Source and Listings

CEEIVP

```
*/*****************************************************************
*                                                                 *
*  Licensed Materials - Property of IBM                           *
*                                                                 *
*  5694-A01                                                       *
*                                                                 *
*      Copyright IBM Corp. 1991,  2008                            *
*                                                                 *
*  Status = HLE7750                                               *
*                                                                 *
*****************************************************************/*
* ===================================================================
*
*   Show a simple main assembler routine that brings up the environment
*   and returns with a return code of 0.
*
* ===================================================================
         SYSSTATE ARCHLVL=2            Arch level
         IEABRCX DEFINE                Use relative branch
         IEABRCX ENABLE                Use relative branch
* ===================================================================
CEEIVP   CEEENTRY PPA=MAINPPA,AUTO=WORKSIZE
         USING WORKAREA,R13
*
*   It is unlucky to change R12 or R13!
*
         LA       R02,80          Set the size to 80 Chars for the
         STH      R02,DATE_LEN    ...length field
*
*   Setup the parameter list to CEELOCT. Omit the feedback code.
*
         LA       R02,LILIAN
```

```
         LA       R03,SECS
         LA       R04,GREG
         LA       R05,00          No FBCode here! Wait for a Signal
         STM      R02,R05,PLIST
*
*   Point to the parameter list and call CEELOCT
*
         LA       R01,PLIST
         L        R15,LOCT
         BALR     R14,R15
* ---------------------------------------------------------------------
*   Top of the loop. Use R3 to index thru the different patterns
*   R6 is the loop counter
*
         LA       R06,PATTERNS    Get the total number of patterns
         LA       R07,PATTERN1    Get the first pattern
*
TOP_O_LOOP       EQU  *
*
*   Setup the parameter list to CEEDATM. Omit the feedback code.
*
         LA       R02,SECS
         LR       R03,R07         Get the pattern address
         LA       R04,DATE_OUT
         LA       R05,00          Omit the Feedback Code
         STM      R02,R05,PLIST
*
*   Point to the parameter list and call CEEDATM
*
*
*     Note: The calls to CEEDATM in this sample program are only
*           simplified examples.
*
*           More robust applications should not pass complete
*           messages to CEEDATM for formatting, in order to avoid
*           inadvertent substitution for any 'Y', 'M', etc., found
*           in the message text.  See CEEDATM in the documentation
*           for more information.
*
         LA       R01,PLIST
```

```
         L        R15,DATM
         BALR     R14,R15
*
*   Setup the parameter list to CEEMOUT. Omit the feedback code.
*
         LA       R02,TODAY       Point to today's date
         LA       R03,DEST
         LA       R04,00          Omit the feedback code
         STM      R02,R04,PLIST
*
*   Point to the parameter list and call CEEMOUT
*
         LA       R01,PLIST
         L        R15,MOUT
         BALR     R14,R15
*
         LA       R07,PAT_SIZE(,R07)     Move to the next pattern
         BCT      R06,TOP_O_LOOP         Branch to the top
* ---------------------------------------------------------------------
*
*   Setup the parameter list to CEEMOUT. Do not omit the feedback code.
*
         LA       R02,DONE_MSG
         LA       R03,DEST
         LA       R04,FBCODE
         STM      R02,R04,PLIST
*
*   Point to the parameter list and call CEEMOUT
*
         LA       R01,PLIST
         L        R15,MOUT
         BALR     R14,R15
*
*   Terminate the CEL environment and return to the caller
*
         CEETERM  RC=0
* =====================================================================
*              CONSTANTS
* =====================================================================
MOUT     DC     V(CEEMOUT)        The CEL Message service
```

```
LOCT     DC     V(CEELOCT)         The CEL Local date/time
DATM     DC     V(CEEDATM)         The CEL date formatter
*
DONE_MSG DS     0F
         DC     AL2(DONE_END-DONE_ST)
DONE_ST  DC     C'Program Complete.'
DONE_END EQU    *
*
PATTERNS EQU    4                  The number of patterns here
PAT_SIZE EQU    82                 THE SIZE OF EACH PATTERN
PATTERN1 DC     H'80',CL80'Today is Wwwwwwwwwz, ZD Mmmmmmmmz YYYY.'
PATTERN2 DC     H'80',CL80'Today is WWWWWWWWWZ, MMMMMMMMZ ZD, YYYY.'
