                    [DSC$K_DTYPE_NR] :
;  1639          1723  4                        BEGIN
;  1640          1724  4
;  1641          1725  4                        LOCAL
;  1642          1726  4                            DES_LEN;
;  1643          1727  4
;  1644          1728  4                        DES_LEN =
;  1645          1729  5                        BEGIN
```

```
;  1646     1730  5
;  1647     1731  5                        IF .DESTINATION [DSC$W_LENGTH] EQL 0 THEN 0 ELSE .DESTINATION [DSC$W_LENGTH] - 1
;  1648     1732  5
;  1649     1733  4                        END;
;  1650     1734  4
;  1651     1735  4                        IF .NO_DIGITS GTR .DES_LEN THEN RETURN (LIB$_DECOVF);
;  1652     1736  4
;  1653     1737  4                        CH$FILL (%X'30', .DES_LEN - .NO_DIGITS + 1, TEMP_BUF1);
;  1654     1738  4                        CH$MOVE (.NO_DIGITS, TEMP_BUF2 + .BUF_OFFSET + 1, TEMP_BUF1 + .DES_LEN - .NO_DIGITS);
;  1655     1739  4                        BLOCK [TEMP_BUF1 + .DES_LEN, 0, 0, 8, 0;, BYTE] = .BLOCK [TEMP_BUF2 + .BUF_OFFSET, 0,
;  1656     1740  4                            0, 8, 0;, BYTE];
;  1657     1741  4                        CH$MOVE (.DES_LEN + 1, TEMP_BUF1, .OUTPUT);
;  1658     1742  3                        END;
;  1659     1743  3
;  1660     1744  3                    [DSC$K_DTYPE_NRO, DSC$K_DTYPE_NZ] :
;  1661     1745  4                        BEGIN
;  1662     1746  4
;  1663     1747  4                        IF .NO_DIGITS GTR .DESTINATION [DSC$W_LENGTH] THEN RETURN (LIB$_DECOVF);
;  1664     1748  4
;  1665     1749  4                        CVTSP (NO_DIGITS, TEMP_BUF2 + .BUF_OFFSET, DESTINATION [DSC$W_LENGTH], TEMP_BUF1);
;  1666     1750  4                        CVTPT (DESTINATION [DSC$W_LENGTH], TEMP_BUF1,
;  1667     1751  5                            (IF .DESTINATION [DSC$B_DTYPE] EQL DSC$K_DTYPE_NRO THEN LIB$AB_CVTPT_O ELSE
;  1668     1752  4                                LIB$AB_CVTPT_Z), DESTINATION [DSC$W_LENGTH], .OUTPUT);
;  1669     1753  3                        END;
;  1670     1754  3
;  1671     1755  3                    [DSC$K_DTYPE_P] :
;  1672     1756  4                        BEGIN
;  1673     1757  4
;  1674     1758  4                        IF .NO_DIGITS GTR 31 THEN RETURN (LIB$_DECOVF);
;  1675     1759  4
;  1676     1760  4                        CVTSP (NO_DIGITS, TEMP_BUF2 + .BUF_OFFSET, DESTINATION [DSC$W_LENGTH], .OUTPUT);
;  1677     1761  3                        END;
;  1678     1762  3
;  1679     1763  3                    [INRANGE, OUTRANGE] :
;  1680     1764  3                        RETURN (LIB$_FATERRLIB);
;  1681     1765  3                    TES;                                !For LRGINT_DEC, SMLFLT_DEC, LRGFLT_DEC, NBDS_DEC.
;  1682     1766  3
;  1683     1767  2                END;
;  1684     1768  2 !<BLF/PAGE>
```

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;  1686     1769  2
;  1687     1770  2          [K_SMLINT_NBDS, K_LRGINT_NBDS, K_DEC_NBDS] :
;  1688     1771  2
;  1689     1772  2              SELECTONE .DESTINATION [DSC$B_DTYPE] OF
;  1690     1773  2                  SET
;  1691     1774  2
;  1692     1775  2                  [DSC$K_DTYPE_BU, DSC$K_DTYPE_T, DSC$K_DTYPE_VT] :
;  1693     1776  3                      BEGIN
;  1694     1777  3                      CLASS_S_DESC [DSC$W_LENGTH] = K_TEMP_BUF_LENGTH;
;  1695     1778  3                      CLASS_S_DESC [DSC$A_POINTER] = TEMP_BUF2;
;  1696     1779  3
;  1697     1780  3                      IF .SCALE GEQ 0 THEN DIGITS_IN_FRACT = 0 ELSE DIGITS_IN_FRACT = -.SCALE;
;  1698     1781  3
;  1699     1782  3                      SELECTONE .CVT_PATH OF
;  1700     1783  3                          SET
;  1701     1784  3
;  1702     1785  3                          [K_SMLINT_NBDS] :
;  1703     1786  4                              BEGIN
;  1704     1787  4                              CVTLD (INTMED_DATA, TEMP_BUF1);
;  1705     1788  4                              STATUS = FOR$CVT_D_TF (TEMP_BUF1, CLASS_S_DESC, .DIGITS_IN_FRACT, .SCALE);
;  1706     1789  3                              END;
;  1707     1790  3
;  1708     1791  3                          [K_LRGINT_NBDS] :
;  1709     1792  4                              BEGIN
;  1710     1793  4                              CVTROUH (INTMED_DATA, TEMP_BUF1);
;  1711     1794  4
;  1712     1795  4                              IF .SRC_INFO [S_SIGN] THEN TEMP_BUF1<15, 1, 0> = 1;
;  1713     1796  4
;  1714     1797  4                              STATUS = FOR$CVT_H_TF (TEMP_BUF1, CLASS_S_DESC, .DIGITS_IN_FRACT, .SCALE);
;  1715     1798  3                              END;
;  1716     1799  3
;  1717     1800  3                          [K_DEC_NBDS] :
;  1718     1801  4                              BEGIN
;  1719     1802  4                              NO_DIGITS = .SRC_INFO [S_LEN];
;  1720     1803  4                              CVTPS (NO_DIGITS, INTMED_DATA, NO_DIGITS, TEMP_BUF2);
;  1721     1804  4                              CLASS_S_DESC [DSC$W_LENGTH] = .NO_DIGITS + 1;
;  1722     1805  4                              OTS$CVT_T_H (CLASS_S_DESC, TEMP_BUF1, 0, 0,
;  1723     1806  4                                  (K_IGN_BLKS OR K_ENB_UNDERFLOW OR K_IGN_TABS ));
;  1724     1807  4                              CLASS_S_DESC [DSC$W_LENGTH] = K_TEMP_BUF_LENGTH;
;  1725     1808  4                              STATUS = FOR$CVT_H_TF (TEMP_BUF1, CLASS_S_DESC, .DIGITS_IN_FRACT, .SCALE);
;  1726     1809  3                              END;
;  1727     1810  3                          TES;
;  1728     1811  3
;  1729     1812  3                      BUF_OFFSET = CH$FIND_NOT_CH (K_TEMP_BUF_LENGTH, TEMP_BUF2, %C' ') - TEMP_BUF2;
;  1730     1813  3                      FINAL_LEN = K_TEMP_BUF_LENGTH = .BUF_OFFSET -
;  1731     1814  4                      BEGIN
;  1732     1815  4
;  1733     1816  4                      IF .DIGITS_IN_FRACT EQL 0 THEN 1 ELSE 0
;  1734     1817  4
;  1735     1818  3                      END;
;  1736     1819  3
;  1737     1820  3                      IF NOT .STATUS
;  1738     1821  3                      THEN
;  1739     1822  4                          BEGIN
;  1740     1823  4
;  1741     1824  4                          IF .DST_INFO [D_LEN] - 9 LEQ 0
;  1742     1825  4                          THEN
```

```
;  1743          1826  4                          DIGITS_IN_FRACT = 33
;  1744          1827  4                      ELSE
;  1745          1828  4                          DIGITS_IN_FRACT = MIN (33, .DST_INFO [D_LEN] - 9);
;  1746          1829  4
;  1747          1830  4                      STATUS = FOR$CVT_H_TE (TEMP_BUF1, CLASS_S_DESC, .DIGITS_IN_FRACT, .SCALE, 0, 4);
;  1748          1831  4
;  1749          1832  4                      IF NOT .STATUS THEN RETURN (LIB$_FATERRLIB);
;  1750          1833  4
;  1751          1834  4                      BUF_OFFSET = CH$FIND_NOT_CH (K_TEMP_BUF_LENGTH, TEMP_BUF2, %C' ') - TEMP_BUF2;
;  1752          1835  4                      FINAL_LEN = K_TEMP_BUF_LENGTH - .BUF_OFFSET;
;  1753          1836  4                      END;
;  1754          1837  3
;  1755          1838  3                  OUTPUT_STR_LEN = .FINAL_LEN;
;  1756          1839  3                  STATUS = LIB$SCOPY_R_DX6 (.FINAL_LEN, TEMP_BUF2 + .BUF_OFFSET, .DESTINATION);
;  1757          1840  3
;  1758          1841  3                  IF .STATUS EQL LIB$_STRTRU THEN RETURN (LIB$_DESSTROVF);
;  1759          1842  3
;  1760          1843  3                  IF NOT .STATUS THEN RETURN (.STATUS);
;  1761          1844  3
;  1762          1845  3                  END;
;  1763          1846  2
;  1764          1847  2              [OTHERWISE] :
;  1765          1848  2                  RETURN (LIB$_FATERRLIB);
;  1766          1849  2              TES;                                !For SMLINT_NBDS, LRGINT_NBDS, DEC_NBDS
;  1767          1850  2
;  1768          1851  2 !<BLF/PAGE>
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```
;1770    1852  2
;1771    1853  2          [K_SMLFLT_SMLINT] :
;1772    1854  3              BEGIN
;1773    1855  3              M_SCALE_D_D;
;1774    1856  3              CVTRDL (INTMED_DATA, TEMP_BUF1);
;1775    1857  3
;1776    1858  3              CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_BU TO DSC$K_DTYPE_L OF
;1777    1859  3                  SET
;1778    1860  3
;1779    1861  3                  [DSC$K_DTYPE_BU] :
;1780    1862  4                      BEGIN
;1781    1863  4
;1782    1864  4                      IF .INTMED_DATA<15, 1, 0> THEN RETURN (LIB$_INVCVT);
;1783    1865  4
;1784    1866  4                      IF .TEMP_BUF1 [LONG_1] GTRU K_LRGST_BU THEN RETURN (LIB$_INTOVF);
;1785    1867  4
;1786    1868  4                      OUTPUT [BYTE_1] = .TEMP_BUF1 [BYTE_1];
;1787    1869  3                      END;
;1788    1870  3
;1789    1871  3                  [DSC$K_DTYPE_WU] :
;1790    1872  4                      BEGIN
;1791    1873  4
;1792    1874  4                      IF .INTMED_DATA<15, 1, 0> THEN RETURN (LIB$_INVCVT);
;1793    1875  4
;1794    1876  4                      IF .TEMP_BUF1 [LONG_1] GTRU K_LRGST_WU THEN RETURN (LIB$_INTOVF);
;1795    1877  4
;1796    1878  4                      OUTPUT [WORD_1] = .TEMP_BUF1 [WORD_1];
;1797    1879  3                      END;
;1798    1880  3
;1799    1881  3                  [DSC$K_DTYPE_B] :
;1800    1882  4                      BEGIN
;1801    1883  4                      CVTLB (TEMP_BUF1, .OUTPUT);
;1802    1884  3                      END;
;1803    1885  3
;1804    1886  3                  [DSC$K_DTYPE_W] :
;1805    1887  4                      BEGIN
;1806    1888  4                      CVTLW (TEMP_BUF1, .OUTPUT);
;1807    1889  3                      END;
;1808    1890  3
;1809    1891  3                  [DSC$K_DTYPE_L] :
;1810    1892  3                      OUTPUT [LONG_1] = .TEMP_BUF1 [S_LONG_1];
;1811    1893  3
;1812    1894  3                  [INRANGE, OUTRANGE] :
;1813    1895  3                      RETURN (LIB$_FATERRLIB);
;1814    1896  3                  TES;                                !For SMLFLT_SMLINT
;1815    1897  3
;1816    1898  2              END;
;1817    1899  2 !<BLF/PAGE>
```

```
;  1819          1900  2
;  1820          1901  2          [K_SMLFLT_LRGINT] :
;  1821          1902  2              BEGIN
;  1822          1903  3              M_SCALE_D_D;
;  1823          1904  3
;  1824          1905  3              CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_LU TO DSC$K_DTYPE_Q OF
;  1825          1906  3                  SET
;  1826          1907  3
;  1827          1908  3                  [DSC$K_DTYPE_LU] :
;  1828          1909  4                      BEGIN
;  1829          1910  4
;  1830          1911  4                      IF .INTMED_DATA<15, 1, 0> THEN RETURN (LIB$_INVCVT);
;  1831          1912  4
;  1832          1913  4                      IF CMPD (INTMED_DATA, .LRGST_D_LU) GTR 0 THEN RETURN (LIB$_INTOVF);
;  1833          1914  4
;  1834          1915  4                      BICPSW (%REF (K_SET_ARITHMETIC_TRAP));
;  1835          1916  4                      CVTRDL (INTMED_DATA, .OUTPUT);
;  1836          1917  4                      BISPSW (%REF (K_SET_ARITHMETIC_TRAP));
;  1837          1918  3                      END;
;  1838          1919  3
;  1839          1920  3                  [DSC$K_DTYPE_Q] :
;  1840          1921  3                      CVTRDQ (INTMED_DATA, .OUTPUT);
;  1841          1922  3
;  1842          1923  3                  [INRANGE, OUTRANGE] :
;  1843          1924  3                      RETURN (LIB$_FATERRLIB);
;  1844          1925  3                  TES;                                !For SMLFLT_LRGINT
;  1845          1926  3
;  1846          1927  2              END;
;  1847          1928  2 !<BLF/PAGE>
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```
;  1849     1929  2
;  1850     1930  2          [K_SMLFLT_NBDS] :
;  1851     1931  2
;  1852     1932  2              SELECTONE .DESTINATION [DSC$B_DTYPE] OF
;  1853     1933  2                  SET
;  1854     1934  2
;  1855     1935  2                  [DSC$K_DTYPE_BU, DSC$K_DTYPE_T, DSC$K_DTYPE_VT] :
;  1856     1936  3                      BEGIN
;  1857     1937  3                      CLASS_S_DESC [DSC$W_LENGTH] = K_TEMP_BUF_LENGTH;
;  1858     1938  3                      CLASS_S_DESC [DSC$A_POINTER] = TEMP_BUF2;
;  1859     1939  3                      DIGITS_IN_FRACT =
;  1860     1940  4                      BEGIN
;  1861     1941  4
;  1862     1942  4                      CASE .SOURCE [DSC$B_DTYPE] FROM DSC$K_DTYPE_F TO DSC$K_DTYPE_D OF
;  1863     1943  4                          SET
;  1864     1944  4
;  1865     1945  4                          [DSC$K_DTYPE_F] :
;  1866     1946  4                              7;
;  1867     1947  4
;  1868     1948  4                          [DSC$K_DTYPE_D] :
;  1869     1949  4                              16;
;  1870     1950  4                          TES
;  1871     1951  4
;  1872     1952  3                      END;
;  1873     1953  3
;  1874     1954  3                      IF .DST_INFO [D_LEN] - 7 GTR 0
;  1875     1955  3                      THEN
;  1876     1956  3                          DIGITS_IN_FRACT = MIN (.DIGITS_IN_FRACT,
;  1877     1957  3                              .DST_INFO [D_LEN] - 7);
;  1878     1958  3
;  1879     1959  3                      STATUS = FOR$CVT_D_TE (INTMED_DATA, CLASS_S_DESC, .DIGITS_IN_FRACT, .SCALE, 0);
;  1880     1960  3
;  1881     1961  3                      IF NOT .STATUS THEN RETURN (LIB$_FATERRLIB);
;  1882     1962  3
;  1883     1963  3                      BUF_OFFSET = CH$FIND_NOT_CH (K_TEMP_BUF_LENGTH, TEMP_BUF2, %C' ') - TEMP_BUF2;
;  1884     1964  3                      FINAL_LEN = K_TEMP_BUF_LENGTH - .BUF_OFFSET;
;  1885     1965  3                      OUTPUT_STR_LEN = .FINAL_LEN;
;  1886     1966  3                      STATUS = LIB$SCOPY_R_DX6 (.FINAL_LEN, TEMP_BUF2 + .BUF_OFFSET, .DESTINATION);
;  1887     1967  3
;  1888     1968  3                      IF .STATUS EQL LIB$_STRTRU THEN RETURN (LIB$_DESSTROVF);
;  1889     1969  3
;  1890     1970  3                      IF NOT .STATUS THEN RETURN (.STATUS);
;  1891     1971  3
;  1892     1972  2                      END;
;  1893     1973  2
;  1894     1974  2                  [OTHERWISE] :
;  1895     1975  2                      RETURN (LIB$_FATERRLIB);
;  1896     1976  2                  TES;                                !For SMLFLT_NBDS
;  1897     1977  2
;  1898     1978  2 !<BLF/PAGE>
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;  1900     1979  2
;  1901     1980  2          [K_LRGFLT_SMLINT] :
;  1902     1981  3              BEGIN
;  1903     1982  3              M_SCALE_H_H;
;  1904     1983  3              CVTRHL (INTMED_DATA, TEMP_BUF1);
;  1905     1984  3
;  1906     1985  3              CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_BU TO DSC$K_DTYPE_L OF
;  1907     1986  3                  SET
;  1908     1987  3
;  1909     1988  3                  [DSC$K_DTYPE_BU] :
;  1910     1989  4                      BEGIN
;  1911     1990  4
;  1912     1991  4                      IF .INTMED_DATA<15, 1, 0> THEN RETURN (LIB$_INVCVT);
;  1913     1992  4
;  1914     1993  4                      IF .TEMP_BUF1 [LONG_1] GTRU K_LRGST_BU THEN RETURN (LIB$_INTOVF);
;  1915     1994  4
;  1916     1995  4                      OUTPUT [BYTE_1] = .TEMP_BUF1 [BYTE_1];
;  1917     1996  3                      END;
;  1918     1997  3
;  1919     1998  3                  [DSC$K_DTYPE_WU] :
;  1920     1999  4                      BEGIN
;  1921     2000  4
;  1922     2001  4                      IF .INTMED_DATA<15, 1, 0> THEN RETURN (LIB$_INVCVT);
;  1923     2002  4
;  1924     2003  4                      IF .TEMP_BUF1 [LONG_1] GTRU K_LRGST_WU THEN RETURN (LIB$_INTOVF);
;  1925     2004  4
;  1926     2005  4                      OUTPUT [WORD_1] = .TEMP_BUF1 [WORD_1];
;  1927     2006  3                      END;
;  1928     2007  3
;  1929     2008  3                  [DSC$K_DTYPE_B] :
;  1930     2009  4                      BEGIN
;  1931     2010  4                      CVTLB (TEMP_BUF1, .OUTPUT);
;  1932     2011  3                      END;
;  1933     2012  3
;  1934     2013  3                  [DSC$K_DTYPE_W] :
;  1935     2014  4                      BEGIN
;  1936     2015  4                      CVTLW (TEMP_BUF1, .OUTPUT);
;  1937     2016  3                      END;
;  1938     2017  3
;  1939     2018  3                  [DSC$K_DTYPE_L] :
;  1940     2019  3                      OUTPUT [LONG_1] = .TEMP_BUF1 [S_LONG_1];
;  1941     2020  3
;  1942     2021  3                  [INRANGE, OUTRANGE] :
;  1943     2022  3                      RETURN (LIB$_FATERRLIB);
;  1944     2023  3                  TES;                                !For LRGFLT_SMLINT
;  1945     2024  3
;  1946     2025  2              END;
;  1947     2026  2 !<BLF/PAGE>
```

```
;  1949          2027  2
;  1950          2028  2          [K_LRGFLT_LRGINT] :
;  1951          2029  3              BEGIN
;  1952          2030  3              M_SCALE_H_H;
;  1953          2031  3
;  1954          2032  3              CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_LU TO DSC$K_DTYPE_Q OF
;  1955          2033  3                  SET
;  1956          2034  3
;  1957          2035  3                  [DSC$K_DTYPE_LU] :
;  1958          2036  4                      BEGIN
;  1959          2037  4
;  1960          2038  4                      IF .INTMED_DATA<15, 1, 0> THEN RETURN (LIB$_INVCVT);
;  1961          2039  4
;  1962          2040  4                      IF CMPH (INTMED_DATA, .LRGST_H_LU) GTR 0 THEN RETURN (LIB$_INTOVF);
;  1963          2041  4
;  1964          2042  4                      BICPSW (%REF (K_SET_ARITHMETIC_TRAP));
;  1965          2043  4                      CVTRHL (INTMED_DATA, .OUTPUT);
;  1966          2044  4                      BISPSW (%REF (K_SET_ARITHMETIC_TRAP));
;  1967          2045  3                      END;
;  1968          2046  3
;  1969          2047  3                  [DSC$K_DTYPE_Q] :
;  1970          2048  3                      CVTRHQ (INTMED_DATA, .OUTPUT);
;  1971          2049  3
;  1972          2050  3                  [INRANGE, OUTRANGE] :
;  1973          2051  3                      RETURN (LIB$_FATERRLIB);
;  1974          2052  3                  TES;                                !For LRGFLT_LRGINT
;  1975          2053  3
;  1976          2054  2              END;
;  1977          2055  2 !<BLF/PAGE>
```

```
;  1979          2056  2
;  1980          2057  2          [K_LRGFLT_SMLFLT] :
;  1981          2058  3              BEGIN
;  1982          2059  3              M_SCALE_H_H;
;  1983          2060  3
;  1984          2061  3              CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_F TO DSC$K_DTYPE_D OF
;  1985          2062  3                  SET
;  1986          2063  3
;  1987          2064  3                  [DSC$K_DTYPE_F] :
;  1988          2065  3                      CVTHF (INTMED_DATA, .OUTPUT);
;  1989          2066  3
;  1990          2067  3                  [DSC$K_DTYPE_D] :
;  1991          2068  3                      CVTHD (INTMED_DATA, .OUTPUT);
;  1992          2069  3
;  1993          2070  3                  [INRANGE, OUTRANGE] :
;  1994          2071  3                      RETURN (LIB$_FATERRLIB);
;  1995          2072  3                  TES;                                !For LRGFLT_SMLFLT
;  1996          2073  3
;  1997          2074  2              END;
;  1998          2075  2 !<BLF/PAGE>
```

```
;  2000          2076  2
;  2001          2077  2          [K_LRGFLT_NBDS] :
;  2002          2078  2
;  2003          2079  2              SELECTONE .DESTINATION [DSC$B_DTYPE] OF
;  2004          2080  2                  SET
;  2005          2081  2
;  2006          2082  2                  [DSC$K_DTYPE_BU, DSC$K_DTYPE_T, DSC$K_DTYPE_VT] :
;  2007          2083  3                      BEGIN
;  2008          2084  3
;  2009          2085  3                      LOCAL
;  2010          2086  3                          NOT_DIGITS_IN_FRACT;
;  2011          2087  3
;  2012          2088  3                      CLASS_S_DESC [DSC$W_LENGTH] = K_TEMP_BUF_LENGTH;
;  2013          2089  3                      CLASS_S_DESC [DSC$A_POINTER] = TEMP_BUF2;
;  2014          2090  3                      DIGITS_IN_FRACT =
;  2015          2091  4                      BEGIN
;  2016          2092  4
;  2017          2093  4                      CASE .SOURCE [DSC$B_DTYPE] FROM DSC$K_DTYPE_G TO DSC$K_DTYPE_H OF
;  2018          2094  4                          SET
;  2019          2095  4
;  2020          2096  4                          [DSC$K_DTYPE_G] :
;  2021          2097  4                              15;
;  2022          2098  4
;  2023          2099  4                          [DSC$K_DTYPE_H] :
;  2024          2100  4                              33;
;  2025          2101  4                          TES
;  2026          2102  4
;  2027          2103  3                      END;
;  2028          2104  3                      NOT_DIGITS_IN_FRACT =
;  2029          2105  4                      BEGIN
;  2030          2106  4
;  2031          2107  4                      CASE .SOURCE [DSC$B_DTYPE] FROM DSC$K_DTYPE_G TO DSC$K_DTYPE_H OF
;  2032          2108  4                          SET
;  2033          2109  4
;  2034          2110  4                          [DSC$K_DTYPE_G] :
;  2035          2111  4                              7;
;  2036          2112  4
;  2037          2113  4                          [DSC$K_DTYPE_H] :
;  2038          2114  4                              8;
;  2039          2115  4                          TES
;  2040          2116  4
;  2041          2117  3                      END;
;  2042          2118  3
;  2043          2119  3                      IF .DST_INFO [D_LEN] - .NOT_DIGITS_IN_FRACT GTR 0
;  2044          2120  3                      THEN
;  2045          2121  3                          DIGITS_IN_FRACT = MIN (.DIGITS_IN_FRACT,
;  2046          2122  3                              .DST_INFO [D_LEN] - .NOT_DIGITS_IN_FRACT);
;  2047          2123  3
;  2048          2124  3                      STATUS = FOR$CVT_H_TE (INTMED_DATA, CLASS_S_DESC, .DIGITS_IN_FRACT, .SCALE, 0, 4);
;  2049          2125  3
;  2050          2126  3                      IF NOT .STATUS THEN RETURN (LIB$_FATERRLIB);
;  2051          2127  3
;  2052          2128  3                      BUF_OFFSET = CH$FIND_NOT_CH (K_TEMP_BUF_LENGTH, TEMP_BUF2, %C' ') - TEMP_BUF2;
;  2053          2129  3                      FINAL_LEN = K_TEMP_BUF_LENGTH - .BUF_OFFSET;
;  2054          2130  3                      OUTPUT_STR_LEN = .FINAL_LEN;
;  2055          2131  3                      STATUS = LIB$SCOPY_R_DX6 (.FINAL_LEN, TEMP_BUF2 + .BUF_OFFSET, .DESTINATION);
;  2056          2132  3
```

```
;  2057          2133  3                    IF .STATUS EQL LIB$_STRTRU THEN RETURN (LIB$_DESSTROVF);
;  2058          2134  3
;  2059          2135  3                    IF NOT .STATUS THEN RETURN (.STATUS);
;  2060          2136  3
;  2061          2137  2                    END;
;  2062          2138  2
;  2063          2139  2                [OTHERWISE] :
;  2064          2140  2                    RETURN (LIB$_FATERRLIB);
;  2065          2141  2                TES;                                !For LRGFLT_NBDS
;  2066          2142  2
;  2067          2143  2 !<BLF/PAGE>
```