PATTERN3 DC     H'80',CL80'Today is Wwwwwwwwwz, MM/DD/YY HH:MI:SS.99'
PATTERN4 DC     H'80',CL80'Today is day DDD of YYYY'
*
DEST     DC     F'2'               The destination is the MSGFILE
*
MAINPPA  CEEPPA                    Constants descibing the code block
* ==================================================================
*        The Workarea and DSA
* ==================================================================
WORKAREA DSECT
         ORG    *+CEEDSASZ         Leave space for the DSA fixed part
PLIST    DS     0D
PARM1    DS     A
PARM2    DS     A
PARM3    DS     A
PARM4    DS     A
PARM5    DS     A
*
LILIAN   DS     F                  Lilian Output
SECS     DS     D                  Current local date/time in seconds
GREG     DS     CL17               Gregorian output in chars
FBCODE   DS     3F                 Space for a 12 byte feedback code
*
TODAY    DS     0D                 Space for the CEEMOUT written
DATE_LEN DS     H                  ... today's date
DATE_OUT DS     CL80
*
         DS     0D
```

```
WORKSIZE EQU    *-WORKAREA
         CEEDSA                 Mapping of the Dynamic Save Area
         CEECAA                 Mapping of the Common Anchor Area
*
R00      EQU   0,,,,GR32
R01      EQU   1,,,,GR32
R02      EQU   2,,,,GR32
R03      EQU   3,,,,GR32
R04      EQU   4,,,,GR32
R05      EQU   5,,,,GR32
R06      EQU   6,,,,GR32
R07      EQU   7,,,,GR32
R08      EQU   8,,,,GR32
R09      EQU   9,,,,GR32
R10      EQU   10,,,,GR32
R11      EQU   11,,,,GR32
R12      EQU   12,,,,GR32
R13      EQU   13,,,,GR32
R14      EQU   14,,,,GR32
R15      EQU   15,,,,GR32
         END   CEEIVP           Nominate CEEIVP as the entry point
```

```
1                                  High Level Assembler Option Summary                 (PTF UK80712)   Page    1
-                                                                                     HLASM R6.0  2013/08/10 20.09
0  No Overriding ASMAOPT Parameters
   Overriding Parameters-  NORENT,ADATA,,NORENT,XREF(FULL),SIZE(800K),WORKFILE,LIST(MAX),GOFF
   No Process Statements


   Options for this Assembly
03   ADATA
     ALIGN
   NOASA
   NOBATCH
     CODEPAGE(047C)
   NOCOMPAT
   NODBCS
   NODECK
     DXREF
     ESD
   NOEXIT
     FLAG(0,ALIGN,NOCONT,EXLITW,NOIMPLEN,NOPAGE0,PUSH,RECORD,NOSUBSTR,USING0)
```

```
   NOFOLD
 3   GOFF(NOADATA)
   NOINFO
     LANGUAGE(EN)
   NOLIBMAC
     LINECOUNT(60)
 3   LIST(MAX)
     MACHINE(,NOLIST)
     MXREF(SOURCE)
     OBJECT
     OPTABLE(UNI,NOLIST)
   NOPCONTROL
   NOPESTOP
   NOPROFILE
   NORA2
 3 NORENT
     RLD
     RXREF
     SECTALGN(8)
 3   SIZE(800K)
   NOSUPRWARN
     SYSPARM()
   NOTERM
   NOTEST
     THREAD
   NOTRANSLATE
     TYPECHECK(MAGNITUDE,REGISTER)
     USING(NOLIMIT,MAP,NOWARN)
 3   WORKFILE
 3   XREF(FULL)

   No Overriding DD Names
1                                    External Symbol Dictionary                                Page    2
-Symbol   Type   Id     Address  Length   Owner Id Flags Alias-of                    HLASM R6.0  2013/08/10 20.09
0CEEIVP    SD 00000001
 B_IDRL    ED 00000002                     00000001
 B_PRV     ED 00000003                     00000001
 B_TEXT    ED 00000004 00000000 00000304   00000001   07
 CEEIVP    LD 00000005 00000000            00000004   07
 CEEINT    ER 00000006                     00000001
 CEEMAIN   SD 00000007
 B_IDRL    ED 00000008                     00000007
 B_PRV     ED 00000009                     00000007
 B_TEXT    ED 0000000A 00000308 00000008   00000007   07
 CEEMAIN   LD 0000000B 00000308            0000000A   07
 CEEMOUT   ER 0000000C                     00000007
 CEELOCT   ER 0000000D                     00000007
 CEEDATM   ER 0000000E                     00000007
 CEESTART  ER 0000000F                     00000007
 CEEBETBL  ER 00000010                     00000007
```

```
 CEETREC   ER 00000011                   00000007
1                                                                                Page    3
   Active Usings: None
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                HLASM R6.0  2013/08/10 20.09
0                                              1 */*****************************************************************
                                               2 *                                                               *
                                               3 *  Licensed Materials - Property of IBM                         *
                                               4 *                                                               *
                                               5 *  5694-A01                                                     *
                                               6 *                                                               *
                                               7 *      Copyright IBM Corp. 1991,  2008                          *
                                               8 *                                                               *
                                               9 *  Status = HLE7750                                             *
                                              10 *                                                               *
                                              11 *****************************************************************/*
                                              12 * ===============================================================
                                              13 *
                                              14 *   Show a simple main assembler routine that brings up the environment
                                              15 *   and returns with a return code of 0.