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;  2069     2144  2
;  2070     2145  2          [K_DEC_SMLINT] :
;  2071     2146  3              BEGIN
;  2072     2147  3              M_SCALE_P_P;
;  2073     2148  3              CVTPL (NO_DIGITS, INTMED_DATA, TEMP_BUF1);
;  2074     2149  3
;  2075     2150  3              CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_BU TO DSC$K_DTYPE_L OF
;  2076     2151  3                  SET
;  2077     2152  3
;  2078     2153  3                  [DSC$K_DTYPE_BU] :
;  2079     2154  4                      BEGIN
;  2080     2155  4
;  2081     2156  4                      IF .TEMP_BUF1 [S_LONG_1] LSS 0 THEN RETURN (LIB$_INVCVT);
;  2082     2157  4
;  2083     2158  4                      IF .TEMP_BUF1 [LONG_1] GTRU K_LRGST_BU THEN RETURN (LIB$_INTOVF);
;  2084     2159  4
;  2085     2160  4                      OUTPUT [BYTE_1] = .TEMP_BUF1 [BYTE_1]
;  2086     2161  3                      END;
;  2087     2162  3
;  2088     2163  3                  [DSC$K_DTYPE_WU] :
;  2089     2164  4                      BEGIN
;  2090     2165  4
;  2091     2166  4                      IF .TEMP_BUF1 [S_LONG_1] LSS 0 THEN RETURN (LIB$_INVCVT);
;  2092     2167  4
;  2093     2168  4                      IF .TEMP_BUF1 [LONG_1] GTRU K_LRGST_WU THEN RETURN (LIB$_INTOVF);
;  2094     2169  4
;  2095     2170  4                      OUTPUT [WORD_1] = .TEMP_BUF1 [WORD_1]
;  2096     2171  3                      END;
;  2097     2172  3
;  2098     2173  3                  [DSC$K_DTYPE_B] :
;  2099     2174  4                      BEGIN
;  2100     2175  4                      CVTLB (TEMP_BUF1, .OUTPUT);
;  2101     2176  3                      END;
;  2102     2177  3
;  2103     2178  3                  [DSC$K_DTYPE_W] :
;  2104     2179  4                      BEGIN
;  2105     2180  4                      CVTLW (TEMP_BUF1, .OUTPUT);
;  2106     2181  3                      END;
;  2107     2182  3
;  2108     2183  3                  [DSC$K_DTYPE_L] :
;  2109     2184  3                      OUTPUT [LONG_1] = .TEMP_BUF1 [S_LONG_1];
;  2110     2185  3
;  2111     2186  3                  [INRANGE, OUTRANGE] :
;  2112     2187  3                      RETURN (LIB$_FATERRLIB);
;  2113     2188  3                  TES;                                !For DEC_SMLINT
;  2114     2189  3
;  2115     2190  2              END;
;  2116     2191  2 !<BLF/PAGE>
```

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;  2118          2192  2
;  2119          2193  2          [K_DEC_LRGINT] :
;  2120          2194  3              BEGIN
;  2121          2195  3              M_SCALE_P_P;
;  2122          2196  3
;  2123          2197  3              CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_LU TO DSC$K_DTYPE_Q OF
;  2124          2198  3                  SET
;  2125          2199  3
;  2126          2200  3                  [DSC$K_DTYPE_LU] :
;  2127          2201  4                      BEGIN
;  2128          2202  4
;  2129          2203  4                      IF .SRC_INFO [S_SIGN] THEN RETURN (LIB$_INVCVT);
;  2130          2204  4
;  2131          2205  5                      IF (CMPP (NO_DIGITS, INTMED_DATA, %REF (K_PACK_LU_LEN), .LRGST_P_LU) GEQ 0)
;  2132          2206  4                      THEN
;  2133          2207  4                          RETURN (LIB$_INTOVF);
;  2134          2208  4
;  2135          2209  4                      BICPSW (%REF (K_SET_ARITHMETIC_TRAP));
;  2136          2210  4                      CVTPL (NO_DIGITS, INTMED_DATA, .OUTPUT);
;  2137          2211  4                      BISPSW (%REF (K_SET_ARITHMETIC_TRAP));
;  2138          2212  3                      END;
;  2139          2213  3
;  2140          2214  3                  [DSC$K_DTYPE_Q] :
;  2141          2215  4                      BEGIN
;  2142          2216  4                      CVTPS (NO_DIGITS, INTMED_DATA, NO_DIGITS, TEMP_BUF2);
;  2143          2217  4                      CLASS_S_DESC [DSC$W_LENGTH] = .NO_DIGITS + 1;
;  2144          2218  4                      CLASS_S_DESC [DSC$A_POINTER] = TEMP_BUF2;
;  2145          2219  4                      OTS$CVT_T_H (CLASS_S_DESC, TEMP_BUF1);
;  2146          2220  4                      CVTRHQ (TEMP_BUF1, .OUTPUT);
;  2147          2221  3                      END;
;  2148          2222  3
;  2149          2223  3                  [INRANGE, OUTRANGE] :
;  2150          2224  3                      RETURN (LIB$_FATERRLIB);
;  2151          2225  3                  TES;                                !For DEC_LRGINT
;  2152          2226  3
;  2153          2227  2              END;
;  2154          2228  2 !<BLF/PAGE>
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;  2156      2229  2
;  2157      2230  2          [K_NBDS_SMLINT] :
;  2158      2231  3              BEGIN
;  2159      2232  3              CLASS_S_DESC [DSC$W_LENGTH] = .SRC_INFO [S_LEN];
;  2160      2233  3              CLASS_S_DESC [DSC$A_POINTER] = .SRC_INFO [S_POINTER];
;  2161      2234  3              STATUS = OTS$CVT_T_D (CLASS_S_DESC, TEMP_BUF1, 0, -.SCALE,
;  2162      2235  3                  (K_IGN_BLKS OR K_ENB_UNDERFLOW OR K_IGN_TABS OR K_ENB_SCALE));
;  2163      2236  3
;  2164      2237  3              IF NOT .STATUS THEN RETURN (LIB$_INVNBDS);
;  2165      2238  3
;  2166      2239  3              CVTRDL (TEMP_BUF1, TEMP_BUF2);
;  2167      2240  3
;  2168      2241  3              CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_BU TO DSC$K_DTYPE_L OF
;  2169      2242  3                  SET
;  2170      2243  3
;  2171      2244  3                  [DSC$K_DTYPE_BU] :
;  2172      2245  4                      BEGIN
;  2173      2246  4
;  2174      2247  4                      IF .TEMP_BUF2 [S_LONG_1] LSS 0 THEN RETURN (LIB$_INVCVT);
;  2175      2248  4
;  2176      2249  4                      IF .TEMP_BUF2 [LONG_1] GTRU K_LRGST_BU THEN RETURN (LIB$_INTOVF);
;  2177      2250  4
;  2178      2251  4                      OUTPUT [BYTE_1] = .TEMP_BUF2 [BYTE_1];
;  2179      2252  3                      END;
;  2180      2253  3
;  2181      2254  3                  [DSC$K_DTYPE_WU] :
;  2182      2255  4                      BEGIN
;  2183      2256  4
;  2184      2257  4                      IF .TEMP_BUF2 [S_LONG_1] LSS 0 THEN RETURN (LIB$_INVCVT);
;  2185      2258  4
;  2186      2259  4                      IF .TEMP_BUF2 [LONG_1] GTRU K_LRGST_WU THEN RETURN (LIB$_INTOVF);
;  2187      2260  4
;  2188      2261  4                      OUTPUT [WORD_1] = .TEMP_BUF2 [WORD_1];
;  2189      2262  3                      END;
;  2190      2263  3
;  2191      2264  3                  [DSC$K_DTYPE_B] :
;  2192      2265  4                      BEGIN
;  2193      2266  4                      CVTLB (TEMP_BUF2, .OUTPUT);
;  2194      2267  3                      END;
;  2195      2268  3
;  2196      2269  3                  [DSC$K_DTYPE_W] :
;  2197      2270  4                      BEGIN
;  2198      2271  4                      CVTLW (TEMP_BUF2, .OUTPUT);
;  2199      2272  3                      END;
;  2200      2273  3
;  2201      2274  3                  [DSC$K_DTYPE_L] :
;  2202      2275  4                      BEGIN
;  2203      2276  4                      OUTPUT [LONG_1] = .TEMP_BUF2 [S_LONG_1];
;  2204      2277  3                      END;
;  2205      2278  3
;  2206      2279  3                  [INRANGE, OUTRANGE] :
;  2207      2280  3                      RETURN (LIB$_FATERRLIB);
;  2208      2281  3                  TES;                                !For NBDS_SMLINT
;  2209      2282  3
;  2210      2283  2              END;
;  2211      2284  2 !<BLF/PAGE>
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;  2213          2285  2
;  2214          2286  2          [K_NBDS_LRGINT] :
;  2215          2287  2
;  2216          2288  2              CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_LU TO DSC$K_DTYPE_Q OF
;  2217          2289  2                  SET
;  2218          2290  2
;  2219          2291  2                  [DSC$K_DTYPE_LU] :
;  2220          2292  3                      BEGIN
;  2221          2293  3                      CLASS_S_DESC [DSC$W_LENGTH] = .SRC_INFO [S_LEN];
;  2222          2294  3                      CLASS_S_DESC [DSC$A_POINTER] = .SRC_INFO [S_POINTER];
;  2223          2295  3                      STATUS = OTS$CVT_T_D (CLASS_S_DESC, TEMP_BUF1, 0, -.SCALE,
;  2224          2296  3                          (K_IGN_BLKS OR K_ENB_UNDERFLOW OR K_IGN_TABS OR K_ENB_SCALE));
;  2225          2297  3
;  2226          2298  3                      IF NOT .STATUS THEN RETURN (LIB$_INVNBDS);
;  2227          2299  3
;  2228          2300  3                      IF .TEMP_BUF1<15, 1, 0> THEN RETURN (LIB$_INVCVT);
;  2229          2301  3
;  2230          2302  3                      IF CMPD (TEMP_BUF1, .LRGST_D_LU) GTR 0 THEN RETURN (LIB$_INTOVF);
;  2231          2303  3
;  2232          2304  3                      BICPSW (%REF (K_SET_ARITHMETIC_TRAP));
;  2233          2305  3                      CVTRDL (TEMP_BUF1, .OUTPUT);
;  2234          2306  3                      BISPSW (%REF (K_SET_ARITHMETIC_TRAP));
;  2235          2307  2                      END;
;  2236          2308  2
;  2237          2309  2                  [DSC$K_DTYPE_Q] :
;  2238          2310  3                      BEGIN
;  2239          2311  3                      CLASS_S_DESC [DSC$W_LENGTH] = .SRC_INFO [S_LEN];
;  2240          2312  3                      CLASS_S_DESC [DSC$A_POINTER] = .SRC_INFO [S_POINTER];
;  2241          2313  3                      STATUS = OTS$CVT_T_H (CLASS_S_DESC, TEMP_BUF1, 0, -.SCALE,
;  2242          2314  3                          (K_IGN_BLKS OR K_ENB_UNDERFLOW OR K_IGN_TABS OR K_ENB_SCALE));
;  2243          2315  3
;  2244          2316  3                      IF NOT .STATUS THEN RETURN (LIB$_INVNBDS);
;  2245          2317  3
;  2246          2318  3                      CVTRHQ (TEMP_BUF1, .OUTPUT);
;  2247          2319  2                      END;
;  2248          2320  2
;  2249          2321  2                  [INRANGE, OUTRANGE] :
;  2250          2322  2                      RETURN (LIB$_FATERRLIB);
;  2251          2323  2                  TES;                                !For NBDS_LRGINT
;  2252          2324  2
;  2253          2325  2 !<BLF/PAGE>
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;  2255          2326  2
;  2256          2327  2          [K_NBDS_LRGFLT] :
;  2257          2328  3              BEGIN
;  2258          2329  3              CLASS_S_DESC [DSC$W_LENGTH] = .SRC_INFO [S_LEN];
;  2259          2330  3              CLASS_S_DESC [DSC$A_POINTER] = .SRC_INFO [S_POINTER];
;  2260          2331  3
;  2261          2332  3              CASE .DESTINATION [DSC$B_DTYPE] FROM DSC$K_DTYPE_G TO DSC$K_DTYPE_H OF
;  2262          2333  3                  SET
;  2263          2334  3
;  2264          2335  3                  [DSC$K_DTYPE_G] :
;  2265          2336  4                      BEGIN
;  2266          2337  4                      STATUS = OTS$CVT_T_G (CLASS_S_DESC, TEMP_BUF1, 0, -.SCALE,
;  2267          2338  4                          (K_IGN_BLKS OR K_ENB_UNDERFLOW OR K_IGN_TABS OR K_ENB_SCALE));
;  2268          2339  4
;  2269          2340  4                      IF NOT .STATUS THEN RETURN (LIB$_INVNBDS);
;  2270          2341  4
;  2271          2342  4                      OUTPUT [LONG_1] = .TEMP_BUF1 [LONG_1];
;  2272          2343  4                      OUTPUT [LONG_2] = .TEMP_BUF1 [LONG_2];
;  2273          2344  3                      END;
;  2274          2345  3
;  2275          2346  3                  [DSC$K_DTYPE_H] :
;  2276          2347  4                      BEGIN
;  2277          2348  4                      STATUS = OTS$CVT_T_H (CLASS_S_DESC, TEMP_BUF1, 0, -.SCALE,
;  2278          2349  4                          (K_IGN_BLKS OR K_ENB_UNDERFLOW OR K_IGN_TABS OR K_ENB_SCALE));
;  2279          2350  4
;  2280          2351  4                      IF NOT .STATUS THEN RETURN (LIB$_INVNBDS);
;  2281          2352  4
;  2282          2353  4                      CH$MOVE (16, TEMP_BUF1, .OUTPUT);
;  2283          2354  3                      END;
;  2284          2355  3
;  2285          2356  3                  [INRANGE, OUTRANGE] :
;  2286          2357  3                      RETURN (LIB$_FATERRLIB);
;  2287          2358  3                  TES;                                !For NBDS_LRGFLT
;  2288          2359  3
;  2289          2360  2              END;
;  2290          2361  2 !<BLF/PAGE>
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;  2292          2362  2
;  2293          2363  2          [K_NBDS_NBDS] :
;  2294          2364  2
;  2295          2365  2              SELECTONE .DESTINATION [DSC$B_DTYPE] OF
;  2296          2366  2                  SET
;  2297          2367  2
;  2298          2368  2                  [DSC$K_DTYPE_BU, DSC$K_DTYPE_T, DSC$K_DTYPE_VT] :
;  2299          2369  3                      BEGIN
;  2300          2370  3
;  2301          2371  3                      IF .SCALE NEQ 0
;  2302          2372  3                      THEN
;  2303          2373  4                          BEGIN
;  2304          2374  4                          CLASS_S_DESC [DSC$W_LENGTH] = .SRC_INFO [S_LEN];
;  2305          2375  4                          CLASS_S_DESC [DSC$A_POINTER] = .SRC_INFO [S_POINTER];
;  2306          2376  4                          STATUS = OTS$CVT_T_A (CLASS_S_DESC, TEMP_BUF1, 0, -.SCALE,
;  2307          2377  4                              (K_IGN_BLKS OR K_ENB_UNDERFLOW OR K_IGN_TABS OR K_ENB_SCALE));
;  2308          2378  4
;  2309          2379  4                          IF .STATUS
;  2310          2380  4                          THEN
;  2311          2381  5                              BEGIN
;  2312          2382  5                              CLASS_S_DESC [DSC$W_LENGTH] = K_TEMP_BUF_LENGTH;
;  2313          2383  5                              CLASS_S_DESC [DSC$A_POINTER] = TEMP_BUF2;
;  2314          2384  5
;  2315          2385  5                              IF .DST_INFO [D_LEN] - 9 LEQ 0
;  2316          2386  5                              THEN
;  2317          2387  5                                  DIGITS_IN_FRACT = 33
;  2318          2388  5                              ELSE
;  2319          2389  5                                  DIGITS_IN_FRACT = MIN (33, .DST_INFO [D_LEN] - 9);
;  2320          2390  5
;  2321          2391  5                              STATUS = FOR$CVT_H_TE (TEMP_BUF1, CLASS_S_DESC, .DIGITS_IN_FRACT, 0, 4);
;  2322          2392  5
;  2323          2393  5                              IF NOT .STATUS THEN RETURN (LIB$_FATERRLIB);
;  2324          2394  5
;  2325          2395  5                              BUF_OFFSET = CH$FIND_NOT_CH (K_TEMP_BUF_LENGTH, TEMP_BUF2, %C' ') - TEMP_BUF2;
;  2326          2396  5                              FINAL_LEN = K_TEMP_BUF_LENGTH - .BUF_OFFSET;
;  2327          2397  5                              OUTPUT_STR_LEN = .FINAL_LEN;
;  2328          2398  5                              STATUS = LIB$SCOPY_R_DX6 (.FINAL_LEN, TEMP_BUF2 + .BUF_OFFSET, .DESTINATION);
;  2329          2399  5
;  2330          2400  5                              IF .STATUS EQL LIB$_STRTRU THEN RETURN (LIB$_OUTSTRTRU);
;  2331          2401  5
;  2332          2402  5                              IF NOT .STATUS THEN RETURN (.STATUS);
;  2333          2403  5
;  2334          2404  5                              END
;  2335          2405  4                          ELSE
;  2336          2406  4                              RETURN (LIB$_INVNBDS);
;  2337          2407  4
;  2338          2408  4                          END
;  2339          2409  3                      ELSE
;  2340          2410  4                          BEGIN
;  2341          2411  4                          OUTPUT_STR_LEN = .SOURCE [DSC$W_LENGTH];
;  2342          2412  4                          STATUS = LIB$SCOPY_DXDX6 (.SOURCE, .DESTINATION);
;  2343          2413  4
;  2344          2414  4                          IF .STATUS EQL LIB$_STRTRU THEN RETURN (LIB$_OUTSTRTRU);
;  2345          2415  4
;  2346          2416  4                          IF NOT .STATUS THEN RETURN (.STATUS);
;  2347          2417  4
;  2348          2418  3                          END;
```

```
;  2349          2419  3
;  2350          2420  2                    END;
;  2351          2421  2
;  2352          2422  2                [OTHERWISE] :
;  2353          2423  2                    RETURN (LIB$_FATERRLIB);
;  2354          2424  2                TES;                                !For NBDS_NBDS
;  2355          2425  2
;  2356          2426  2            TES;                                    !End of the main CASE statement.
;  2357          2427  2
;  2358          2428  2 !+
;  2359          2429  2 ! If output string length is requested then supply it.
;  2360          2430  2 !-
;  2361          2431  2
;  2362          2432  2     IF ACTUALCOUNT () GTR 2 THEN (.OUTLEN)<0, 16, 0> = .OUTPUT_STR_LEN;
;  2363          2433  2
;  2364          2434  2 !<BLF/PAGE>
```

```
; 2366          2435  2     RETURN (SS$_NORMAL);
; 2367          2436  1     END;                                    ! End of routine LIB$CVT_DX_DX.


                                                                    .TITLE  LIB$CVTDXDX LIB$CVT_DX_DX  any to any data type
;                                                                                   conversion
                                                                    .IDENT  \1-009\

                                                                    .PSECT  _LIB$CODE,NOWRT,  SHR,  PIC,2

                    00  00  5C  29  67  49  29  04  00000 P.AAA:   .ASCII  <4>\)Ig)\<92><0><0>                                  ;
                                0000FF00  FFFF507F  00008 P.AAB:   .LONG   ^XFFFF507F, ^X0000FF00                              ;
              00000000  00000000  0000FFFE  FFFF4020  00010 P.AAC:   .LONG   -                                                 ;
                                                                              ^XFFFF4020, ^X0000FFFE, ^X00000000, ^X0000-       ;
                                                                              0000                                              ;
                                    00  00  00  0C  00020 P.AAD:   .ASCII  <12><0><0><0>                                      ;
                                00000000  00004220  00024 P.AAE:   .LONG   ^X00004220, ^X00000000                             ;
                                00000000  00004220  0002C P.AAF:   .LONG   ^X00004220, ^X00000000                             ;
                                00000000  00004220  00034 P.AAG:   .LONG   ^X00004220, ^X00000000                             ;
                                00000000  00004220  0003C P.AAH:   .LONG   ^X00004220, ^X00000000                             ;
                                00000000  00004220  00044 P.AAI:   .LONG   ^X00004220, ^X00000000                             ;
                                00000000  00004220  0004C P.AAJ:   .LONG   ^X00004220, ^X00000000                             ;
              00000000  00000000  00000000  40004004  00054 P.AAK:   .LONG   -                                                 ;
                                                                              ^X40004004, ^X00000000, ^X00000000, ^X0000-       ;
                                                                              0000                                              ;
              00000000  00000000  00000000  40004004  00064 P.AAL:   .LONG   -                                                 ;
                                                                              ^X40004004, ^X00000000, ^X00000000, ^X0000-       ;
                                                                              0000                                              ;
              00000000  00000000  00000000  40004004  00074 P.AAM:   .LONG   -                                                 ;
                                                                              ^X40004004, ^X00000000, ^X00000000, ^X0000-       ;
                                                                              0000                                              ;
              00000000  00000000  00000000  40004004  00084 P.AAN:   .LONG   -                                                 ;
                                                                              ^X40004004, ^X00000000, ^X00000000, ^X0000-       ;
                                                                              0000                                              ;
              00000000  00000000  00000000  40004004  00094 P.AAO:   .LONG   -                                                 ;
                                                                              ^X40004004, ^X00000000, ^X00000000, ^X0000-       ;
                                                                              0000                                              ;
              00000000  00000000  00000000  40004004  000A4 P.AAP:   .LONG   -                                                 ;
                                                                              ^X40004004, ^X00000000, ^X00000000, ^X0000-       ;
                                                                              0000                                              ;
              00000000  00000000  00000000  40004004  000B4 P.AAQ:   .LONG   -                                                 ;
                                                                              ^X40004004, ^X00000000, ^X00000000, ^X0000-       ;
                                                                              0000                                              ;
              00000000  00000000  00000000  40004004  000C4 P.AAR:   .LONG   -                                                 ;
                                                                              ^X40004004, ^X00000000, ^X00000000, ^X0000-       ;
                                                                              0000                                              ;
                                00000000  00004220  000D4 P.AAS:   .LONG   ^X00004220, ^X00000000                             ;
                                00000000  00004220  000DC P.AAT:   .LONG   ^X00004220, ^X00000000                             ;
                                00000000  00004220  000E4 P.AAU:   .LONG   ^X00004220, ^X00000000                             ;
                                00000000  00004220  000EC P.AAV:   .LONG   ^X00004220, ^X00000000                             ;
              00000000  C0000000  00000000  40004004  000F4 P.AAW:   .LONG   -                                                 ;
                                                                              ^X40004004, ^X00000000, ^X00000000, ^X0000-       ;
                                                                              0000                                              ;
              00000000  00000000  00000000  40004004  00104 P.AAX:   .LONG   -                                                 ;
                                                                              ^X40004004, ^X00000000, ^X00000000, ^X0000-       ;
                                                                              0000                                              ;
              00000000  00000000  00000000  40004004  00114 P.AAY:   .LONG   -                                                 ;
```

```
                                                                ^X40004004, ^X00000000, ^X00000000, ^X0000-  ;
                                                                0000
                00000000  00000000  00000000  40004004  00124 P.AAZ:  .LONG    -                            ;
                                                                ^X40004004, ^X00000000, ^X00000000, ^X0000-  ;
                                                                0000
                00000000  00000000  00000000  40004004  00134 P.ABA:  .LONG    -                            ;
                                                                ^X40004004, ^X00000000, ^X00000000, ^X0000-  ;
                                                                0000
                00000000  00000000  00000000  40004004  00144 P.ABB:  .LONG    -                            ;
                                                                ^X40004004, ^X00000000, ^X00000000, ^X0000-  ;
                                                                0000

                                                        .EXTRN  LIB$_INTOVF, LIB$_FLTOVF
                                                        .EXTRN  LIB$_DECOVF, LIB$_FLTUND
                                                        .EXTRN  LIB$_ROPRAND, LIB$_INVCVT
                                                        .EXTRN  LIB$_INVDTYDSC, LIB$_INVCLADSC
                                                        .EXTRN  LIB$_INVCLADTY, LIB$_INVNBDS
                                                        .EXTRN  LIB$_DESSTROVF, LIB$_OUTSTRTRU
                                                        .EXTRN  LIB$_FATERRLIB, LIB$_STRTRU
                                                        .EXTRN  LIB$$FIND_CVT_PATH
                                                        .EXTRN  LIB$STOP, OTS$CVT_L_TI
                                                        .EXTRN  OTS$CVT_T_D, OTS$CVT_T_G
                                                        .EXTRN  OTS$CVT_T_H, FOR$CVT_D_TE
                                                        .EXTRN  FOR$CVT_D_TF, FOR$CVT_R_TE
                                                        .EXTRN  FOR$CVT_H_TF, LIB$SCOPY_R_DX6
                                                        .EXTRN  LIB$SCOPY_DXDX6
                                                        .EXTRN  MTH$CVT_D_G, LIB$$CVT_CVTLB_R1
                                                        .EXTRN  LIB$$CVT_CVTLW_R1
                                                        .EXTRN  LIB$$CVT_CVTLH_R1
                                                        .EXTRN  LIB$$CVT_CVTRHO_R1
                                                        .EXTRN  LIB$$CVT_MULH2_R1
                                                        .EXTRN  LIB$$CVT_DIVH2_R1
                                                        .EXTRN  LIB$$CVT_CVTROOD_R1
                                                        .EXTRN  LIB$$CVT_CVTROUH_R1
                                                        .EXTRN  LIB$$CVT_CVTRDQ_R1
                                                        .EXTRN  LIB$$CVT_CVTDH_R1
                                                        .EXTRN  LIB$$CVT_CVTRHL_R1
                                                        .EXTRN  LIB$$CVT_CVTRHQ_R1
                                                        .EXTRN  LIB$$CVT_CVTHF_R1
                                                        .EXTRN  LIB$$CVT_CVTHD_R1
                                                        .EXTRN  LIB$$CVT_CVTHG_R1
                                                        .EXTRN  LIB$$CVT_CVTGH_R1
                                                        .EXTRN  LIB$$CVT_CMPH_R1
                                                        .EXTRN  LIB$$CVT_SCALE_OU_UP_BY_10_R1
                                                        .EXTRN  LIB$$CVT_SCALE_OU_DOWN_BY_TO_R1
                                                        .EXTRN  LIB$$CVT_MULD2_R1
                                                        .EXTRN  LIB$$CVT_DIVD2_R1
                                                        .EXTRN  LIB$$CVT_ASHP_R1
                                                        .EXTRN  LIB$AB_CVTTP_O, LIB$AB_CVT_O_U
                                                        .EXTRN  LIB$AB_CVTTP_O, LIB$AB_CVT_U_O
                                                        .EXTRN  LIB$AB_CVTPT_U, LIB$AB_CVTPT_O
                                                        .EXTRN  LIB$AB_CVTPT_Z, LIB$AB_CVTTP_Z

                                    0FFC 00000          .ENTRY  LIB$CVT_DX_DX, Save R2,R3,R4,R5,R6,R7,R8,-  ; 0749
                                                                R9,R10,R11                                  ;
5E      FF3C    CE  9E 00002        MOVAB   -196(SP), SP                                                    ;
6D      10DA    CF  DE 00007        MOVAL   306$, (FP)                                                      ; 0754
```

```
                          5B          08   AC  D0 0000C          MOVL    DESTINATION, R11                    ; 1100
                          58          04   AB  D0 00010          MOVL    4(R11), OUTPUT                      ;
  08          00          6E               00  2C 00014          MOVC5   #0, (SP), #0, #8, SRC_INFO          ; 1104
                                      F8   AD     00019                                                      ;
  08          00          6E               00  2C 0001B          MOVC5   #0, (SP), #0, #8, DST_INFO          ; 1105
                                      F0   AD     00020                                                      ;
  20          00          6E               00  2C 00022          MOVC5   #0, (SP), #0, #32, INTMED_DATA      ; 1106
                                      D0   AD     00027                                                      ;
  32          20          6E               00  2C 00029          MOVC5   #0, (SP), #32, #50, TEMP_BUF1       ; 1107
                                      60   AE     0002E                                                      ;
  32          20          6E               00  2C 00030          MOVC5   #0, (SP), #32, #50, TEMP_BUF2       ; 1108
                                      2C   AE     00035                                                      ;
                                      10   AE  D4 00037          CLRL    OUTPUT_STR_LEN                      ; 1109
                    26    AE        010E   8F  B0 0003A          MOVW    #270, CLASS_S_DESC+2                ; 1115
                    0C    AE        FE68   CF  9E 00040          MOVAB   P.AAA, LRGST_P_LU                   ; 1120
                    08    AE        FE6A   CF  9E 00046          MOVAB   P.AAB, LRGST_D_LU                   ; 1121
                    04    AE        FE6C   CF  9E 0004C          MOVAB   P.AAC, LRGST_H_LU                   ; 1122
                          57        FE76   CF  9E 00052          MOVAB   P.AAD, PACK_ZERO                    ; 1123
                    F9    AD          D0   AD  9E 00057          MOVAB   INTMED_DATA, SRC_INFO+1             ; 1130
                    FD    AD               20  B0 0005C          MOVW    #32, SRC_INFO+5                     ; 1131
                                      18   AE  9F 00060          PUSHAB  CVT_PATH                            ; 1142
                                      F0   AD  9F 00063          PUSHAB  DST_INFO                            ;
                                      F8   AD  9F 00066          PUSHAB  SRC_INFO                            ;
                          5A          04   AC  D0 00069          MOVL    SOURCE, R10                         ;
                          7E               5A  7D 0006D          MOVQ    R10, -(SP)                          ;
               00000000G  00               05  FB 00070          CALLS   #5, LIB$$FIND_CVT_PATH              ;
                          6E               50  D0 00077          MOVL    R0, STATUS                          ;
                                           2E  18 0007A          BGEQ    5$                                  ; 1151
              06 FFFFFFF9 8F               6E  CF 0007C          CASEL   STATUS, #-7, #6                     ; 1168
 001E       0016        000E        101B          00084 1$:      .WORD   299$-1$,-                           ;
            0016        000E        001E          0008C                  2$-1$,-                             ;
                                                                         3$-1$,-                             ;
                                                                         4$-1$,-                             ;
                                                                         4$-1$,-                             ;
                                                                         2$-1$,-                             ;
                                                                         3$-1$                               ;
                        50 00000000G  8F   D0 00092 2$:          MOVL    #LIB$_INVDTYDSC, R0                 ;
                                           04 00099              RET                                         ;
                        50 00000000G  8F   D0 0009A 3$:          MOVL    #LIB$_INVCLADSC, R0                 ;
                                           04 000A1              RET                                         ;
                        50 00000000G  8F   D0 000A2 4$:          MOVL    #LIB$_INVCLADTY, R0                 ;
                                           04 000A9              RET                                         ;
                              00E0    8F   B8 000AA 5$:          BISPSW  #224                                ; 1177
                          50          F8   AD  98 000AE          CVTBL   SRC_INFO, R0                        ; 1178
                          51          F0   AD  98 000B2          CVTBL   DST_INFO, R1                        ;
            20    AE      50               51  C3 000B6          SUBL3   R1, R0, SCALE                       ;
                          59          02   AB  9E 000BB          MOVAB   2(R11), R9                          ; 1234
                          56          18   AE  D0 000BF          MOVL    CVT_PATH, R6                        ; 1226
              23                           01  56  CF 000C3      CASEL   R6, #1, #35                         ;
 02B1       0174        00A9        0048          000C7 6$:      .WORD   7$-6$,-                             ;
 00A9       055F        083A        042C          000CF                  17$-6$,-                            ;
 083A       061A        02B1        0174          000D7                  32$-6$,-                            ;
 02B1       0174        09A3        0937          000DF                  49$-6$,-                            ;
 0AD7       0A86        0A1B        061A          000E7                  70$-6$,-                            ;
 0BA9       061A        02B1        0B50          000EF                  151$-6$,-                           ;
 02B1       0174        0CF2        0C60          000F7                  94$-6$,-                            ;
 0E30       0D9C        083A        042C          000FF                  17$-6$,-                            ;
```

```
    0F2F        061A        0ED2        0174      00107                     32$-6$,-                      ;
                                                                            49$-6$,-                      ;
                                                                            112$-6$,-                     ;
                                                                            151$-6$,-                     ;
                                                                            167$-6$,-                     ;
                                                                            175$-6$,-                     ;
                                                                            32$-6$,-                      ;
                                                                            49$-6$,-                      ;
                                                                            112$-6$,-                     ;
                                                                            186$-6$,-                     ;
                                                                            195$-6$,-                     ;
                                                                            200$-6$,-                     ;
                                                                            209$-6$,-                     ;
                                                                            49$-6$,-                      ;
                                                                            112$-6$,-                     ;
                                                                            217$-6$,-                     ;
                                                                            235$-6$,-                     ;
                                                                            247$-6$,-                     ;
                                                                            32$-6$,-                      ;
                                                                            49$-6$,-                      ;
                                                                            70$-6$,-                      ;
                                                                            151$-6$,-                     ;
                                                                            255$-6$,-                     ;
                                                                            269$-6$,-                     ;
                                                                            32$-6$,-                      ;
                                                                            283$-6$,-                     ;
                                                                            112$-6$,-                     ;
                                                                            291$-6$                       ;
                                    20    AE   D5 0010F 7$:        TSTL     SCALE                         ; 1231
                                          09   15 00112            BLEQ     8$                            ;
                              D0    AD    0A   C4 00114            MULL2    #10, INTMED_DATA              ;
                                    20    AE   D7 00118            DECL     SCALE                         ;
                                          F2   11 0011B            BRB      7$                            ;
                                          09   18 0011D 8$:        BGEQ     9$                            ;
                              D0    AD    0A   C6 0011F            DIVL2    #10, INTMED_DATA              ;
                                    20    AE   D6 00123            INCL     SCALE                         ;
                                          F5   11 00126            BRB      8$                            ;
                    06          02        69   8F 00128 9$:        CASEB    (R9), #2, #6                  ; 1234
    0FA3          0FA3        0026      0011      0012C 10$:       .WORD    11$-10$,-                     ;
                  05AE        058B      0576      00134                     12$-10$,-                     ;
                                                                            303$-10$,-                    ;
                                                                            303$-10$,-                    ;
                                                                            105$-10$,-                    ;
                                                                            107$-10$,-                    ;
                                                                            110$-10$                      ;
                                        0F92   31 0013A            BRW      303$                          ; 1265
                                    D0    AD   D5 0013D 11$:       TSTL     INTMED_DATA                   ; 1240
                                          13   19 00140            BLSS     13$                           ;
                                50  D0    AD   D0 00142            MOVL     INTMED_DATA, R0               ; 1242
                                68        50   90 00146            MOVB     R0, (OUTPUT)                  ;
                    000000FF    8F        50   D1 00149            CMPL     R0, #255                      ;
                                          16   11 00150            BRB      15$                           ;
                                    D0    AD   D5 00152 12$:       TSTL     INTMED_DATA                   ; 1249
                                          03   18 00155 13$:       BGEQ     14$                           ;
                                        0DDC   31 00157            BRW      273$                          ;
                                50  D0    AD   D0 0015A 14$:       MOVL     INTMED_DATA, R0               ; 1251
                                68        50   B0 0015E            MOVW     R0, (OUTPUT)                  ;
```

```
                  0000FFFF    8F              50  D1 00161         CMPL    R0, #65535                          ;
                                              03  1B 00168 15$:    BLEQU   16$                                 ;
                                            0DE0  31 0016A         BRW     275$                                ;
                                            0F67  31 0016D 16$:    BRW     304$                                ;
                              02              56  D1 00170 17$:    CMPL    R6, #2                              ; 1277
                                              3B  12 00173         BNEQ    21$                                 ;
                                        D0    AD  D5 00175         TSTL    INTMED_DATA                         ; 1278
                                              11  18 00178         BGEQ    19$                                 ;
                              50        D0    AD  D0 0017A         MOVL    INTMED_DATA, R0                     ;
                                              03  18 0017E         BGEQ    18$                                 ;
                              50              50  CE 00180         MNEGL   R0, R0                              ;
                        D0    AD              50  D0 00183 18$:    MOVL    R0, INTMED_DATA                     ;
                        FF    AD              01  88 00187         BISB2   #1, SRC_INFO+7                      ;
                                        20    AE  D5 0018B 19$:    TSTL    SCALE                               ;
                                              0F  15 0018E         BLEQ    20$                                 ;
                              50        D0    AD  9E 00190         MOVAB   INTMED_DATA, R0                     ;
                                 00000000G    00  16 00194         JSB     LIB$$CVT_SCALE_OU_UP_BY_10_R1       ;
                                        20    AE  D7 0019A         DECL    SCALE                               ;
                                              EC  11 0019D         BRB     19$                                 ;
                                              39  18 0019F 20$:    BGEQ    24$                                 ;
                              50        D0    AD  9E 001A1         MOVAB   INTMED_DATA, R0                     ;
                                 00000000G    00  16 001A5         JSB     LIB$$CVT_SCALE_OU_DOWN_BY_10_R1     ;
                                        20    AE  D6 001AB         INCL    SCALE                               ;
                                              EF  11 001AE         BRB     20$                                 ;
                              08              56  D1 001B0 21$:    CMPL    R6, #8                              ; 1282
                                              25  12 001B3         BNEQ    24$                                 ;
                                        20    AE  D5 001B5 22$:    TSTL    SCALE                               ; 1283
                                              0F  15 001B8         BLEQ    23$                                 ;
                              50        D0    AD  9E 001BA         MOVAB   INTMED_DATA, R0                     ;
                                 00000000G    00  16 001BE         JSB     LIB$$CVT_SCALE_OU_UP_BY_10_R1       ;
                                        20    AE  D7 001C4         DECL    SCALE                               ;
                                              EC  11 001C7         BRB     22$                                 ;
                                              0F  18 001C9 23$:    BGEQ    24$                                 ;
                              50        D0    AD  9E 001CB         MOVAB   INTMED_DATA, R0                     ;
                                 00000000G    00  16 001CF         JSB     LIB$$CVT_SCALE_OU_DOWN_BY_10_R1     ;
                                        20    AE  D6 001D5         INCL    SCALE                               ;
                                              EF  11 001D8         BRB     23$                                 ;
                              04              69  91 001DA 24$:    CMPB    (R9), #4                            ; 1291
                                              16  12 001DD         BNEQ    26$                                 ;
                              03        FF    AD  E9 001DF         BLBC    SRC_INFO+7, 25$                     ; 1294
                                            0D50  31 001E3         BRW     273$                                ;
                  50    D4    AD        D8    AD  C9 001E6 25$:    BISL3   INTMED_DATA+8, INTMED_DATA+4, R0    ; 1296
                              50        DC    AD  C8 001EC         BISL2   INTMED_DATA+12, R0                  ;
                                              1A  12 001F0         BNEQ    28$                                 ;
                                            04E5  31 001F2         BRW     110$                                ;
                              09              69  91 001F5 26$:    CMPB    (R9), #9                            ; 1303
                                              03  13 001F8         BEQL    27$                                 ;
                                            0ED2  31 001FA         BRW     303$                                ;
                  50    D8    AD        DC    AD  C9 001FD 27$:    BISL3   INTMED_DATA+12, INTMED_DATA+8, R0   ; 1306
      51    D7    AD          01              07  EF 00203         EXTZV   #7, #1, INTMED_DATA+7, R1           ;
                              50              51  C8 00209         BISL2   R1, R0                              ;
                                              03  13 0020C 28$:    BEQL    29$                                 ;
                                            0D3C  31 0020E         BRW     275$                                ;
                              1F        FF    AD  E9 00211 29$:    BLBC    SRC_INFO+7, 31$                     ; 1310
                        D0    AD        D0    AD  D2 00215         MCOML   INTMED_DATA, INTMED_DATA            ; 1313
                        D4    AD        D4    AD  D2 0021A         MCOML   INTMED_DATA+4, INTMED_DATA+4        ; 1314
                  FFFFFFFF    8F        D0    AD  D1 0021F         CMPL    INTMED_DATA, #-1                    ; 1316
```

```
                                      08  12 00227            BNEQ    30$                                 ;
                              D0      AD  D4 00229            CLRL    INTMED_DATA                         ; 1319
                              D4      AD  D6 0022C            INCL    INTMED_DATA+4                       ; 1320
                                      03  11 0022F            BRB     31$                                 ; 1316
                              D0      AD  D6 00231  30$:      INCL    INTMED_DATA                         ; 1323
                     68       D0      AD  7D 00234  31$:      MOVQ    INTMED_DATA, (OUTPUT)               ; 1327
                                    0E9C  31 00238            BRW     304$                                ; 1288
                     03               56  D1 0023B  32$:      CMPL    R6, #3                              ; 1344
                                      34  12 0023E            BNEQ    35$                                 ;
          D0         AD       D0      AD  6E 00240            CVTLD   INTMED_DATA, INTMED_DATA            ; 1345
                              20      AE  D5 00245  33$:      TSTL    SCALE                               ;
                                      14  15 00248            BLEQ    34$                                 ;
                     51       D0      AD  9E 0024A            MOVAB   INTMED_DATA, R1                     ;
                     50     FC7E      CF  9E 0024E            MOVAB   P.AAE, R0                           ;
                       00000000G      00  16 00253            JSB     LIB$$CVT_MULD2_R1                   ;
                              20      AE  D7 00259            DECL    SCALE                               ;
                                      E7  11 0025C            BRB     33$                                 ;
                                      7A  18 0025E  34$:      BGEQ    40$                                 ;
                     51       D0      AD  9E 00260            MOVAB   INTMED_DATA, R1                     ;
                     50     FC70      CF  9E 00264            MOVAB   P.AAF, R0                           ;
                       00000000G      00  16 00269            JSB     LIB$$CVT_DIVD2_R1                   ;
                              20      AE  D6 0026F            INCL    SCALE                               ;
                                      EA  11 00272            BRB     34$                                 ;
                     09               56  D1 00274  35$:      CMPL    R6, #9                              ; 1349
                                      43  12 00277            BNEQ    38$                                 ;
                     51       60      AE  9E 00279            MOVAB   TEMP_BUF1, R1                       ; 1350
                     50       D0      AD  9E 0027D            MOVAB   INTMED_DATA, R0                     ;
                       00000000G      00  16 00281            JSB     LIB$$CVT_CVTROUD_R1                 ;
 D0      AD          60       AE          08  28 00287            MOVC3   #8, TEMP_BUF1, INTMED_DATA          ;
                              20      AE  D5 0028D  36$:      TSTL    SCALE                               ;
                                      14  15 00290            BLEQ    37$                                 ;
                     51       D0      AD  9E 00292            MOVAB   INTMED_DATA, R1                     ;
                     50     FC46      CF  9E 00296            MOVAB   P.AAG, R0                           ;
                       00000000G      00  16 0029B            JSB     LIB$$CVT_MULD2_R1                   ;
                              20      AE  D7 002A1            DECL    SCALE                               ;
                                      E7  11 002A4            BRB     36$                                 ;
                                      32  18 002A6  37$:      BGEQ    40$                                 ;
                     51       D0      AD  9E 002A8            MOVAB   INTMED_DATA, R1                     ;
                     50     FC38      CF  9E 002AC            MOVAB   P.AAH, R0                           ;
                       00000000G      00  16 002B1            JSB     LIB$$CVT_DIVD2_R1                   ;
                              20      AE  D6 002B7            INCL    SCALE                               ;
                                      EA  11 002BA            BRB     37$                                 ;
                     0F               56  D1 002BC  38$:      CMPL    R6, #15                             ; 1354
                                      32  12 002BF            BNEQ    42$                                 ;
                              20      AE  D5 002C1  39$:      TSTL    SCALE                               ; 1355
                                      14  15 002C4            BLEQ    40$                                 ;
                     51       D0      AD  9E 002C6            MOVAB   INTMED_DATA, R1                     ;
                     50     FC22      CF  9E 002CA            MOVAB   P.AAI, R0                           ;
                       00000000G      00  16 002CF            JSB     LIB$$CVT_MULD2_R1                   ;
                              20      AE  D7 002D5            DECL    SCALE                               ;
                                      E7  11 002D8            BRB     39$                                 ;
                                      03  19 002DA  40$:      BLSS    41$                                 ;
                                    0081  31 002DC            BRW     44$                                 ;
                     51       D0      AD  9E 002DF  41$:      MOVAB   INTMED_DATA, R1                     ;
                     50     FC11      CF  9E 002E3            MOVAB   P.AAJ, R0                           ;
                       00000000G      00  16 002E8            JSB     LIB$$CVT_DIVD2_R1                   ;
                              20      AE  D6 002EE            INCL    SCALE                               ;
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                                          E7  11 002F1         BRB     40$                                              ;
                       1B                 56  D1 002F3  42$:   CMPL    R6, #27                                          ; 1359
                                          39  12 002F6         BNEQ    43$                                              ;
                  1C   AE         FD      AD  3C 002F8         MOVZWL  SRC_INFO+5, NO_DIGITS                            ; 1360
   60   AE   1C   AE   D0         AD      1C  AE 08 002FD      CVTPS   NO_DIGITS, INTMED_DATA, NO_DIGITS, -             ;
                                                               TEMP_BUF1                                        ;
             24   AE   1C         AE      01  A1 00306         ADDW3   #1, NO_DIGITS, CLASS_S_DESC                      ;
                       28   AE    60      AE  9E 0030C         MOVAB   TEMP_BUF1, CLASS_S_DESC+4                        ;
                            7E    44      8F  9A 00311         MOVZBL  #68, -(SP)                                       ;
                            7E    24      AE  CE 00315         MNEGL   SCALE, -(SP)                                     ;
                                          7E  D4 00319         CLRL    -(SP)                                            ;
                                  D0      AD  9F 0031B         PUSHAB  INTMED_DATA                                      ;
                                  34      AE  9F 0031E         PUSHAB  CLASS_S_DESC                                     ;
                  00000000G  00           05  FB 00321         CALLS   #5, OTS$CVT_T_D                                  ;
                             6E           50  D0 00328         MOVL    R0, STATUS                                       ;
                             32           6E  E8 0032B         BLBS    STATUS, 44$                                      ;
                                        0182  31 0032E         BRW     62$                                              ;
                             21           56  D1 00331  43$:   CMPL    R6, #33                                          ; 1364
                                          2A  12 00334         BNEQ    44$                                              ;
                        24   AE   FD      AD  B0 00336         MOVW    SRC_INFO+5, CLASS_S_DESC                         ; 1366
                        28   AE   F9      AD  D0 0033B         MOVL    SRC_INFO+1, CLASS_S_DESC+4                       ; 1367
                             7E   55      8F  9A 00340         MOVZBL  #85, -(SP)                                       ; 1369
                             7E   24      AE  CE 00344         MNEGL   SCALE, -(SP)                                     ; 1368
                                          7E  D4 00348         CLRL    -(SP)                                            ;
                                  D0      AD  9F 0034A         PUSHAB  INTMED_DATA                                      ;
                                  34      AE  9F 0034D         PUSHAB  CLASS_S_DESC                                     ;
                  00000000G  00           05  FB 00350         CALLS   #5, OTS$CVT_T_D                                  ;
                             6E           50  D0 00357         MOVL    R0, STATUS                                       ;
                             03           6E  E8 0035A         BLBS    STATUS, 44$                                      ; 1371
                                        0D3F  31 0035D         BRW     299$                                             ;
             01              0A           69  8F 00360  44$:   CASEB   (R9), #10, #1                                    ; 1376
                          000D          0007     00364  45$:   .WORD   46$-45$,-                                        ;
                                                                       47$-45$                                          ;
                                        0D64  31 00368         BRW     303$                                             ; 1397
                             68   D0      AD  76 0036B  46$:   CVTDF   INTMED_DATA, (OUTPUT)                            ; 1381
                                          04  11 0036F         BRB     48$                                              ; 1383
                             68   D0      AD  7D 00371  47$:   MOVQ    INTMED_DATA, (OUTPUT)                            ; 1389
                                        016F  31 00375  48$:   BRW     68$                                              ; 1392
                             04           56  D1 00378  49$:   CMPL    R6, #4                                           ; 1409
                                          3D  12 0037B         BNEQ    52$                                              ;
                             51   D0      AD  9E 0037D         MOVAB   INTMED_DATA, R1                                  ; 1410
                             50   D0      AD  9E 00381         MOVAB   INTMED_DATA, R0                                  ;
                           00000000G      00  16 00385         JSB     LIB$$CVT_CVTLH_R1                                ;
                                  20      AE  D5 0038B  50$:   TSTL    SCALE                                            ;
                                          14  15 0038E         BLEQ    51$                                              ;
                             51   D0      AD  9E 00390         MOVAB   INTMED_DATA, R1                                  ;
                             50   FB68    CF  9E 00394         MOVAB   P.AAK, R0                                        ;
                           00000000G      00  16 00399         JSB     LIB$$CVT_MULH2_R1                                ;
                                  20      AE  D7 0039F         DECL    SCALE                                            ;
                                          E7  11 003A2         BRB     50$                                              ;
                                          46  18 003A4  51$:   BGEQ    54$                                              ;
                             51   D0      AD  9E 003A6         MOVAB   INTMED_DATA, R1                                  ;
                             50   FB62    CF  9E 003AA         MOVAB   P.AAL, R0                                        ;
                           00000000G      00  16 003AF         JSB     LIB$$CVT_DIVH2_R1                                ;
                                  20      AE  D6 003B5         INCL    SCALE                                            ;
                                          EA  11 003B8         BRB     51$                                              ;
                             0A           56  D1 003BA  52$:   CMPL    R6, #10                                          ; 1414
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                                    43  12 003BD       BNEQ    55$                                    ;
                     51        60   AE  9E 003BF       MOVAB   TEMP_BUF1, R1                          ; 1415
                     50        D0   AD  9E 003C3       MOVAB   INTMED_DATA, R0                        ;
                        00000000G   00  16 003C7       JSB     LIB$$CVT_CVTROUH_R1                    ;
     D0   AD       60   AE          10  28 003CD       MOVC3   #16, TEMP_BUF1, INTMED_DATA            ;
                               20   AE  D5 003D3 53$:  TSTL    SCALE                                  ;
                                    14  15 003D6       BLEQ    54$                                    ;
                     51        D0   AD  9E 003D8       MOVAB   INTMED_DATA, R1                        ;
                     50      FB40   CF  9E 003DC       MOVAB   P.AAM, R0                              ;
                        00000000G   00  16 003E1       JSB     LIB$$CVT_MULH2_R1                      ;
                               20   AE  D7 003E7       DECL    SCALE                                  ;
                                    E7  11 003EA       BRB     53$                                    ;
                                    74  18 003EC 54$:  BGEQ    60$                                    ;
                     51        D0   AD  9E 003EE       MOVAB   INTMED_DATA, R1                        ;
                     50      FB3A   CF  9E 003F2       MOVAB   P.AAN, R0                              ;
                        00000000G   00  16 003F7       JSB     LIB$$CVT_DIVH2_R1                      ;
                               20   AE  D6 003FD       INCL    SCALE                                  ;
                                    EA  11 00400       BRB     54$                                    ;
                     10             56  D1 00402 55$:  CMPL    R6, #16                                ; 1419
                                    3D  12 00405       BNEQ    58$                                    ;
                     51        D0   AD  9E 00407       MOVAB   INTMED_DATA, R1                        ; 1420
                     50        D0   AD  9E 0040B       MOVAB   INTMED_DATA, R0                        ;
                        00000000G   00  16 0040F       JSB     LIB$$CVT_CVTDH_R1                      ;
                               20   AE  D5 00415 56$:  TSTL    SCALE                                  ;
                                    14  15 00418       BLEQ    57$                                    ;
                     51        D0   AD  9E 0041A       MOVAB   INTMED_DATA, R1                        ;
                     50      FB1E   CF  9E 0041E       MOVAB   P.AAO, R0                              ;