                                              16 *
                                              17 * ===============================================================
                                              18         SYSSTATE ARCHLVL=2            Arch level
                                              19+*        THE VALUE OF SYSSTATE IS NOW SET TO ASCENV=P AMODE64=NO ARCHLVX01-SYSSTATE
                                                +              L=2 OSREL=00000000
                                              20         IEABRCX DEFINE                Use relative branch
                                             339         IEABRCX ENABLE                Use relative branch
                                             364 * ===============================================================
                                             365 CEEIVP   CEEENTRY PPA=MAINPPA,AUTO=WORKSIZE
 00000000                 00000000 00000304  366+CEEIVP  CSECT ,                                                  01-CEEENTRY
                                             367+CEEIVP  RMODE ANY                                        @D2A  01-CEEENTRY
                                             368+CEEIVP  AMODE ANY                                        @D2A  01-CEEENTRY
                                             369+          ENTRY CEEIVP                                        01-CEEENTRY
                                             370+         PUSH  USING                                          01-CEEENTRY
                                             371+         DROP  ,                                        @02A  01-CEEENTRY
                     R:F 00000000            372+         USING *,15                                           01-CEEENTRY
 00000000 A7F4 000A              00000014    375+         BRC   15,CEEZ0004  (BC)                              03-00000192
 00000004 00C3C5C5                           376+         DC    X'00C3C5C5'                                    01-CEEENTRY
                     00000118                377+CEEY0004    EQU ((WORKSIZE+7)/8)*8                           X01-CEEENTRY
                                               +                                . Size of automatic storage.    @P1A
 00000008 00000118                           378+         DC    A(CEEY0004)        . Size of automatic storage.    @P1C  01-CEEENTRY
 0000000C 00000288                           379+         DC    A(MAINPPA-CEEIVP)  . Address of PPA for this program     01-CEEENTRY
 00000010 47F0 F001              00000001    382+         BC_   15,1(,15)                                       03-00000195
                     00000014                383+CEEZ0004    EQU *                                            01-CEEENTRY
 00000014 90EC D00C              0000000C    384+         STM   14,12,CEEDSAR14-CEEDSA(13)                     01-CEEENTRY
 00000018 5820 F050              00000050    385+         L     2,CEEINPL0004        R2=addr(CEEINPL)        5@01D @01C  01-CEEENTRY
 0000001C 58F0 F054              00000054    386+         L     15,CEEINT0004        R15=addr(CEEINT)              @01C  01-CEEENTRY
                                             387+         DROP  15                                             @01A  01-CEEENTRY
 00000020 05EF                               388+         BALR  14,15                Call CEEINT to init LE          01-CEEENTRY
 00000022 1821                               389+         LR    2,1                  Save input R1 value temporarily 01-CEEENTRY
 00000024 58E0 C2F0              000002F0    390+         L     14,752(,12)          Get EDB address                 01-CEEENTRY
```

```
 00000028 9680 E008      00000008             391+         OI    8(14),X'80'          Turn CEEEDBMAINI flag ON            01-CEEENTRY
 0000002C 5810 D04C                0000004C    392+         L     1,CEEDSANAB-CEEDSA(,13)  Get the current NAB              01-CEEENTRY
 00000030 A502 0000                00000000    393+         IILH  0,CEEY0004/65536        Load high half of AUTO size@P1A  01-CEEENTRY
 00000034 A503 0118                00000118    394+         IILL  0,CEEY0004-(CEEY0004/65536*65536)       and low    @P1A  01-CEEENTRY
 00000038 1E01                                 395+         ALR   0,1                    Compute new value.                  01-CEEENTRY
 0000003A 5500 C00C                0000000C    396+         CL    0,CEECAAEOS-CEECAA(,12)  Compare with EOS.              01-CEEENTRY
 0000003E A7D4 000D                00000058    397+         JNH   CEEX0004                                          @P1C  01-CEEENTRY
 00000042 58F0 C2BC                000002BC    398+         L     15,CEECAAGETS-CEECAA(,12) Get address overflow routine  01-CEEENTRY
 00000046 05EF                                 399+         BALR  14,15                  Get another stack segment.          01-CEEENTRY
1                                                                                                        Page    4
   Active Usings (1):None
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
000000048 181F                                 400+         LR    1,15                                                01-CEEENTRY
 0000004A A7F4 0007                00000058    401+         J     CEEX0004               Branch around statics      @P1C  01-CEEENTRY
 0000004E 0000
 00000050 000002B0                             402+CEEINPL0004    DC    A(CEEINPL)                                    @01A  01-CEEENTRY
 00000054 00000000                             403+CEEINT0004     DC    V(CEEINT)                                     @01A  01-CEEENTRY
                     00000058                  404+CEEX0004    EQU *                                                     01-CEEENTRY
 00000058 50D0 1004                00000004    405+         ST    13,CEEDSABKC-CEEDSA(,1)  Set back chain.                01-CEEENTRY
 0000005C 5000 104C                0000004C    406+         ST    0,CEEDSANAB-CEEDSA(,1)   Set new NAB value              01-CEEENTRY
 00000060 D701 1000 1000 00000000  00000000    407+         XC    CEEDSAFLAGS-CEEDSA(,1),CEEDSAFLAGS-CEEDSA(1) . Clear    01-CEEENTRY
 00000066 5010 D008                00000008    408+         ST    1,CEEDSAFWC-CEEDSA(,13)  Set forward chain.             01-CEEENTRY
 0000006A 18D1                                 409+         LR    13,1                   Set save area address            01-CEEENTRY
                                               410+         POP   USING                  Clear any temporary usings @P1M  01-CEEENTRY
                   R:D 00000000                411+         USING CEEDSA,13              Addresability to SF     V1R2M0   01-CEEENTRY
 0000006C D203 D048 C280 00000048  00000280    412+         MVC   CEEDSALWS,CEECAALWS-CEECAA(12) Get LWS addr     V1R2M0   01-CEEENTRY
 00000072 1812                                 413+         LR    1,2                    Move input r1 value to PARMREG   01-CEEENTRY
 00000074 C0B0 FFFF FFC6           00000000    414+         LARL  11,CEEIVP               Load EP into 1st base reg @P1C  01-CEEENTRY
                  R:B 00000000                 415+         USING CEEIVP,11                                        @P1M  01-CEEENTRY
                  R:D 00000000                 416          USING WORKAREA,R13
                                               417 *
                                               418 *   It is unlucky to change R12 or R13!
                                               419 *
 0000007A 4120 0050                00000050    420          LA       R02,80          Set the size to 80 Chars for the
 0000007E 4020 D0C0                000000C0    421          STH      R02,DATE_LEN    ...length field
                                               422 *
                                               423 *   Setup the parameter list to CEELOCT. Omit the feedback code.