                        00000000G   00  16 00423       JSB     LIB$$CVT_MULH2_R1                      ;
                               20   AE  D7 00429       DECL    SCALE                                  ;
                                    E7  11 0042C       BRB     56$                                    ;
                                    32  18 0042E 57$:  BGEQ    60$                                    ;
                     51        D0   AD  9E 00430       MOVAB   INTMED_DATA, R1                        ;
                     50      FB18   CF  9E 00434       MOVAB   P.AAP, R0                              ;
                        00000000G   00  16 00439       JSB     LIB$$CVT_DIVH2_R1                      ;
                               20   AE  D6 0043F       INCL    SCALE                                  ;
                                    EA  11 00442       BRB     57$                                    ;
                     16             56  D1 00444 58$:  CMPL    R6, #22                                ; 1424
                                    2F  12 00447       BNEQ    61$                                    ;
                               20   AE  D5 00449 59$:  TSTL    SCALE                                  ; 1425
                                    14  15 0044C       BLEQ    60$                                    ;
                     51        D0   AD  9E 0044E       MOVAB   INTMED_DATA, R1                        ;
                     50      FB0A   CF  9E 00452       MOVAB   P.AAQ, R0                              ;
                        00000000G   00  16 00457       JSB     LIB$$CVT_MULH2_R1                      ;
                               20   AE  D7 0045D       DECL    SCALE                                  ;
                                    E7  11 00460       BRB     59$                                    ;
                                    64  18 00462 60$:  BGEQ    64$                                    ;
                     51        D0   AD  9E 00464       MOVAB   INTMED_DATA, R1                        ;
                     50      FB04   CF  9E 00468       MOVAB   P.AAR, R0                              ;
                        00000000G   00  16 0046D       JSB     LIB$$CVT_DIVH2_R1                      ;
                               20   AE  D6 00473       INCL    SCALE                                  ;
                                    EA  11 00476       BRB     60$                                    ;
                     1C             56  D1 00478 61$:  CMPL    R6, #28                                ; 1429
                                    4B  12 0047B       BNEQ    64$                                    ;
                1C   AE        FD   AD  3C 0047D       MOVZWL  SRC_INFO+5, NO_DIGITS                  ; 1430
  60   AE   1C   AE   D0   AD  1C   AE  08 00482       CVTPS   NO_DIGITS, INTMED_DATA, NO_DIGITS, -   ;
                                                               TEMP_BUF1                              ;
       24   AE   1C   AE            01  A1 0048B       ADDW3   #1, NO_DIGITS, CLASS_S_DESC            ;
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                        28   AE        60   AE   9E 00491          MOVAB   TEMP_BUF1, CLASS_S_DESC+4                    ;
                             7E        44   8F   9A 00496          MOVZBL  #68, -(SP)                                    ;
                             7E        24   AE   CE 0049A          MNEGL   SCALE, -(SP)                                  ;
                                         7E   D4   0049E          CLRL    -(SP)                                         ;
                                   D0    AD   9F   004A0          PUSHAB  INTMED_DATA                                   ;
                                   34    AE   9F   004A3          PUSHAB  CLASS_S_DESC                                  ;
                  00000000G        00        05   FB   004A6          CALLS   #5, OTS$CVT_T_H                               ;
                             6E             50   D0   004AD          MOVL    R0, STATUS                                    ;
                             15             6E   E8   004B0          BLBS    STATUS, 64$                                   ;
                                   20    AE   D5   004B3 62$:       TSTL    SCALE                                         ;
                                         08   18   004B6          BGEQ    63$                                           ;
                             50 00000000G   8F   D0   004B8          MOVL    #LIB$_FLTUND, R0                              ;
                                         04   004BF                RET                                                   ;
                             50 00000000G   8F   D0   004C0 63$:       MOVL    #LIB$_FLTOVF, R0                              ;
                                         04   004C7                RET                                                   ;
                  01              1B             69   8F   004C8 64$:       CASEB   (R9), #27, #1                         ; 1435
                            0016                0007        004CC 65$:       .WORD   66$-65$,-                             ;
                                                                                67$-65$                                   ;
                                         0BFC   31   004D0          BRW     303$                                          ; 1455
                             50        D0    AD   9E   004D3 66$:       MOVAB   INTMED_DATA, R0                       ; 1440
                             51             58   D0   004D7          MOVL    OUTPUT, R1                                    ;
                                00000000G   00   16   004DA          JSB     LIB$$CVT_CVTHG_R1                             ;
                                         05   11   004E0          BRB     68$                                           ; 1442
                  68        D0    AD             10   28   004E2 67$:       MOVC3   #16, INTMED_DATA, (OUTPUT)            ; 1448
                             05        FF    AD   E9   004E7 68$:       BLBC    SRC_INFO+7, 69$                       ; 1450
                        01   A8        80    8F   88   004EB          BISB2   #128, 1(OUTPUT)                       ;
                                      0BE4   31   004F0 69$:       BRW     304$                                          ; 1226
                             05             56   D1   004F3 70$:       CMPL    R6, #5                                        ; 1467
                                         16   12   004F6          BNEQ    72$                                           ;
                                   D0    AD   D5   004F8          TSTL    INTMED_DATA                                   ; 1468
                                         04   18   004FB          BGEQ    71$                                           ;
                        FF   AD             01   88   004FD          BISB2   #1, SRC_INFO+7                        ;
                        1C   AE             1F   D0   00501 71$:       MOVL    #31, NO_DIGITS                        ;
                  D0    AD   1C   AE        D0   AD   F9 00505          CVTLP   INTMED_DATA, NO_DIGITS, INTMED_DATA           ;
                                         20   11   0050C          BRB     73$                                           ;
                             1D             56   D1   0050E 72$:       CMPL    R6, #29                                       ; 1472
                                         49   12   00511          BNEQ    74$                                           ;
                        1C   AE        FD    AD   3C   00513          MOVZWL  SRC_INFO+5, NO_DIGITS                 ; 1473
            67          01   D0        AD    1C   AE   37 00518          CMPP4   NO_DIGITS, INTMED_DATA, #1, (PACK_ZERO)       ;
                                         54   DC   0051F          MOVPSL  R4                                            ;
            54          54             02        02   EF   00521          EXTZV   #2, #2, R4, R4                        ;
                                         54   D7   00526          DECL    R4                                            ;
                                         04   15   00528          BLEQ    73$                                           ;
                        FF   AD             01   88   0052A          BISB2   #1, SRC_INFO+7                        ;
                                   20    AE   D5   0052E 73$:       TSTL    SCALE                                         ;
                                         29   13   00531          BEQL    74$                                           ;
                  60    AE   D0        AD    1C   AE   34 00533          MOVP    NO_DIGITS, INTMED_DATA, TEMP_BUF1             ;
                             55        D0    AD   9E   0053A          MOVAB   INTMED_DATA, R5                       ;
                             54        1C    AE   9E   0053E          MOVAB   NO_DIGITS, R4                         ;
                        14   AE             05   D0   00542          MOVL    #5, 20(SP)                                    ;
                             53        14    AE   9E   00546          MOVAB   20(SP), R3                            ;
                             52        60    AE   9E   0054A          MOVAB   TEMP_BUF1, R2                         ;
                             51        1C    AE   9E   0054E          MOVAB   NO_DIGITS, R1                         ;
                             50        20    AE   9E   00552          MOVAB   SCALE, R0                             ;
                                00000000G   00   16   00556          JSB     LIB$$CVT_ASHP_R1                              ;
                        06             0F        69   8F   0055C 74$:       CASEB   (R9), #15, #6                         ; 1478
            006D        003C             0026             0011        00560 75$:       .WORD   76$-75$,-                             ;
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                 00B6          0097          0097   00568                   78$-75$,-                                      ;
                                                                            81$-75$,-                                      ;
                                                                            84$-75$,-                                      ;
                                                                            88$-75$,-                                      ;
                                                                            88$-75$,-                                      ;
                                                                            92$-75$                                        ;
                                             0B5E  31 0056E          BRW    303$                                           ; 1535
                               03       FF     AD  E9 00571  76$:    BLBC   SRC_INFO+7, 77$                                ; 1484
                                             09BE  31 00575          BRW    273$                                           ;
       6B 00000000G  00   D0   AD       1C     AE  24 00578  77$:    CVTPT  NO_DIGITS, INTMED_DATA, LIB$AB_CVTPT_U, -      ; 1486
                                               68     00583                 (R11), (OUTPUT)                                ;
                                               6F  11 00584          BRB    87$                                            ; 1478
                                               6B  B5 00586  78$:    TSTW   (R11)                                          ; 1493
                                               04  12 00588          BNEQ   79$                                            ;
                                               50  D4 0058A          CLRL   R0                                             ;
                                               05  11 0058C          BRB    80$                                            ;
                               50              6B  3C 0058E  79$:    MOVZWL (R11), R0                                      ;
                                               50  D7 00591          DECL   R0                                             ;
       68            50   D0   AD       1C     AE  08 00593  80$:    CVTPS  NO_DIGITS, INTMED_DATA, R0, (OUTPUT)           ; 1495
                                               78  11 0059A          BRB    91$                                            ; 1490
       6B 00000000G  00   D0   AD       1C     AE  24 0059C  81$:    CVTPT  NO_DIGITS, INTMED_DATA, LIB$AB_CVTPT_U, -      ; 1499
                                        60     AE     005A7                 (R11), TEMP_BUF1                               ;
                               50       60     AE  9A 005A9          MOVZBL TEMP_BUF1, R0                                  ; 1500
                               50 00000000G0040    9E 005AD          MOVAB  LIB$AB_CVT_U_0-48[R0], R0                      ;
                               06       FF     AD  E9 005B5          BLBC   SRC_INFO+7, 82$                                ;
                               50       0A     A0  D0 005B9          MOVL   10(R0), R0                                     ;
                                               03  11 005BD          BRB    83$                                            ;
                               50              60  D0 005BF  82$:    MOVL   (R0), R0                                       ; 1501
                          60   AE              50  90 005C2  83$:    MOVB   R0, TEMP_BUF1                                  ; 1500
                     68   60   AE              6B  28 005C6          MOVC3  (R11), TEMP_BUF1, (OUTPUT)                     ; 1502
                                               57  11 005CB          BRB    93$                                            ; 1478
                                               6B  B5 005CD  84$:    TSTW   (R11)                                          ; 1514
                                               04  12 005CF          BNEQ   85$                                            ;
                                               56  D4 005D1          CLRL   DES_LEN                                        ;
                                               05  11 005D3          BRB    86$                                            ;
                               56              6B  3C 005D5  85$:    MOVZWL (R11), DES_LEN                                 ;
                                               56  D7 005D8          DECL   DES_LEN                                        ;
  60   AE            56   D0   AD       1C     AE  08 005DA  86$:    CVTPS  NO_DIGITS, INTMED_DATA, DES_LEN, TEMP_BUF1     ; 1517
                          D0 AD46       60     AE  90 005E2          MOVB   TEMP_BUF1, INTMED_DATA[DES_LEN]                ; 1518
                D0   AD   61   AE              56  28 005E8          MOVC3  DES_LEN, TEMP_BUF1+1, INTMED_DATA              ; 1519
                                               56  D6 005EE          INCL   R6                                             ; 1520
                     68   D0   AD              56  28 005F0          MOVC3  R6, INTMED_DATA, (OUTPUT)                      ;
                                               2D  11 005F5  87$:    BRB    93$                                            ; 1478
                               13              69  91 005F7  88$:    CMPB   (R9), #19                                      ; 1525
                                               09  12 005FA          BNEQ   89$                                            ;
                               50 00000000G    00  9E 005FC          MOVAB  LIB$AB_CVTPT_O, R0                             ;
                                               07  11 00603          BRB    90$                                            ;
                               50 00000000G    00  9E 00605  89$:    MOVAB  LIB$AB_CVTPT_Z, R0                             ;
       6B            60   D0   AD       1C     AE  24 0060C  90$:    CVTPT  NO_DIGITS, INTMED_DATA, (R0), (R11), -         ; 1526
                                               68     00613                 (OUTPUT)                                       ;
                                               7C  11 00614  91$:    BRB    103$                                           ;
  60   AE            6B   D0   AD       1C     AE  08 00616  92$:    CVTPS  NO_DIGITS, INTMED_DATA, (R11), TEMP_BUF1       ; 1530
  68                 6B   60   AE              6B  09 0061E          CVTSP  (R11), TEMP_BUF1, (R11), (OUTPUT)              ; 1531
                                               6C  11 00624  93$:    BRB    103$                                           ; 1226
                                        20     AE  D5 00626  94$:    TSTL   SCALE                                          ; 1542
                                               0F  15 00629          BLEQ   95$                                            ;
                               50       D0     AD  9E 0062B          MOVAB  INTMED_DATA, R0                                ;
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                               00000000G  00  16 0062F        JSB     LIB$$CVT_SCALE_OU_UP_BY_10_R1                 ;
                                      20  AE  D7 00635        DECL    SCALE                                         ;
                                          EC  11 00638        BRB     94$                                           ;
                                          0F  18 0063A 95$:   BGEQ    96$                                           ;
                        50            D0  AD  9E 0063C        MOVAB   INTMED_DATA, R0                               ;
                               00000000G  00  16 00640        JSB     LIB$$CVT_SCALE_OU_DOWN_BY_10_R1               ;
                                      20  AE  D6 00646        INCL    SCALE                                         ;
                                          EF  11 00649        BRB     95$                                           ;
          50        D4    AD      D8  AD  C9 0064B 96$:   BISL3   INTMED_DATA+8, INTMED_DATA+4, R0              ; 1545
                          50      DC  AD  C8 00651        BISL2   INTMED_DATA+12, R0                            ;
                                          1D  12 00655        BNEQ    99$                                           ;
                06        02              69  8F 00657        CASEB   (R9), #2, #6                                  ; 1549
    0A74      0A74      0027        0011     0065B 97$:   .WORD   98$-97$,-                                     ;
              0063      004E        0039     00663                101$-97$,-                                    ;
                                                                  303$-97$,-                                    ;
                                                                  303$-97$,-                                    ;
                                                                  104$-97$,-                                    ;
                                                                  106$-97$,-                                    ;
                                                                  108$-97$                                      ;
                                        0A63  31 00669        BRW     303$                                          ; 1611
                          12      FF  AD  E8 0066C 98$:   BLBS    SRC_INFO+7, 101$                              ; 1555
                          03      D1  AD  E9 00670        BLBC    INTMED_DATA+1, 100$                           ; 1557
                                        08D6  31 00674 99$:   BRW     275$                                          ;
                                      D2  AD  B5 00677 100$:  TSTW    INTMED_DATA+2                                 ;
                                          F8  12 0067A        BNEQ    99$                                           ;
                          68      D0  AD  90 0067C        MOVB    INTMED_DATA, (OUTPUT)                         ; 1559
                                          5C  11 00680        BRB     111$                                          ; 1549
                          03      FF  AD  E9 00682 101$:  BLBC    SRC_INFO+7, 102$                              ; 1565
                                        08AD  31 00686        BRW     273$                                          ;
                                      D2  AD  B5 00689 102$:  TSTW    INTMED_DATA+2                                 ; 1567
                                          E6  12 0068C        BNEQ    99$                                           ;
                          68      D0  AD  B0 0068E        MOVW    INTMED_DATA, (OUTPUT)                         ; 1569
                                          4A  11 00692 103$:  BRB     111$                                          ; 1549
                                      D0  AD  D5 00694 104$:  TSTL    INTMED_DATA                                   ; 1575
                                          DB  19 00697        BLSS    99$                                           ;
                          05      FF  AD  E9 00699        BLBC    SRC_INFO+7, 105$                              ; 1577
                D0        AD      D0  AD  CE 0069D        MNEGL   INTMED_DATA, INTMED_DATA                      ;
                          50      D0  AD  9E 006A2 105$:  MOVAB   INTMED_DATA, R0                               ; 1579
                                        082E  31 006A6        BRW     264$                                          ;
                                      D0  AD  D5 006A9 106$:  TSTL    INTMED_DATA                                   ; 1585
                                          C6  19 006AC        BLSS    99$                                           ;
                          05      FF  AD  E9 006AE        BLBC    SRC_INFO+7, 107$                              ; 1587
                D0        AD      D0  AD  CE 006B2        MNEGL   INTMED_DATA, INTMED_DATA                      ;
                          50      D0  AD  9E 006B7 107$:  MOVAB   INTMED_DATA, R0                               ; 1589
                                        0828  31 006BB        BRW     266$                                          ;
          80000000        8F      D0  AD  D1 006BE 108$:  CMPL    INTMED_DATA, #-2147483648                     ; 1595
                                          04  12 006C6        BNEQ    109$                                          ;
                          0E      FF  AD  E8 006C8        BLBS    SRC_INFO+7, 110$                              ;
                                      D0  AD  D5 006CC 109$:  TSTL    INTMED_DATA                                   ; 1601
                                          A3  19 006CF        BLSS    99$                                           ;
                          05      FF  AD  E9 006D1        BLBC    SRC_INFO+7, 110$                              ; 1603
                D0        AD      D0  AD  CE 006D5        MNEGL   INTMED_DATA, INTMED_DATA                      ;
                          68      D0  AD  D0 006DA 110$:  MOVL    INTMED_DATA, (OUTPUT)                         ; 1605
                                        09F6  31 006DE 111$:  BRW     304$                                          ; 1549
                24        AE              32  B0 006E1 112$:  MOVW    #50, CLASS_S_DESC                             ; 1619
                28        AE      2C  AE  9E 006E5        MOVAB   TEMP_BUF2, CLASS_S_DESC+4                     ; 1620
                          0B              56  D1 006EA        CMPL    R6, #11                                       ; 1625
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                                21  12 006ED          BNEQ    114$                              ;
             51          60     AE  9E 006EF          MOVAB   TEMP_BUF1, R1                     ; 1627
             50          D0     AD  9E 006F3          MOVAB   INTMED_DATA, R0                   ;
                  00000000G     00  16 006F7          JSB     LIB$$CVT_CVTROUH_R1               ;
             05          FF     AD  E9 006FD          BLBC    SRC_INFO+7, 113$                  ; 1629
      61     AE          80     8F  88 00701          BISB2   #128, TEMP_BUF1+1                 ;
                                01  DD 00706 113$:    PUSHL   #1                                ; 1631
                                7E  7C 00708          CLRQ    -(SP)                             ;
                         2C     AE  DD 0070A          PUSHL   SCALE                             ;
                              008C  31 0070D          BRW     121$                              ;
             11                 56  D1 00710 114$:    CMPL    R6, #17                           ; 1634
                                21  12 00713          BNEQ    116$                              ;
                         D1     AD  95 00715          TSTB    INTMED_DATA+1                     ; 1637
                                04  18 00718          BGEQ    115$                              ;
      FF     AD                 01  88 0071A          BISB2   #1, SRC_INFO+7                    ;
                                01  DD 0071E 115$:    PUSHL   #1                                ; 1639
                                7E  7C 00720          CLRQ    -(SP)                             ;
                         2C     AE  DD 00722          PUSHL   SCALE                             ;
                                7E  D4 00725          CLRL    -(SP)                             ;
                         38     AE  9F 00727          PUSHAB  CLASS_S_DESC                      ;
                         D0     AD  9F 0072A          PUSHAB  INTMED_DATA                       ;
   00000000G 00                 07  FB 0072D          CALLS   #7, FOR$CVT_D_TF                  ;
                                75  11 00734          BRB     123$                              ;
             17                 56  D1 00736 116$:    CMPL    R6, #23                           ; 1642
                                1A  12 00739          BNEQ    118$                              ;
                         D1     AD  95 0073B          TSTB    INTMED_DATA+1                     ; 1645
                                04  18 0073E          BGEQ    117$                              ;
      FF     AD                 01  88 00740          BISB2   #1, SRC_INFO+7                    ;
                                01  DD 00744 117$:    PUSHL   #1                                ; 1647
                                7E  7C 00746          CLRQ    -(SP)                             ;
                         2C     AE  DD 00748          PUSHL   SCALE                             ;
                                7E  D4 0074B          CLRL    -(SP)                             ;
                         38     AE  9F 0074D          PUSHAB  CLASS_S_DESC                      ;
                         D0     AD  9F 00750          PUSHAB  INTMED_DATA                       ;
                                4F  11 00753          BRB     122$                              ;
             23                 56  D1 00755 118$:    CMPL    R6, #35                           ; 1650
                                54  12 00758          BNEQ    124$                              ;
      24     AE          FD     AD  B0 0075A          MOVW    SRC_INFO+5, CLASS_S_DESC          ; 1652
      28     AE          F9     AD  D0 0075F          MOVL    SRC_INFO+1, CLASS_S_DESC+4        ; 1653
             7E          55     8F  9A 00764          MOVZBL  #85, -(SP)                        ; 1655
             7E          24     AE  CE 00768          MNEGL   SCALE, -(SP)                      ; 1654
                                7E  D4 0076C          CLRL    -(SP)                             ;
                         6C     AE  9F 0076E          PUSHAB  TEMP_BUF1                         ;
                         34     AE  9F 00771          PUSHAB  CLASS_S_DESC                      ;
   00000000G 00                 05  FB 00774          CALLS   #5, OTS$CVT_T_H                   ;
             6E                 50  D0 0077B          MOVL    R0, STATUS                        ;
             03                 6E  E8 0077E          BLBS    STATUS, 119$                      ; 1657
                              091B  31 00781          BRW     299$                              ;
                         61     AE  95 00784 119$:    TSTB    TEMP_BUF1+1                       ; 1659
                                04  18 00787          BGEQ    120$                              ;
      FF     AD                 01  88 00789          BISB2   #1, SRC_INFO+7                    ;
      24     AE                 32  B0 0078D 120$:    MOVW    #50, CLASS_S_DESC                 ; 1661
      28     AE          2C     AE  9E 00791          MOVAB   TEMP_BUF2, CLASS_S_DESC+4         ; 1662
                                01  DD 00796          PUSHL   #1                                ; 1663
                                7E  7C 00798          CLRQ    -(SP)                             ;
                                7E  D4 0079A          CLRL    -(SP)                             ;
                                7E  D4 0079C 121$:    CLRL    -(SP)                             ;
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                                 38   AE   9F 0079E         PUSHAB  CLASS_S_DESC                              ;
                                 78   AE   9F 007A1         PUSHAB  TEMP_BUF1                                 ;
                 00000000G  00        07   FB 007A4 122$:   CALLS   #7, FOR$CVT_H_TF                          ;
                            6E        50   D0 007AB 123$:   MOVL    R0, STATUS                                ;
                            03        6E   E8 007AE 124$:   BLBS    STATUS, 126$                              ; 1667
                                    013A   31 007B1 125$:   BRW     148$                                      ;
          2C    AE          32        20   3B 007B4 126$:   SKPC    #32, #50, TEMP_BUF2                       ; 1669
                                      02   12 007B9         BNEQ    127$                                      ;
                                      51   D4 007BB         CLRL    R1                                        ;
                            50   2C   AE   9E 007BD 127$:   MOVAB   TEMP_BUF2, R0                             ;
                56          51        50   C3 007C1         SUBL3   R0, R1, BUF_OFFSET                        ;
          1C    AE          30        56   C3 007C5         SUBL3   BUF_OFFSET, #48, NO_DIGITS                ; 1670
                            5A   1C   AE   D0 007CA         MOVL    NO_DIGITS, R10                            ; 1672
                                      50   D4 007CE         CLRL    R0                                        ;
                            1F        5A   D1 007D0         CMPL    R10, #31                                  ;
                                      0A   15 007D3         BLEQ    128$                                      ;
                                      50   D6 007D5         INCL    R0                                        ;
                            50 00000000G   8F   D0 007D7    MOVL    #LIB$_ROPRAND, R0                         ;
                                      04      007DE         RET                                               ;
                06          0F        69   8F 007DF 128$:   CASEB   (R9), #15, #6                             ; 1674
     009E     005F        003C      0011      007E3 129$:   .WORD   130$-129$,-                               ;
              0108        00DA      00DA      007EB                 132$-129$,-                               ;
                                                                    135$-129$,-                               ;
                                                                    138$-129$,-                               ;
                                                                    143$-129$,-                               ;
                                                                    143$-129$,-                               ;
                                                                    147$-129$                                 ;
                                    08DB   31 007F1         BRW     303$                                      ; 1764
                            03   FF   AD   E9 007F4 130$:   BLBC    SRC_INFO+7, 131$                          ; 1680
                                    073B   31 007F8         BRW     273$                                      ;
                            57        6B   3C 007FB 131$:   MOVZWL  (R11), R7                                 ; 1682
                            57        5A   D1 007FE         CMPL    R10, R7                                   ;
                            AE        14      00801         BGTR    125$                                      ;
                50          57        5A   C3 00803         SUBL3   R10, R7, R0                               ; 1684
     50         30          6E        00   2C 00807         MOVC5   #0, (SP), #48, R0, TEMP_BUF1              ;
                                 60   AE      0080C                                                           ;
                            50   60 AE47   9E 0080E         MOVAB   TEMP_BUF1[R7], R0                         ; 1686
                            50        5A   C2 00813         SUBL2   R10, R0                                   ;
                60     2D AE46        5A   28 00816         MOVC3   R10, TEMP_BUF2+1[BUF_OFFSET], (R0)        ;
                                    0097   31 0081C         BRW     141$                                      ; 1687
                                      6B   B5 0081F 132$:   TSTW    (R11)                                     ; 1699
                                      04   12 00821         BNEQ    133$                                      ;
                                      54   D4 00823         CLRL    DES_LEN                                   ;
                                      05   11 00825         BRB     134$                                      ;
                            54        6B   3C 00827 133$:   MOVZWL  (R11), DES_LEN                            ;
                                      54   D7 0082A         DECL    DES_LEN                                   ;
                            5A        54   D1 0082C 134$:   CMPL    DES_LEN, R10                              ; 1703
                                      80   19 0082F         BLSS    125$                                      ;
  60    AE          54     2C AE46   1C   AE   09 00831     CVTSP   NO_DIGITS, TEMP_BUF2[BUF_OFFSET], DES_LEN, -; 1705
                                                                    TEMP_BUF1                                 ;
        68          54     60   AE        54   08 0083A     CVTPS   DES_LEN, TEMP_BUF1, DES_LEN, (OUTPUT)     ; 1706
                                      79   11 00840         BRB     142$                                      ; 1674
                            50   01   A6   9E 00842 135$:   MOVAB   1(R6), R0                                 ; 1711
        50          30          6E        00   2C 00846     MOVC5   #0, (SP), #48, R0, TEMP_BUF2              ;
                                 2C   AE      0084B                                                           ;
        5A          6B          10        00   ED 0084D     CMPZV   #0, #16, (R11), R10                       ; 1713
                                      6E   19 00852         BLSS    144$                                      ;
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                                56              6B  3C 00854          MOVZWL  (R11), BUF_OFFSET                                       ; 1715
                            56  31              56  C3 00857          SUBL3   BUF_OFFSET, #49, BUF_OFFSET                             ;
                                51          2C AE46  9E 0085B          MOVAB   TEMP_BUF2[BUF_OFFSET], R1                               ; 1716
                                50              61  9A 00860          MOVZBL  (R1), R0                                                ;
                                50 00000000G0040    9E 00863          MOVAB   LIB$AB_CVT_U_0-48[R0], R0                               ; 1717
                                06          FF  AD  E9 0086B          BLBC    SRC_INFO+7, T36$                                        ; 1716
                                50          0A  A0  D0 0086F          MOVL    10(R0), R0                                              ;
                                                03  11 00873          BRB     137$                                                    ;
                                50              60  D0 00875 136$:    MOVL    (R0), R0                                                ; 1717
                                61              50  90 00878 137$:    MOVB    R0, (R1)                                                ; 1716
                            68  61              6B  28 0087B          MOVC3   (R11), (R1), (OUTPUT)                                   ; 1719
                                                7D  11 0087F          BRB     150$                                                    ; 1674
                                                6B  B5 00881 138$:    TSTW    (R11)                                                   ; 1731
                                                04  12 00883          BNEQ    139$                                                    ;
                                                57  D4 00885          CLRL    DES_LEN                                                 ;
                                                05  11 00887          BRB     140$                                                    ;
                                57              6B  3C 00889 139$:    MOVZWL  (R11), DES_LEN                                          ;
                                57              57  D7 0088C          DECL    DES_LEN                                                 ;
                                57              5A  D1 0088E 140$:    CMPL    R10, DES_LEN                                            ; 1735
                                                5B  14 00891          BGTR    148$                                                    ;
                            50  57              5A  C3 00893          SUBL3   R10, DES_LEN, R0                                        ; 1737
                                                50  D6 00897          INCL    R0                                                      ;
                        50  30  6E              00  2C 00899          MOVC5   #0, (SP), #48, R0, TEMP_BUF1                            ;
                                            60  AE      0089E                                                                       ;
                                59          60 AE47  9E 008A0          MOVAB   TEMP_BUF1[DES_LEN], R9                                  ; 1738
                            50  59              5A  C3 008A5          SUBL3   R10, R9, R0                                             ;
                            60      2D AE46     5A  28 008A9          MOVC3   R10, TEMP_BUF2+1[BUF_OFFSET], (R0)                      ;
                                69          2C AE46  90 008AF          MOVB    TEMP_BUF2[BUF_OFFSET], (R9)                             ; 1739
                                                57  D6 008B4          INCL    R7                                                      ; 1741
                            68  60  AE              57  28 008B6 141$:    MOVC3   R7, TEMP_BUF1, (OUTPUT)                             ;
                                                41  11 008BB 142$:    BRB     150$                                                    ; 1674
                        5A  6B              10      00  ED 008BD 143$:    CMPZV   #0, #16, (R11), R10                                 ; 1747
                                                    2A  19 008C2 144$:    BLSS    148$                                                ;
                    60  AE  6B          2C AE46     1C  AE  09 008C4          CVTSP   NO_DIGITS, TEMP_BUF2[BUF_OFFSET], (R11), -      ; 1749
                                                                                      TEMP_BUF1
                                13                  69  91 008CD          CMPB    (R9), #19                                           ; 1751
                                                    09  12 008D0          BNEQ    145$                                                ;
                                50 00000000G        00  9E 008D2          MOVAB   LIB$AB_CVTPT_0, R0                                  ;
                                                    07  11 008D9          BRB     146$                                                ;
                                50 00000000G        00  9E 008DB 145$:    MOVAB   LIB$AB_CVTPT_Z, R0                                  ;
                        6B  60  60  AE                  6B  24 008E2 146$:    CVTPT   (R11), TEMP_BUF1, (R0), (R11), (OUTPUT)         ; 1752
                                                        68      008E8                                                               ;
                                                    13  11 008E9          BRB     150$                                                ; 1674
                                08                  50  E9 008EB 147$:    BLBC    R0, 149$                                            ; 1758
                                50 00000000G        8F  D0 008EE 148$:    MOVL    #LIB$_DECOVF, R0                                    ;
                                                        04 008F5          RET                                                         ;
                        68  6B  2C AE46         1C  AE  09 008F6 149$:    CVTSP   NO_DIGITS, TEMP_BUF2[BUF_OFFSET], (R11), -      ; 1760
                                                                                      (OUTPUT)
                                            07D6        31 008FE 150$:    BRW     304$                                                ; 1226
                                02                  69  91 00901 151$:    CMPB    (R9), #2                                            ; 1775
                                0D                  13  00904          BEQL    152$                                                ;
                                0E                  69  91 00906          CMPB    (R9), #14                                           ;
                                                    08  13 00909          BEQL    152$                                                ;
                                25                  69  91 0090B          CMPB    (R9), #37                                           ;
                                                    03  13 0090E          BEQL    152$                                                ;
                                            07BC    31  00910          BRW     303$                                                ;
                            24  AE              32      B0 00913 152$:    MOVW    #50, CLASS_S_DESC                                   ; 1777
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                          28   AE        2C   AE   9E 00917         MOVAB   TEMP_BUF2, CLASS_S_DESC+4                 ; 1778
                               55        20   AE   D0 0091C         MOVL    SCALE, R5                                  ; 1780
                                              04   19 00920         BLSS    153$                                       ;
                                              57   D4 00922         CLRL    DIGITS_IN_FRACT                            ;
                                              03   11 00924         BRB     154$                                       ;
                          57                  55   CE 00926 153$:   MNEGL   R5, DIGITS_IN_FRACT                        ;
                          06                  56   D1 00929 154$:   CMPL    R6, #6                                     ; 1785
                                              18   12 0092C         BNEQ    155$                                       ;
                          60   AE        D0   AD   6E 0092E         CVTLD   INTMED_DATA, TEMP_BUF1                     ; 1787
                                              55   DD 00933         PUSHL   R5                                         ; 1788
                                              57   DD 00935         PUSHL   DIGITS_IN_FRACT                            ;
                                         2C   AE   9F 00937         PUSHAB  CLASS_S_DESC                               ;
                                         6C   AE   9F 0093A         PUSHAB  TEMP_BUF1                                  ;
                   00000000G   00             04   FB 0093D         CALLS   #4, FOR$CVT_D_TF                           ;
                                              5D   11 00944         BRB     158$                                       ;
                          0C                  56   D1 00946 155$:   CMPL    R6, #12                                    ; 1791
                                              19   12 00949         BNEQ    156$                                       ;
                          51             60   AE   9E 0094B         MOVAB   TEMP_BUF1, R1                              ; 1793
                          50             D0   AD   9E 0094F         MOVAB   INTMED_DATA, R0                            ;
                            00000000G    00        16 00953         JSB     LIB$$CVT_CVTROUH_R1                        ;
                          35             FF   AD   E9 00959         BLBC    SRC_INFO+7, 157$                           ; 1795
                          61   AE        80   8F   88 0095D         BISB2   #128, TEMP_BUF1+1                          ;
                                              2E   11 00962         BRB     157$                                       ; 1797
                          1E                  56   D1 00964 156$:   CMPL    R6, #30                                    ; 1800
                                              3D   12 00967         BNEQ    159$                                       ;
                          1C   AE        FD   AD   3C 00969         MOVZWL  SRC_INFO+5, NO_DIGITS                      ; 1802
  2C   AE       1C   AE   D0   AD        1C   AE   08 0096E         CVTPS   NO_DIGITS, INTMED_DATA, NO_DIGITS, -       ; 1803
                                                                            TEMP_BUF2
            24   AE       1C   AE             01   A1 00977         ADDW3   #1, NO_DIGITS, CLASS_S_DESC                ; 1804
                                              15   DD 0097D         PUSHL   #21                                        ; 1806
                                              7E   7C 0097F         CLRQ    -(SP)                                      ; 1805
                                         6C   AE   9F 00981         PUSHAB  TEMP_BUF1                                  ;
                                         34   AE   9F 00984         PUSHAB  CLASS_S_DESC                               ;
                   00000000G   00             05   FB 00987         CALLS   #5, OTS$CVT_T_H                            ;
                          24   AE             32   B0 0098E         MOVW    #50, CLASS_S_DESC                          ; 1807
                                              55   DD 00992 157$:   PUSHL   R5                                         ; 1808
                                              57   DD 00994         PUSHL   DIGITS_IN_FRACT                            ;
                                         2C   AE   9F 00996         PUSHAB  CLASS_S_DESC                               ;
                                         6C   AE   9F 00999         PUSHAB  TEMP_BUF1                                  ;
                   00000000G   00             04   FB 0099C         CALLS   #4, FOR$CVT_H_TF                           ;
                               6E             50   D0 009A3 158$:   MOVL    R0, STATUS                                 ;
            2C   AE            32             20   3B 009A6 159$:   SKPC    #32, #50, TEMP_BUF2                        ; 1812
                                              02   12 009AB         BNEQ    160$                                       ;
                                              51   D4 009AD         CLRL    R1                                         ;
                          50             2C   AE   9E 009AF 160$:   MOVAB   TEMP_BUF2, R0                              ;
                 56            51             50   C3 009B3         SUBL3   R0, R1, BUF_OFFSET                         ;
                                              57   D5 009B7         TSTL    DIGITS_IN_FRACT                            ; 1816
                                              05   12 009B9         BNEQ    161$                                       ;
                          50                  01   D0 009BB         MOVL    #1, R0                                     ;
                                              02   11 009BE         BRB     162$                                       ;
                                              50   D4 009C0 161$:   CLRL    R0                                         ;
                          54         CE A046       9E 009C2 162$:   MOVAB   -50(R0)[BUF_OFFSET], FINAL_LEN             ; 1813
                          54                  54   CE 009C7         MNEGL   FINAL_LEN, FINAL_LEN                       ;
                          03                  6E   E9 009CA         BLBC    STATUS, 163$                               ; 1820
                                         032B      31 009CD         BRW     233$                                       ;
                          09             F5   AD   B1 009D0 163$:   CMPW    DST_INFO+5, #9                             ; 1824
                                              05   1A 009D4         BGTRU   164$                                       ;
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                                57              21  D0 009D6          MOVL    #33, DIGITS_IN_FRACT                    ; 1826
                                                12  11 009D9          BRB     166$
                                50        F5    AD  3C 009DB 164$:   MOVZWL  DST_INFO+5, R0                          ; 1828
                                50              09  C2 009DF          SUBL2   #9, R0
                                21              50  D1 009E2          CMPL    R0, #33
                                                03  15 009E5          BLEQ    165$
                                50              21  D0 009E7          MOVL    #33, R0
                                57              50  D0 009EA 165$:   MOVL    R0, DIGITS_IN_FRACT
                                                04  DD 009ED 166$:   PUSHL   #4                                      ; 1830
                                                7E  D4 009EF          CLRL    -(SP)
                                                55  DD 009F1          PUSHL   R5
                                                57  DD 009F3          PUSHL   DIGITS_IN_FRACT
                                            34  AE  9F 009F5          PUSHAB  CLASS_S_DESC
                                            74  AE  9F 009F8          PUSHAB  TEMP_BUF1
                                          02D8  31  9F 009FB          BRW     229$
                                            20  AE  D5 009FE 167$:   TSTL    SCALE                                   ; 1854
                                                14  15 00A01          BLEQ    168$
                                51        D0    AD  9E 00A03          MOVAB   INTMED_DATA, R1
                                50      F575    CF  9E 00A07          MOVAB   P.AAS, R0
                                    00000000G   00  16 00A0C          JSB     LIB$$CVT_MULD2_R1
                                            20  AE  D7 00A12          DECL    SCALE
                                                E7  11 00A15          BRB     167$
                                                14  18 00A17 168$:   BGEQ    169$
                                51        D0    AD  9E 00A19          MOVAB   INTMED_DATA, R1
                                50      F567    CF  9E 00A1D          MOVAB   P.AAT, R0
                                    00000000G   00  16 00A22          JSB     LIB$$CVT_DIVD2_R1
                                            20  AE  D6 00A28          INCL    SCALE
                                                EA  11 00A2B          BRB     168$
                            60  AE              D0  AD 6B 00A2D 169$:   CVTRDL  INTMED_DATA, TEMP_BUF1                  ; 1856
                          06                    02  69 8F 00A32          CASEB   (R9), #2, #6                            ; 1858
0699                    0699                0022      0010  00A36 170$:   .WORD   171$-170$,-
                        037C                0375      036E  00A3E                173$-170$,-
                                                                               303$-170$,-
                                                                               303$-170$,-
                                                                               243$-170$,-
                                                                               244$-170$,-
                                                                               245$-170$
                                                    63  11 00A44          BRB     179$                                    ; 1895
                                            D1  AD  95 00A46 171$:   TSTB    INTMED_DATA+1                           ; 1864
                                                64  19 00A49 172$:   BLSS    181$
                        000000FF    8F          60  AE  D1 00A4B          CMPL    TEMP_BUF1, #255                         ; 1866
                                                6F  1A 00A53          BGTRU   183$
                                              033A  31 00A55          BRW     240$
                                            D1  AD  95 00A58 173$:   TSTB    INTMED_DATA+1                           ; 1874
                                                52  19 00A5B 174$:   BLSS    181$
                        0000FFFF    8F          60  AE  D1 00A5D          CMPL    TEMP_BUF1, #65535                       ; 1876
                                                5D  1A 00A65          BGTRU   183$
                                              0334  31 00A67          BRW     242$
                                            20  AE  D5 00A6A 175$:   TSTL    SCALE                                   ; 1902
                                                14  15 00A6D          BLEQ    176$
                                51        D0    AD  9E 00A6F          MOVAB   INTMED_DATA, R1
                                50      F519    CF  9E 00A73          MOVAB   P.AAU, R0
                                    00000000G   00  16 00A78          JSB     LIB$$CVT_MULD2_R1
                                            20  AE  D7 00A7E          DECL    SCALE
                                                E7  11 00A81          BRB     175$
                                                14  18 00A83 176$:   BGEQ    177$
                                51        D0    AD  9E 00A85          MOVAB   INTMED_DATA, R1
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                                    50      F50B   CF  9E 00A89          MOVAB   P.AAV, R0                                    ;
                                00000000G   00  16 00A8E              JSB     LIB$$CVT_DIVD2_R1                           ;
                                      20    AE  D6 00A94              INCL    SCALE                                       ;
                                            EA  11 00A97              BRB     176$                                        ;
                                05          04     69  8F 00A99 177$: CASEB   (R9), #4, #5                               ; 1905
                          0632          0632  0632    000F   00A9D 178$: .WORD   180$-178$,-                              ;
                                        0035  0632     00AA5              303$-178$,-                                 ;
                                                                         303$-178$,-                                 ;
                                                                         303$-178$,-                                 ;
                                                                         303$-178$,-                                 ;
                                                                         185$-178$                                   ;
                                              0623  31  00AA9 179$:     BRW     303$                                        ; 1924
                                        D1      AD  95  00AAC 180$:     TSTB    INTMED_DATA+1                               ; 1911
                                            03      18  00AAF 181$:     BGEQ    182$                                        ;
                                            0482    31  00AB1          BRW     273$                                        ;
                                    0E  BE  D0      AD  71  00AB4 182$: CMPD    INTMED_DATA, @LRGST_D_LU                    ; 1913
                                            50      DC  00AB9          MOVPSL  R0                                          ;
                          50            50      02      02  EF  00ABB      EXTZV   #2, #2, R0, R0                              ;
                                            50      D7  00AC0          DECL    R0                                          ;
                                            03      18  00AC2          BGEQ    184$                                        ;
                                            0486    31  00AC4 183$:     BRW     275$                                        ;
                                        00E0    8F  B9  00AC7 184$:     BICPSW  #224                                        ; 1915
                                    68      D0      AD  6B  00ACB      CVTRDL  INTMED_DATA, (OUTPUT)                       ; 1916
                                            048B    31  00ACF          BRW     277$                                        ; 1917
                                    50      D0      AD  9E  00AD2 185$: MOVAB   INTMED_DATA, R0                             ; 1921
                                    51              58  D0  00AD6      MOVL    OUTPUT, R1                                  ;
                                00000000G   00      16  00AD9          JSB     LIB$$CVT_CVTRDQ_R1                          ;
                                            05F5    31  00ADF          BRW     304$                                        ; 1226
                                    02              69  91  00AE2 186$: CMPB    (R9), #2                                    ; 1935
                                            0A      13  00AE5          BEQL    187$                                        ;
                                    0E              69  91  00AE7      CMPB    (R9), #14                                   ;
                                            05      13  00AEA          BEQL    187$                                        ;
                                    25              69  91  00AEC      CMPB    (R9), #37                                   ;
                                            B8      12  00AEF          BNEQ    179$                                        ;
                                24  AE              32  B0  00AF1 187$: MOVW    #50, CLASS_S_DESC                           ; 1937
                                28  AE          2C  AE  9E  00AF5      MOVAB   TEMP_BUF2, CLASS_S_DESC+4                   ; 1938
                          01            0A      02  AA  8F  00AFA      CASEB   2(R10), #10, #1                             ; 1942
                                      0009          0004   00AFF 188$: .WORD   189$-188$,-                              ;
                                                                         190$-188$                                   ;
                                    57              07  D0  00B03 189$: MOVL    #7, DIGITS_IN_FRACT                         ;
                                            03      11  00B06          BRB     191$                                        ;
                                    57              10  D0  00B08 190$: MOVL    #16, DIGITS_IN_FRACT                        ;
                                    07          F5  AD  B1  00B0B 191$: CMPW    DST_INFO+5, #7                              ; 1954
                                            15      1B  00B0F          BLEQU   193$                                        ;
                                    51          F5  AD  3C  00B11      MOVZWL  DST_INFO+5, R1                              ; 1957
                                    51              07  C2  00B15      SUBL2   #7, R1                                      ;
                                    50              57  D0  00B18      MOVL    DIGITS_IN_FRACT, R0                         ;
                                    51              50  D1  00B1B      CMPL    R0, R1                                      ;
                                            03      15  00B1E          BLEQ    192$                                        ;
                                    50              51  D0  00B20      MOVL    R1, R0                                      ;
                                    57              50  D0  00B23 192$: MOVL    R0, DIGITS_IN_FRACT                         ; 1956
                                                    7E  D4  00B26 193$: CLRL    -(SP)                                       ; 1959
                                            24  AE  DD  00B28          PUSHL   SCALE                                       ;
                                                57  DD  00B2B          PUSHL   DIGITS_IN_FRACT                             ;
                                            30  AE  9F  00B2D          PUSHAB  CLASS_S_DESC                                ;
                                                D0  AD  9F  00B30      PUSHAB  INTMED_DATA                                 ;
                                00000000G   00          05  FB  00B33      CALLS   #5, FOR$CVT_D_TE                            ;
```

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                         6E        50  D0 00B3A         MOVL    R0, STATUS                              ;
                         5C        6E  E9 00B3D         BLBC    STATUS, 199$                            ; 1961
        2C   AE          32        20  3B 00B40         SKPC    #32, #50, TEMP_BUF2                     ; 1963
                                   03  13 00B45         BEQL    194$                                    ;
                                 01A5  31 00B47         BRW     232$                                    ;
                                 01A0  31 00B4A 194$:   BRW     231$                                    ;
                              20   AE  D5 00B4D 195$:   TSTL    SCALE                                   ; 1981
                                   14  15 00B50         BLEQ    196$                                    ;
                         51   D0   AD  9E 00B52         MOVAB   INTMED_DATA, R1                         ;
                         50 F446   CF  9E 00B56         MOVAB   P.AAW, R0                               ;
                           00000000G   00  16 00B5B     JSB     LIB$$CVT_MULH2_R1                       ;
                              20   AE  D7 00B61         DECL    SCALE                                   ;
                                   E7  11 00B64         BRB     195$                                    ;
                                   14  18 00B66 196$:   BGEQ    197$                                    ;
                         51   D0   AD  9E 00B68         MOVAB   INTMED_DATA, R1                         ;
                         50 F440   CF  9E 00B6C         MOVAB   P.AAX, R0                               ;
                           00000000G   00  16 00B71     JSB     LIB$$CVT_DIVH2_R1                       ;
                              20   AE  D6 00B77         INCL    SCALE                                   ;
                                   EA  11 00B7A         BRB     196$                                    ;
                         51   60   AE  9E 00B7C 197$:   MOVAB   TEMP_BUF1, R1                           ; 1983
                         50   D0   AD  9E 00B80         MOVAB   INTMED_DATA, R0                         ;
                           00000000G   00  16 00B84     JSB     LIB$$CVT_CVTRHL_R1                      ;
             06          02        69  8F 00B8A         CASEB   (R9), #2, #6                            ; 1985
    0541   0541        FECA      FEB8     00B8E 198$:   .WORD   171$-198$,-                             ;
           0224        021D      0216     00B96                 173$-198$,-                             ;
                                                                303$-198$,-                             ;
                                                                303$-198$,-                             ;
                                                                243$-198$,-                             ;
                                                                244$-198$,-                             ;
                                                                245$-198$                               ;
                                   3F  11 00B9C 199$:   BRB     204$                                    ; 2022
                              20   AE  D5 00B9E 200$:   TSTL    SCALE                                   ; 2029
                                   14  15 00BA1         BLEQ    201$                                    ;
                         51   D0   AD  9E 00BA3         MOVAB   INTMED_DATA, R1                         ;
                         50 F415   CF  9E 00BA7         MOVAB   P.AAY, R0                               ;
                           00000000G   00  16 00BAC     JSB     LIB$$CVT_MULH2_R1                       ;
                              20   AE  D7 00BB2         DECL    SCALE                                   ;
                                   E7  11 00BB5         BRB     200$                                    ;
                                   14  18 00BB7 201$:   BGEQ    202$                                    ;
                         51   D0   AD  9E 00BB9         MOVAB   INTMED_DATA, R1                         ;
                         50 F40F   CF  9E 00BBD         MOVAB   P.AAZ, R0                               ;
                           00000000G   00  16 00BC2     JSB     LIB$$CVT_DIVH2_R1                       ;
                              20   AE  D6 00BC8         INCL    SCALE                                   ;
                                   EA  11 00BCB         BRB     201$                                    ;
             05          04        69  8F 00BCD 202$:   CASEB   (R9), #4, #5                            ; 2032
    04FE   04FE        04FE      000E     00BD1 203$:   .WORD   205$-203$,-                             ;
                       003F      04FE     00BD9                 303$-203$,-                             ;
                                                                303$-203$,-                             ;
                                                                303$-203$,-                             ;
                                                                303$-203$,-                             ;
                                                                208$-203$                               ;
                                   6F  11 00BDD 204$:   BRB     213$                                    ; 2051
                              D1   AD  95 00BDF 205$:   TSTB    INTMED_DATA+1                           ; 2038
                                   03  18 00BE2         BGEQ    206$                                    ;
                                 034F  31 00BE4         BRW     273$                                    ;
                         50   D0   AD  9E 00BE7 206$:   MOVAB   INTMED_DATA, R0                         ; 2040
                         51   04   AE  D0 00BEB         MOVL    LRGST_H_LU, R1                          ;
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                          00000000G  00  16 00BEF          JSB     LIB$$CVT_CMPH_R1                          :
                                     50  D5 00BF5          TSTL    R0                                        :
                                     03  15 00BF7          BLEQ    207$                                      :
                                0351 31  00BF9             BRW     275$                                      :
                            00E0  8F  B9 00BFC 207$:       BICPSW  #224                                      : 2042
                   50         D0  AD  9E 00C00             MOVAB   INTMED_DATA, R0                           : 2043
                   51             58  D0 00C04             MOVL    OUTPUT, R1                                :
                          00000000G  00  16 00C07          JSB     LIB$$CVT_CVTRHL_R1                        :
                                034D 31  00C0D             BRW     277$                                      : 2044
                   50         D0  AD  9E 00C10 208$:       MOVAB   INTMED_DATA, R0                           : 2048
                                0377 31  00C14             BRW     282$                                      :
                              20  AE  D5 00C17 209$:       TSTL    SCALE                                     : 2058
                                  14  15 00C1A             BLEQ    210$                                      :
                   51         D0  AD  9E 00C1C             MOVAB   INTMED_DATA, R1                           :
                   50       F3BC  CF  9E 00C20             MOVAB   P.ABA, R0                                 :
                          00000000G  00  16 00C25          JSB     LIB$$CVT_MULH2_R1                         :
                              20  AE  D7 00C2B             DECL    SCALE                                     :
                                  E7  11 00C2E             BRB     209$                                      :
                                  14  18 00C30 210$:       BGEQ    211$                                      :
                   51         D0  AD  9E 00C32             MOVAB   INTMED_DATA, R1                           :
                   50       F3B6  CF  9E 00C36             MOVAB   P.ABB, R0                                 :
                          00000000G  00  16 00C3B          JSB     LIB$$CVT_DIVH2_R1                         :
                              20  AE  D6 00C41             INCL    SCALE                                     :
                                  EA  11 00C44             BRB     210$                                      :
             01    0A             69  8F 00C46 211$:       CASEB   (R9), #10, #1                             : 2061
                 0016           0007     00C4A 212$:       .WORD   214$-212$,-                               :
                                                                   215$-212$                                 :
                                047E 31  00C4E 213$:       BRW     303$                                      : 2071
                   50         D0  AD  9E 00C51 214$:       MOVAB   INTMED_DATA, R0                           : 2065
                   51             58  D0 00C55             MOVL    OUTPUT, R1                                :
                          00000000G  00  16 00C58          JSB     LIB$$CVT_CVTHF_R1                         :
                                  0D  11 00C5E             BRB     216$                                      :
                   50         D0  AD  9E 00C60 215$:       MOVAB   INTMED_DATA, R0                           : 2068
                   51             58  D0 00C64             MOVL    OUTPUT, R1                                :
                          00000000G  00  16 00C67          JSB     LIB$$CVT_CVTHD_R1                         :
                                0467 31  00C6D 216$:       BRW     304$                                      : 1226
                   02             69  91 00C70 217$:       CMPB    (R9), #2                                  : 2082
                                  0A  13 00C73             BEQL    218$                                      :
                   0E             69  91 00C75             CMPB    (R9), #14                                 :
                                  05  13 00C78             BEQL    218$                                      :
                   25             69  91 00C7A             CMPB    (R9), #37                                 :
                                  CF  12 00C7D             BNEQ    213$                                      :
          24       AE             32  B0 00C7F 218$:       MOVW    #50, CLASS_S_DESC                         : 2088
          28       AE         2C  AE  9E 00C83             MOVAB   TEMP_BUF2, CLASS_S_DESC+4                 : 2089
             01    1B         02  AA  8F 00C88             CASEB   2(R10), #27, #1                           : 2093
                 0009           0004     00C8D 219$:       .WORD   220$-219$,-                               :
                                                                   221$-219$                                 :
                   57             0F  D0 00C91 220$:       MOVL    #15, DIGITS_IN_FRACT                      :
                                  03  11 00C94             BRB     222$                                      :
                   57             21  D0 00C96 221$:       MOVL    #33, DIGITS_IN_FRACT                      :
             01    1B         02  AA  8F 00C99 222$:       CASEB   2(R10), #27, #1                           : 2107
                 0009           0004     00C9E 223$:       .WORD   224$-223$,-                               :
                                                                   225$-223$                                 :
                   50             07  D0 00CA2 224$:       MOVL    #7, NOT_DIGITS_IN_FRACT                   :
                                  03  11 00CA5             BRB     226$                                      :
                   50             08  D0 00CA7 225$:       MOVL    #8, NOT_DIGITS_IN_FRACT                   :
 50       F5  AD   10             00  ED 00CAA 226$:       CMPZV   #0, #16, DST_INFO+5, NOT_DIGITS_IN_FRACT  : 2119
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                                         15  15 00CB0          BLEQ     228$                                              ;
                       51           F5   AD  3C 00CB2          MOVZWL   DST_INFO+5, R1                                    ; 2122
                       51                50  C2 00CB6          SUBL2    NOT_DIGITS_IN_FRACT, R1                           ;
                       50                57  D0 00CB9          MOVL     DIGITS_IN_FRACT, R0                               ;
                       51                50  D1 00CBC          CMPL     R0, R1                                            ;
                                         03  15 00CBF          BLEQ     227$                                              ;
                       50                51  D0 00CC1          MOVL     R1, R0                                            ;
                       57                50  D0 00CC4 227$:    MOVL     R0, DIGITS_IN_FRACT                               ; 2121
                                         04  DD 00CC7 228$:    PUSHL    #4                                                ; 2124
                                         7E  D4 00CC9          CLRL     -(SP)                                             ;
                                    28   AE  DD 00CCB          PUSHL    SCALE                                             ;
                                         57  DD 00CCE          PUSHL    DIGITS_IN_FRACT                                   ;
                                    34   AE  9F 00CD0          PUSHAB   CLASS_S_DESC                                      ;
                                    D0   AD  9F 00CD3          PUSHAB   INTMED_DATA                                       ;
                00000000G  00            06  FB 00CD6 229$:    CALLS    #6, FOR$CVT_H_TE                                  ;
                           6E            50  D0 00CDD          MOVL     R0, STATUS                                        ;
                           03            6E  E8 00CE0          BLBS     STATUS, 230$                                      ; 2126
                                       03E9  31 00CE3          BRW      303$                                              ;
       2C      AE          32            20  3B 00CE6 230$:    SKPC     #32, #50, TEMP_BUF2                               ; 2128
                                         02  12 00CEB          BNEQ     232$                                              ;
                                         51  D4 00CED 231$:    CLRL     R1                                                ;
                           50       2C   AE  9E 00CEF 232$:    MOVAB    TEMP_BUF2, R0                                     ;
               56          51            50  C3 00CF3          SUBL3    R0, R1, BUF_OFFSET                                ;
               54          32            56  C3 00CF7          SUBL3    BUF_OFFSET, #50, FINAL_LEN                        ; 2129
                     10    AE            54  D0 00CFB 233$:    MOVL     FINAL_LEN, OUTPUT_STR_LEN                         ; 2130
                           51     2C AE46    9E 00CFF          MOVAB    TEMP_BUF2[BUF_OFFSET], R1                         ; 2131
                           52            5B  D0 00D04          MOVL     R11, R2                                           ;
                           50            54  D0 00D07          MOVL     FINAL_LEN, R0                                     ;
                       00000000G   00    16 00D0A          JSB      LIB$SCOPY_R_DX6                                       ;
                           6E            50  D0 00D10          MOVL     R0, STATUS                                        ;
                00000000G  8F            6E  D1 00D13          CMPL     STATUS, #LIB$_STRTRU                              ; 2133
                                         03  13 00D1A          BEQL     234$                                              ;
                                       03A9  31 00D1C          BRW      302$                                              ;
                     50 00000000G   8F       D0 00D1F 234$:    MOVL     #LIB$_DESSTROVF, R0                               ;
                                         04     00D26          RET                                                        ;
                     1C    AE       FD   AD  3C 00D27 235$:    MOVZWL   SRC_INFO+5, NO_DIGITS                             ; 2146
  67           01    D0    AD       1C   AE  37 00D2C          CMPP4    NO_DIGITS, INTMED_DATA, #1, (PACK_ZERO)           ;
                                         54  DC 00D33          MOVPSL   R4                                                ;
  54           54          02            02  EF 00D35          EXTZV    #2, #2, R4, R4                                    ;
                                         54  D7 00D3A          DECL     R4                                                ;
                                         04  15 00D3C          BLEQ     236$                                              ;
                     FF    AD            01  88 00D3E          BISB2    #1, SRC_INFO+7                                    ;
                                    20   AE  D5 00D42 236$:    TSTL     SCALE                                             ;
                                         29  13 00D45          BEQL     237$                                              ;
       60      AE    D0    AD       1C   AE  34 00D47          MOVP     NO_DIGITS, INTMED_DATA, TEMP_BUF1                 ;
                           55       D0   AD  9E 00D4E          MOVAB    INTMED_DATA, R5                                   ;
                           54       1C   AE  9E 00D52          MOVAB    NO_DIGITS, R4                                     ;
                     14    AE            05  D0 00D56          MOVL     #5, 20(SP)                                        ;
                           53       14   AE  9E 00D5A          MOVAB    20(SP), R3                                        ;
                           52       60   AE  9E 00D5E          MOVAB    TEMP_BUF1, R2                                     ;
                           51       1C   AE  9E 00D62          MOVAB    NO_DIGITS, R1                                     ;
                           50       20   AE  9E 00D66          MOVAB    SCALE, R0                                         ;
                       00000000G   00    16 00D6A          JSB      LIB$$CVT_ASHP_R1                                      ;
       60      AE    D0    AD       1C   AE  36 00D70 237$:    CVTPL    NO_DIGITS, INTMED_DATA, TEMP_BUF1                 ; 2148
                           06            02  69  8F 00D77      CASEB    (R9), #2, #6                                      ; 2150
  0354       0354        001D          0011     00D7B 238$:    .WORD    239$-238$,-                                       ;
             0037        0030          0029     00D83                   241$-238$,-                                       ;
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                                                                    303$-238$,-                                   ;
                                                                    303$-238$,-                                   ;
                                                                    243$-238$,-                                   ;
                                                                    244$-238$,-                                   ;
                                                                    245$-238$                                     ;
                                  0343   31 00D89          BRW      303$                                          ; 2187
                             60     AE   D5 00D8C 239$:    TSTL     TEMP_BUF1                                     ; 2156
                                  FCB7   31 00D8F          BRW      172$                                          ;
                  68         60     AE   90 00D92 240$:    MOVB     TEMP_BUF1, (OUTPUT)                           ; 2160
                                    1E   11 00D96          BRB      246$                                          ;
                             60     AE   D5 00D98 241$:    TSTL     TEMP_BUF1                                     ; 2166
                                  FCBD   31 00D9B          BRW      174$                                          ;
                  68         60     AE   B0 00D9E 242$:    MOVW     TEMP_BUF1, (OUTPUT)                           ; 2170
                                    12   11 00DA2          BRB      246$                                          ;
                  50         60     AE   9E 00DA4 243$:    MOVAB    TEMP_BUF1, R0                                 ; 2175
                                  012C   31 00DA8          BRW      264$                                          ;
                  50         60     AE   9E 00DAB 244$:    MOVAB    TEMP_BUF1, R0                                 ; 2180
                                  0134   31 00DAF          BRW      266$                                          ;
                  68         60     AE   D0 00DB2 245$:    MOVL     TEMP_BUF1, (OUTPUT)                           ; 2184
                                  031E   31 00DB6 246$:    BRW      304$                                          ; 1226
                       1C    AE     FD   AD 3C 00DB9 247$: MOVZWL   SRC_INFO+5, NO_DIGITS                         ; 2194
   67          01      D0    AD     1C   AE 37 00DBE       CMPP4    NO_DIGITS, INTMED_DATA, #1, (PACK_ZERO)       ;
                                         54 DC 00DC5       MOVPSL   R4                                            ;
   54          54      02                02 EF 00DC7       EXTZV    #2, #2, R4, R4                                ;
                                         54 D7 00DCC       DECL     R4                                            ;
                                         04 15 00DCE       BLEQ     248$                                          ;
                       FF    AD          01 88 00DD0       BISB2    #1, SRC_INFO+7                                ;
                             20     AE   D5 00DD4 248$:    TSTL     SCALE                                         ;
                                    29   13 00DD7          BEQL     249$                                          ;
          60   AE      D0    AD     1C   AE 34 00DD9       MOVP     NO_DIGITS, INTMED_DATA, TEMP_BUF1             ;
                             55     D0   AD 9E 00DE0       MOVAB    INTMED_DATA, R5                               ;
                             54     1C   AE 9E 00DE4       MOVAB    NO_DIGITS, R4                                 ;
                       14    AE          05 D0 00DE8       MOVL     #5, 20(SP)                                    ;
                             53     14   AE 9E 00DEC       MOVAB    20(SP), R3                                    ;
                             52     60   AE 9E 00DF0       MOVAB    TEMP_BUF1, R2                                 ;
                             51     1C   AE 9E 00DF4       MOVAB    NO_DIGITS, R1                                 ;
                             50     20   AE 9E 00DF8       MOVAB    SCALE, R0                                     ;
                          00000000G 00   16 00DFC          JSB      LIB$$CVT_ASHP_R1                              ;
               05            04     69   8F 00E02 249$:    CASEB    (R9), #4, #5                                  ; 2197
   02C9        02C9        02C9   000F      00E06 250$:    .WORD    251$-250$,-                                   ;
                           0039   02C9      00E0E                   303$-250$,-                                   ;
                                                                    303$-250$,-                                   ;
                                                                    303$-250$,-                                   ;
                                                                    303$-250$,-                                   ;
                                                                    254$-250$                                     ;
                                  02BA   31 00E12          BRW      303$                                          ; 2224
                  03         FF     AD   E9 00E15 251$:    BLBC     SRC_INFO+7, 252$                              ; 2203
                                  011A   31 00E19          BRW      273$                                          ;
   0C   BE     0A      D0    AD     1C   AE 37 00E1C 252$: CMPP4    NO_DIGITS, INTMED_DATA, #10, @LRGST_P_LU      ; 2205
                                         54 DC 00E24       MOVPSL   R4                                            ;
   54          54      02                02 EF 00E26       EXTZV    #2, #2, R4, R4                                ;
                                         54 D7 00E2B       DECL     R4                                            ;
                                         03 14 00E2D       BGTR     253$                                          ;
                                  011B   31 00E2F          BRW      275$                                          ;
                           00E0     8F   B9 00E32 253$:    BICPSW   #224                                          ; 2209
               68      D0    AD     1C   AE 36 00E36       CVTPL    NO_DIGITS, INTMED_DATA, (OUTPUT)              ; 2210
                                  011E   31 00E3C          BRW      277$                                          ; 2211
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      2C   AE        1C   AE        D0   AD        1C   AE   08 00E3F 254$:   CVTPS   NO_DIGITS, INTMED_DATA, NO_DIGITS, -           ; 2216
                                                                               TEMP_BUF2
                     24   AE        1C   AE             01   A1 00E48         ADDW3   #1, NO_DIGITS, CLASS_S_DESC                    ; 2217
                               28   AE        2C   AE   9E 00E4E             MOVAB   TEMP_BUF2, CLASS_S_DESC+4                      ; 2218
                                              60   AE   9F 00E53             PUSHAB  TEMP_BUF1                                      ; 2219
                                              28   AE   9F 00E56             PUSHAB  CLASS_S_DESC
                          00000000G  00             02   FB 00E59             CALLS   #2, OTS$CVT_T_H
                                           0127      31 00E60             BRW     281$                                           ; 2220
                               24   AE        FD   AD   B0 00E63 255$:      MOVW    SRC_INFO+5, CLASS_S_DESC                       ; 2232
                               28   AE        F9   AD   D0 00E68             MOVL    SRC_INFO+1, CLASS_S_DESC+4                     ; 2233
                                         7E        55   8F   9A 00E6D             MOVZBL  #85, -(SP)                                     ; 2235
                                         7E        24   AE   CE 00E71             MNEGL   SCALE, -(SP)                                   ; 2234
                                                        7E   D4 00E75             CLRL    -(SP)
                                              6C   AE   9F 00E77             PUSHAB  TEMP_BUF1
                                              34   AE   9F 00E7A             PUSHAB  CLASS_S_DESC
                          00000000G  00             05   FB 00E7D             CALLS   #5, OTS$CVT_T_D
                                         6E        50   D0 00E84             MOVL    R0, STATUS
                                         03        6E   E8 00E87             BLBS    STATUS, 256$                                   ; 2237
                                           0212      31 00E8A             BRW     299$
                               2C   AE        60   AE   6B 00E8D 256$:      CVTRDL  TEMP_BUF1, TEMP_BUF2                           ; 2239
                     06             02        69   8F   CF 00E92             CASEB   (R9), #2, #6                                   ; 2241
      0239         0239         0025           0010        00E96 257$:      .WORD   258$-257$,-
                   005B         004C           003D        00E9E                    259$-257$,-
                                                                                    303$-257$,-
                                                                                    303$-257$,-
                                                                                    263$-257$,-
                                                                                    265$-257$,-
                                                                                    267$-257$
                                           61   11 00EA4             BRB     271$                                           ; 2280
                               2C   AE        D5   AE   D5 00EA6 258$:      TSTL    TEMP_BUF2                                      ; 2247
                                              13   19 00EA9             BLSS    260$
                     000000FF  8F        2C   AE   D1 00EAB             CMPL    TEMP_BUF2, #255                                ; 2249
                                              13   1A 00EB3             BGTRU   261$
                                         68   2C   AE   90 00EB5             MOVB    TEMP_BUF2, (OUTPUT)                            ; 2251
                                              3A   11 00EB9             BRB     268$                                           ; 2241
                               2C   AE        D5   AE   D5 00EBB 259$:      TSTL    TEMP_BUF2                                      ; 2257
                                              76   19 00EBE 260$:      BLSS    273$
                     0000FFFF  8F        2C   AE   D1 00EC0             CMPL    TEMP_BUF2, #65535                              ; 2259
                                              03   1B 00EC8 261$:      BLEQU   262$
                                           0080      31 00ECA             BRW     275$
                                         68   2C   AE   B0 00ECD 262$:      MOVW    TEMP_BUF2, (OUTPUT)                            ; 2261
                                              22   11 00ED1             BRB     268$                                           ; 2241
                                         50   2C   AE   9E 00ED3 263$:      MOVAB   TEMP_BUF2, R0                                  ; 2266
                                         51        58   D0 00ED7 264$:      MOVL    OUTPUT, R1
                                    00000000G  00   16 00EDA             JSB     LIB$$CVT_CVTLB_R1
                                              7F   11 00EE0             BRB     278$                                           ; 2241
                                         50   2C   AE   9E 00EE2 265$:      MOVAB   TEMP_BUF2, R0                                  ; 2271
                                         51        58   D0 00EE6 266$:      MOVL    OUTPUT, R1
                                    00000000G  00   16 00EE9             JSB     LIB$$CVT_CVTLW_R1
                                              70   11 00EEF             BRB     278$                                           ; 2241
                                         68   2C   AE   D0 00EF1 267$:      MOVL    TEMP_BUF2, (OUTPUT)                            ; 2276
                                              6A   11 00EF5 268$:      BRB     278$                                           ; 1226
                     05             04             69   8F   CF 00EF7 269$:      CASEB   (R9), #4, #5                                   ; 2288
      01D4         01D4         01D4           000F        00EFB 270$:      .WORD   272$-270$,-
                                0068           01D4        00F03                    303$-270$,-
                                                                                    303$-270$,-
                                                                                    303$-270$,-
```