                                               424 *
 00000082 4120 D094                00000094    425          LA       R02,LILIAN
 00000086 4130 D098                00000098    426          LA       R03,SECS
 0000008A 4140 D0A0                000000A0    427          LA       R04,GREG
 0000008E 4150 0000                00000000    428          LA       R05,00          No FBCode here! Wait for a Signal
 00000092 9025 D080                00000080    429          STM      R02,R05,PLIST
                                               430 *
                                               431 *   Point to the parameter list and call CEELOCT
                                               432 *
 00000096 4110 D080                00000080    433          LA       R01,PLIST
 0000009A 58F0 B120                00000120    434          L        R15,LOCT
 0000009E 05EF                                 435          BALR     R14,R15
                                               436 * ------------------------------------------------------------------
```

```
                                                 437 *   Top of the loop. Use R3 to index thru the different patterns
                                                 438 *   R6 is the loop counter
                                                 439 *
 000000A0 4160 0004               00000004       440          LA       R06,PATTERNS    Get the total number of patterns
 000000A4 4170 B13C               0000013C       441          LA       R07,PATTERN1    Get the first pattern
                                                 442 *
                        000000A8                 443 TOP_O_LOOP        EQU  *
                                                 444 *
                                                 445 *   Setup the parameter list to CEEDATM. Omit the feedback code.
                                                 446 *
 000000A8 4120 D098               00000098       447          LA       R02,SECS
 000000AC 1837                                   448          LR       R03,R07         Get the pattern address
 000000AE 4140 D0C2               000000C2       449          LA       R04,DATE_OUT
 000000B2 4150 0000               00000000       450          LA       R05,00          Omit the Feedback Code
 000000B6 9025 D080               00000080       451          STM      R02,R05,PLIST
                                                 452 *
                                                 453 *   Point to the parameter list and call CEEDATM
1                                                                                                    Page    5
   Active Usings: CEEIVP,R11  WORKAREA,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
0                                                454 *
                                                 455 *
                                                 456 *     Note: The calls to CEEDATM in this sample program are only
                                                 457 *           simplified examples.
                                                 458 *
                                                 459 *           More robust applications should not pass complete
                                                 460 *           messages to CEEDATM for formatting, in order to avoid
                                                 461 *           inadvertent substitution for any 'Y', 'M', etc., found
                                                 462 *           in the message text.  See CEEDATM in the documentation
                                                 463 *           for more information.
                                                 464 *
 000000BA 4110 D080               00000080       465          LA       R01,PLIST
 000000BE 58F0 B124               00000124       466          L        R15,DATM
 000000C2 05EF                                   467          BALR     R14,R15
                                                 468 *
                                                 469 *   Setup the parameter list to CEEMOUT. Omit the feedback code.
                                                 470 *
 000000C4 4120 D0C0               000000C0       471          LA       R02,TODAY       Point to today's date
 000000C8 4130 B284               00000284       472          LA       R03,DEST
 000000CC 4140 0000               00000000       473          LA       R04,00          Omit the feedback code
 000000D0 9024 D080               00000080       474          STM      R02,R04,PLIST
                                                 475 *
                                                 476 *   Point to the parameter list and call CEEMOUT
                                                 477 *
 000000D4 4110 D080               00000080       478          LA       R01,PLIST
 000000D8 58F0 B11C               0000011C       479          L        R15,MOUT
 000000DC 05EF                                   480          BALR     R14,R15
                                                 481 *
 000000DE 4170 7052               00000052       482          LA       R07,PAT_SIZE(,R07)     Move to the next pattern
                                                 483          BCT      R06,TOP_O_LOOP         Branch to the top
```

```
 000000E2 A766 FFE3              000000A8    484+         BRCT  R06,TOP_O_LOOP  (BCT)                                  01-00000216
                                             485 * ---------------------------------------------------------------------
                                             486 *
                                             487 *   Setup the parameter list to CEEMOUT. Do not omit the feedback code.