```
                                                                303$-270$,-                                    ;
                                                                279$-270$                                      ;
                                01C5   31 00F07 271$:   BRW     303$                                           ; 2322
                 24    AE        FD    AD B0 00F0A 272$:   MOVW    SRC_INFO+5, CLASS_S_DESC                       ; 2293
                 28    AE        F9    AD D0 00F0F      MOVL    SRC_INFO+1, CLASS_S_DESC+4                     ; 2294
                       7E        55    8F 9A 00F14      MOVZBL  #85, -(SP)                                     ; 2296
                       7E        24    AE CE 00F18      MNEGL   SCALE, -(SP)                                   ; 2295
                                       7E D4 00F1C      CLRL    -(SP)                                          ;
                                 6C    AE 9F 00F1E      PUSHAB  TEMP_BUF1                                      ;
                                 34    AE 9F 00F21      PUSHAB  CLASS_S_DESC                                   ;
          00000000G    00              05 FB 00F24      CALLS   #5, OTS$CVT_T_D                                ;
                       6E              50 D0 00F2B      MOVL    R0, STATUS                                     ;
                       56              6E E9 00F2E      BLBC    STATUS, 280$                                   ; 2298
                                 61    AE 95 00F31      TSTB    TEMP_BUF1+1                                    ; 2300
                                 08       18 00F34      BGEQ    274$                                           ;
                  50 00000000G         8F D0 00F36 273$:   MOVL    #LIB$_INVCVT, R0                               ;
                                       04    00F3D      RET                                                    ;
                 08    BE        60    AE 71 00F3E 274$:   CMPD    TEMP_BUF1, @LRGST_D_LU                         ; 2302
                                       50 DC 00F43      MOVPSL  R0                                             ;
  50             50    02              02 EF 00F45      EXTZV   #2, #2, R0, R0                                 ;
                       08              50 F4 00F4A      SOBGEQ  R0, 276$                                       ;
                  50 00000000G         8F D0 00F4D 275$:   MOVL    #LIB$_INTOVF, R0                               ;
                                       04    00F54      RET                                                    ;
                              00E0     8F B9 00F55 276$:   BICPSW  #224                                           ; 2304
                       68        60    AE 6B 00F59      CVTRDL  TEMP_BUF1, (OUTPUT)                            ; 2305
                              00E0     8F B8 00F5D 277$:   BISPSW  #224                                           ; 2306
                                 6C       11 00F61 278$:   BRB     287$                                           ; 2288
                 24    AE        FD    AD B0 00F63 279$:   MOVW    SRC_INFO+5, CLASS_S_DESC                       ; 2311
                 28    AE        F9    AD D0 00F68      MOVL    SRC_INFO+1, CLASS_S_DESC+4                     ; 2312
                       7E        55    8F 9A 00F6D      MOVZBL  #85, -(SP)                                     ; 2314
                       7E        24    AE CE 00F71      MNEGL   SCALE, -(SP)                                   ; 2313
                                       7E D4 00F75      CLRL    -(SP)                                          ;
                                 6C    AE 9F 00F77      PUSHAB  TEMP_BUF1                                      ;
                                 34    AE 9F 00F7A      PUSHAB  CLASS_S_DESC                                   ;
          00000000G    00              05 FB 00F7D      CALLS   #5, OTS$CVT_T_H                                ;
                       6E              50 D0 00F84      MOVL    R0, STATUS                                     ;
                       61              6E E9 00F87 280$:   BLBC    STATUS, 289$                                   ; 2316
                       50        60    AE 9E 00F8A 281$:   MOVAB   TEMP_BUF1, R0                                  ; 2318
                       51              58 D0 00F8E 282$:   MOVL    OUTPUT, R1                                     ;
                          00000000G    00 16 00F91      JSB     LIB$$CVT_CVTRHQ_R1                             ;
                                       5A 11 00F97      BRB     290$                                           ; 2288
                 24    AE        FD    AD B0 00F99 283$:   MOVW    SRC_INFO+5, CLASS_S_DESC                       ; 2329
                 28    AE        F9    AD D0 00F9E      MOVL    SRC_INFO+1, CLASS_S_DESC+4                     ; 2330
             01        1B              69 8F 00FA3      CASEB   (R9), #27, #1                                  ; 2332
                  002A           0007       00FA7 284$:   .WORD   286$-284$,-                                    ;
                                                                288$-284$                                      ;
                                0121   31 00FAB 285$:   BRW     303$                                           ; 2357
                       7E        55    8F 9A 00FAE 286$:   MOVZBL  #85, -(SP)                                     ; 2338
                       7E        24    AE CE 00FB2      MNEGL   SCALE, -(SP)                                   ; 2337
                                       7E D4 00FB6      CLRL    -(SP)                                          ;
                                 6C    AE 9F 00FB8      PUSHAB  TEMP_BUF1                                      ;
                                 34    AE 9F 00FBB      PUSHAB  CLASS_S_DESC                                   ;
          00000000G    00              05 FB 00FBE      CALLS   #5, OTS$CVT_T_G                                ;
                       6E              50 D0 00FC5      MOVL    R0, STATUS                                     ;
                       66              6E E9 00FC8      BLBC    STATUS, 294$                                   ; 2340
                       68        60    AE 7D 00FCB      MOVQ    TEMP_BUF1, (OUTPUT)                            ; 2342
                                       22 11 00FCF 287$:   BRB     290$                                           ; 2332
```

```
                                7E          55    8F  9A 00FD1 288$:   MOVZBL  #85, -(SP)                          ; 2349
                                7E          24    AE  CE 00FD5      MNEGL   SCALE, -(SP)                         ; 2348
                                                  7E  D4 00FD9      CLRL    -(SP)                                ;
                                            6C    AE  9F 00FDB      PUSHAB  TEMP_BUF1                            ;
                                            34    AE  9F 00FDE      PUSHAB  CLASS_S_DESC                         ;
                        00000000G   00              05  FB 00FE1      CALLS   #5, OTS$CVT_T_H                      ;
                                    6E              50  D0 00FE8      MOVL    R0, STATUS                           ;
                                    43              6E  E9 00FEB 289$: BLBC    STATUS, 294$                         ; 2351
                    68      60      AE              10  28 00FEE      MOVC3   #16, TEMP_BUF1, (OUTPUT)             ; 2353
                                                00E1    31 00FF3 290$: BRW     304$                                 ; 1226
                                    02              69  91 00FF6 291$: CMPB    (R9), #2                             ; 2368
                                                    0A  13 00FF9      BEQL    292$                                 ;
                                    0E              69  91 00FFB      CMPB    (R9), #14                            ;
                                                    05  13 00FFE      BEQL    292$                                 ;
                                    25              69  91 01000      CMPB    (R9), #37                            ;
                                                    A6  12 01003      BNEQ    285$                                 ;
                                            20      AE  D5 01005 292$: TSTL    SCALE                                ; 2371
                                                    03  12 01008      BNEQ    293$                                 ;
                                                009A    31 0100A      BRW     300$                                 ;
                                24      AE      FD      AD  B0 0100D 293$: MOVW    SRC_INFO+5, CLASS_S_DESC             ; 2374
                                28      AE      F9      AD  D0 01012      MOVL    SRC_INFO+1, CLASS_S_DESC+4           ; 2375
                                        7E      55      8F  9A 01017      MOVZBL  #85, -(SP)                           ; 2377
                                        7E      24      AE  CE 0101B      MNEGL   SCALE, -(SP)                         ; 2376
                                                        7E  D4 0101F      CLRL    -(SP)                                ;
                                                6C      AE  9F 01021      PUSHAB  TEMP_BUF1                            ;
                                                34      AE  9F 01024      PUSHAB  CLASS_S_DESC                         ;
                        00000000G   00                      05  FB 01027      CALLS   #5, OTS$CVT_T_H                      ;
                                    6E                      50  D0 0102E      MOVL    R0, STATUS                           ;
                                    6B                      6E  E9 01031 294$: BLBC    STATUS, 299$                         ; 2379
                                24      AE                  32  B0 01034      MOVW    #50, CLASS_S_DESC                    ; 2382
                                28      AE              2C      AE  9E 01038      MOVAB   TEMP_BUF2, CLASS_S_DESC+4    ; 2383
                                        09              F5      AD  B1 0103D      CMPW    DST_INFO+5, #9                       ; 2385
                                                                05  1A 01041      BGTRU   295$                         ;
                                        57                      21  D0 01043      MOVL    #33, DIGITS_IN_FRACT         ; 2387
                                                                12  11 01046      BRB     297$                         ;
                                        50              F5      AD  3C 01048 295$: MOVZWL  DST_INFO+5, R0               ; 2389
                                        50                      09  C2 0104C      SUBL2   #9, R0                       ;
                                        21                      50  D1 0104F      CMPL    R0, #33                      ;
                                                                03  15 01052      BLEQ    296$                         ;
                                        50                      21  D0 01054      MOVL    #33, R0                      ;
                                        57                      50  D0 01057 296$: MOVL    R0, DIGITS_IN_FRACT          ;
                                                                04  DD 0105A 297$: PUSHL   #4                          ; 2391
                                                                7E  D4 0105C      CLRL    -(SP)                        ;
                                                                57  DD 0105E      PUSHL   DIGITS_IN_FRACT              ;
                                                        30      AE  9F 01060      PUSHAB  CLASS_S_DESC                 ;
                                                        70      AE  9F 01063      PUSHAB  TEMP_BUF1                    ;
                                    00000000G   00              05  FB 01066      CALLS   #5, FOR$CVT_H_TE             ;
                                                6E              50  D0 0106D      MOVL    R0, STATUS                   ;
                                                5C              6E  E9 01070      BLBC    STATUS, 303$                 ; 2393
                    2C  AE                      32              20  3B 01073      SKPC    #32, #50, TEMP_BUF2          ; 2395
                                                                02  12 01078      BNEQ    298$                         ;
                                                                51  D4 0107A      CLRL    R1                           ;
                                                        50      2C      AE  9E 0107C 298$: MOVAB   TEMP_BUF2, R0        ;
                                                56      51              50  C3 01080      SUBL3   R0, R1, BUF_OFFSET   ;
                                                54      32              56  C3 01084      SUBL3   BUF_OFFSET, #50, FINAL_LEN   ; 2396
                                                    10  AE              54  D0 01088      MOVL    FINAL_LEN, OUTPUT_STR_LEN    ; 2397
                                                        51      2C  AE46    9E 0108C      MOVAB   TEMP_BUF2[BUF_OFFSET], R1    ; 2398
```

```
                        52              5B  D0 01091          MOVL    R11, R2                                 ;
                        50              54  D0 01094          MOVL    FINAL_LEN, R0                           ;
                           00000000G    00  16 01097          JSB     LIB$SCOPY_R_DX6                         ;
                                        15  11 0109D          BRB     301$                                    ;
                        50 00000000G    8F  D0 0109F 299$:    MOVL    #LIB$_INVNBDS, R0                       ; 2406
                                            04 010A6          RET                                             ;
                  10    AE                6A  3C 010A7 300$:    MOVZWL  (R10), OUTPUT_STR_LEN                   ; 2411
                        50                5A  7D 010AB          MOVQ    R10, R0                                 ; 2412
                           00000000G    00  16 010AE          JSB     LIB$SCOPY_DXDX6                         ;
                     6E                 50  D0 010B4 301$:    MOVL    R0, STATUS                              ;
          00000000G  8F                 6E  D1 010B7          CMPL    STATUS, #LIB$_STRTRU                    ; 2414
                                        08  12 010BE          BNEQ    302$                                    ;
                        50 00000000G    8F  D0 010C0          MOVL    #LIB$_OUTSTRTRU, R0                     ;
                                            04 010C7          RET                                             ;
                     0C                 6E  E8 010C8 302$:    BLBS    STATUS, 304$                            ; 2416
                        50              6E  D0 010CB          MOVL    STATUS, R0                              ;
                                            04 010CE          RET                                             ;
                        50 00000000G    8F  D0 010CF 303$:    MOVL    #LIB$_FATERRLIB, R0                     ; 2423
                                            04 010D6          RET                                             ;
                        02              6C  91 010D7 304$:    CMPB    (AP), #2                                ; 2432
                                        05  1B 010DA          BLEQU   305$                                    ;
                  0C    BC        10    AE  B0 010DC          MOVW    OUTPUT_STR_LEN, @OUTLEN                 ;
                        50              01  D0 010E1 305$:    MOVL    #1, R0                                  ; 2435
                                            04 010E4          RET                                             ; 2436
                                          0000 010E5 306$:    .WORD   Save nothing                            ; 0754
                                        7E  D4 010E7          CLRL    -(SP)                                   ;
                                        5E  DD 010E9          PUSHL   SP                                      ;
                        7E        04    AC  7D 010EB          MOVQ    4(AP), -(SP)                            ;
                0000V   CF              03  FB 010EF          CALLS   #3, CVT_HANDLER                         ;
                                            04 010F4          RET                                             ;

; Routine Size:  4341 bytes,    Routine Base:  _LIB$CODE + 0154

; 2368          2437  1
; 2369          2438  1 !<BLF/PAGE>
```

```
;  2372          2439  1 %SBTTL 'The error handler for conversion routine'
;  2373          2440  1 ROUTINE CVT_HANDLER (                                 ! Conversion routine's handler
;  2374          2441  1                      SIG                              ! Signal arguments.
;  2375          2442  1                    , MECH                             ! Mechanism arguments.
;  2376          2443  1                    ) =
;  2377          2444  1
;  2378          2445  1 !++
;  2379          2446  1 ! FUNCTIONAL DESCRIPTION:
;  2380          2447  1 !
;  2381          2448  1 !       This handler will resignal opcode reserved to digital and call
;  2382          2449  1 !       LIB$SIG_TO_RET for every other case.
;  2383          2450  1 !
;  2384          2451  1 ! FORMAL PARAMETERS:
;  2385          2452  1 !
;  2386          2453  1 !       SIG.rr.r        A counted vector of parameters describing the condition.
;  2387          2454  1 !       MECH.rr.r       A counted vector of parameters from CHF.
;  2388          2455  1 !
;  2389          2456  1 ! IMPLICIT INPUTS:
;  2390          2457  1 !
;  2391          2458  1 !       NONE
;  2392          2459  1 !
;  2393          2460  1 ! IMPLICIT OUTPUTS:
;  2394          2461  1 !
;  2395          2462  1 !       NONE
;  2396          2463  1 !
;  2397          2464  1 ! COMPLETION STATUS: (or ROUTINE VALUE:)
;  2398          2465  1 !
;  2399          2466  1 !       SS$_RESIGNAL when opcode reserved to digital exception, any other case
;  2400          2467  1 !       will result in an unwind to the caller of establisher with R0 containing
;  2401          2468  1 !       the condition value.
;  2402          2469  1 !
;  2403          2470  1 ! SIDE EFFECTS:
;  2404          2471  1 !
;  2405          2472  1 !       NONE
;  2406          2473  1 !
;  2407          2474  1 !--
;  2408          2475  1
;  2409          2476  2     BEGIN
;  2410          2477  2
;  2411          2478  2     EXTERNAL ROUTINE
;  2412          2479  2         LIB$SIG_TO_RET : NOVALUE,
;  2413          2480  2         LIB$MATCH_COND;
;  2414          2481  2
;  2415          2482  2     MAP
;  2416          2483  2         SIG : REF VECTOR,
;  2417          2484  2         MECH : REF VECTOR;
;  2418          2485  2
;  2419          2486  2 !+
;  2420          2487  2 !Call LIB$SIG_TO_RET if this is not an UNWIND, or opcode reserved to digital.
;  2421          2488  2 !Otherwise resignal.  If caller of LIB$CVT_DX_DX has LIB$EMULATE then it will
;  2422          2489  2 !be given the chance to handle the fault.  In case of UNWIND the SS$_RESIGNAL
;  2423          2490  2 !is of course ignored.
;  2424          2491  2 !-
;  2425          2492  2
;  2426          2493  2     IF (LIB$MATCH_COND (SIG [1], %REF (SS$_UNWIND), %REF (SS$_OPCDEC))) GTR 0 THEN RETURN (SS$_RESIGNAL);
;  2427          2494  2
;  2428          2495  2 !+
```

```
; 2429      2496  2 !Translate all numeric exceptions to this facility's code.
; 2430      2497  2 !Also, translate SS$_ROPRAND to LIB$_ROPRAND.
; 2431      2498  2 !-
; 2432      2499  3     SIG [1] = (SELECTONE .SIG [1] OF
; 2433      2500  3         SET
; 2434      2501  3         [SS$_INTOVF] : LIB$_INTOVF;
; 2435      2502  3         [SS$_DECOVF] : LIB$_DECOVF;
; 2436      2503  3         [SS$_FLTOVF, SS$_FLTOVF_F] : LIB$_FLTOVF;
; 2437      2504  3         [SS$_FLTUND, SS$_FLTUND_F] : LIB$_FLTUND;
; 2438      2505  3         [SS$_ROPRAND] : LIB$_ROPRAND;
; 2439      2506  3         [OTHERWISE] : .SIG [1];
; 2440      2507  2         TES);
; 2441      2508  2     LIB$SIG_TO_RET (.SIG, .MECH);
; 2442      2509  2     RETURN 1;                                   ! Never gets here.
; 2443      2510  1     END;                                        ! End of CVT_HANDLER


                                                                .EXTRN  LIB$SIG_TO_RET, LIB$MATCH_COND

                                          0004 00000 CVT_HANDLER:
                                                                .WORD   Save R2                              ; 2440
                     5E                08   C2 00002            SUBL2   #8, SP                               ;
             04      AE          043C  8F   3C 00005            MOVZWL  #1084, 4(SP)                         ; 2493
                                   04  AE   9F 0000B            PUSHAB  4(SP)                                ;
             04      AE          0920  8F   3C 0000E            MOVZWL  #2336, 4(SP)                         ;
                                   04  AE   9F 00014            PUSHAB  4(SP)                                ;
                     52            04  AC   D0 00017            MOVL    SIG, R2                              ;
                                   04  A2   9F 0001B            PUSHAB  4(R2)                                ;
      00000000G      00                03   FB 0001E            CALLS   #3, LIB$MATCH_COND                   ;
                                       50   D5 00025            TSTL    R0                                   ;
                                       06   15 00027            BLEQ    1$                                   ;
                     50          0918  8F   3C 00029            MOVZWL  #2328, R0                            ;
                                            04 0002E            RET                                          ;
                     50            04  A2   D0 0002F  1$:       MOVL    4(R2), R0                            ; 2499
      0000047C       8F                50   D1 00033            CMPL    R0, #1148                            ; 2501
                                       09   12 0003A            BNEQ    2$                                   ;
                     50 00000000G      8F   D0 0003C            MOVL    #LIB$_INTOVF, R0                     ;
                                       5E   11 00043            BRB     9$                                   ;
      000004A4       8F                50   D1 00045  2$:       CMPL    R0, #1188                            ; 2502
                                       09   12 0004C            BNEQ    3$                                   ;
                     50 00000000G      8F   D0 0004E            MOVL    #LIB$_DECOVF, R0                     ;
                                       4C   11 00055            BRB     9$                                   ;
      0000048C       8F                50   D1 00057  3$:       CMPL    R0, #1164                            ; 2503
                                       09   13 0005E            BEQL    4$                                   ;
      000004B4       8F                50   D1 00060            CMPL    R0, #1204                            ;
                                       09   12 00067            BNEQ    5$                                   ;
                     50 00000000G      8F   D0 00069  4$:       MOVL    #LIB$_FLTOVF, R0                     ;
                                       31   11 00070            BRB     9$                                   ;
      0000049C       8F                50   D1 00072  5$:       CMPL    R0, #1180                            ; 2504
                                       09   13 00079            BEQL    6$                                   ;
      000004C4       8F                50   D1 0007B            CMPL    R0, #1220                            ;
                                       09   12 00082            BNEQ    7$                                   ;
                     50 00000000G      8F   D0 00084  6$:       MOVL    #LIB$_FLTUND, R0                     ;
                                       16   11 0008B            BRB     9$                                   ;
      00000454       8F                50   D1 0008D  7$:       CMPL    R0, #1108                            ; 2505
                                       09   12 00094            BNEQ    8$                                   ;
```

```
                                50 00000000G  8F  D0 00096          MOVL    #LIB$_ROPRAND, R0                       ;
                                              04  11 0009D          BRB     9$                                      ;
                                50        04  A2  D0 0009F  8$:    MOVL    4(R2), R0                               ; 2506
                             04 A2            50  D0 000A3  9$:    MOVL    R0, 4(R2)                               ; 2499
                                7E        04  AC  7D 000A7          MOVQ    SIG, -(SP)                              ; 2508
                   00000000G 00              02  FB 000AB          CALLS   #2, LIB$SIG_TO_RET                      ;
                                50             01  D0 000B2          MOVL    #1, R0                                  ; 2509
                                               04 000B5          RET                                             ; 2510

; Routine Size:  182 bytes,    Routine Base:  _LIB$CODE + 1249

; 2444          2511  1 END                                        ! End of module LIB$CVTDXDX.
; 2445          2512  1
; 2446          2513  0 ELUDOM



;                                  PSECT SUMMARY
;
;       Name                    Bytes                           Attributes
;
;  _LIB$CODE                      4863  NOVEC,NOWRT,  RD ,  EXE,  SHR,  LCL,  REL,  CON,  PIC,ALIGN(2)


;                               Library Statistics
;
;                                        -------- Symbols --------      Pages       Processing
;       File                             Total    Loaded   Percent      Mapped      Time
;
;  _$255$DUA28:[SYSLIB]STARLET.L32;1      9776        36         0       581          00:00.7



;                                     COMMAND QUALIFIERS

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

; Size:         4523 code + 340 data bytes
; Run Time:        01:02.6
; Elapsed Time:    04:11.9
; Lines/CPU Min:     2407
; Lexemes/CPU-Min: 19978
; Memory Used:  1281 pages
; Compilation Complete
```

LIBCVTDX
LIS

LIBCVTMAC
LIS

LIBCRCTAB
LIS

LIBCVTDF
LIS

LIBCUSTOM
LIS

LIBCREDIR
LIS

LIBCUTATB
LIS

LIBCOMMON
LIS

LIBCRC
LIS