                                             488 *
 000000E6 4120 B128              00000128    489          LA       R02,DONE_MSG
 000000EA 4130 B284              00000284    490          LA       R03,DEST
 000000EE 4140 D0B4              000000B4    491          LA       R04,FBCODE
 000000F2 9024 D080              00000080    492          STM      R02,R04,PLIST
                                             493 *
                                             494 *   Point to the parameter list and call CEEMOUT
                                             495 *
 000000F6 4110 D080              00000080    496          LA       R01,PLIST
 000000FA 58F0 B11C              0000011C    497          L        R15,MOUT
 000000FE 05EF                               498          BALR     R14,R15
                                             499 *
                                             500 *   Terminate the CEL environment and return to the caller
                                             501 *
                                             502          CEETERM  RC=0
 00000100 4110 B10C              0000010C    503+         LA   1,CEET0010               Get address of termination list 01-CEETERM
 00000104 58F0 B300              00000300    504+         L    15,=V(CEETREC)           Get address of termination rtn  01-CEETERM
 00000108 05EF                               505+         BALR 14,15                    Call termination routine.       01-CEETERM
 0000010A 0000
 0000010C 00000114                           506+CEET0010 DC   A(*+8)              Parm 1                              01-CEETERM
 00000110 80000118                           507+         DC   A(*+8+X'80000000')  Parm 2                              01-CEETERM
1                                                                                                      Page    6
   Active Usings: CEEIVP,R11  WORKAREA,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
000000114 00000000                           508+         DC   A(0)                Enc_Modifier                        01-CEETERM
 00000118 00000000                           509+         DC   A(0)                Return code.                        01-CEETERM
 00000308                00000308 00000008   510+CEEMAIN  CSECT                                                      01-CEETERM
                                             511+CEEMAIN  RMODE ANY                                                    01-CEETERM
                                             512+CEEMAIN  AMODE ANY                                                    01-CEETERM
 00000308 00000000                           513+         DC    A(CEEIVP)                                    @04A  01-CEETERM
 0000030C 00000000                           514+         DC    F'0'                                                 01-CEETERM
 0000011C                00000000 00000304   515+CEEIVP     CSECT                                                    01-CEETERM
                                             516 * ===================================================================
                                             517 *              CONSTANTS
                                             518 * ===================================================================
 0000011C 00000000                           519 MOUT     DC     V(CEEMOUT)        The CEL Message service
 00000120 00000000                           520 LOCT     DC     V(CEELOCT)        The CEL Local date/time
 00000124 00000000                           521 DATM     DC     V(CEEDATM)        The CEL date formatter
                                             522 *
 00000128                                    523 DONE_MSG DS     0F
 00000128 0011                               524          DC     AL2(DONE_END-DONE_ST)
 0000012A D799968799819440                   525 DONE_ST  DC     C'Program Complete.'
                         0000013B            526 DONE_END EQU    *
                                             527 *
                         00000004            528 PATTERNS EQU    4                 The number of patterns here
                         00000052            529 PAT_SIZE EQU    82                THE SIZE OF EACH PATTERN
```

```
 0000013B 00
 0000013C 0050E3968481A840                  530 PATTERN1 DC     H'80',CL80'Today is Wwwwwwwwwz, ZD Mmmmmmmmz YYYY.'
 0000018E 0050E3968481A840                  531 PATTERN2 DC     H'80',CL80'Today is WWWWWWWWWZ, MMMMMMMMZ ZD, YYYY.'
 000001E0 0050E3968481A840                  532 PATTERN3 DC     H'80',CL80'Today is Wwwwwwwwwz, MM/DD/YY HH:MI:SS.99'
 00000232 0050E3968481A840                  533 PATTERN4 DC     H'80',CL80'Today is day DDD of YYYY'
                                            534 *
 00000284 00000002                          535 DEST     DC     F'2'              The destination is the MSGFILE
                                            536 *
                                            537 MAINPPA  CEEPPA                   Constants descibing the code block
                                            538+*/****************************************************************/
                                            539+*/*                                                              */
                                            540+*/* Licensed Materials - Property of IBM                         */
                                            541+*/*                                                              */
                                            542+*/* 5694-A01 5688-198                                            */
                                            543+*/*                                                              */
                                            544+*/* Copyright IBM Corp. 1991, 2009                               */
                                            545+*/*                                                              */
                                            546+*/* Status = HLE7760                                             */
                                            547+*/*                                                              */
                                            548+*/****************************************************************/
                                            549+*
                                            550+*******************************************************************
                                            551+*        P R O G R A M  P R O L O G  A R E A 1   ( P P A 1)         *
                                            552+*******************************************************************
                                            553+*
 00000288                                   554+PPA10011    DS    0F                                           01-CEEPPA
 00000288                                   555+MAINPPA  DS    0F                                           01-CEEPPA
 00000288 1E                                556+         DC    AL1(PPANL0011-*) Offset to the entry name length 01-CEEPPA
 00000289 CE                                557+         DC    X'CE'            LE/370  Indicator.          01-CEEPPA
 0000028A A0                                558+         DC    B'10100000'                    . PPA flags   01-CEEPPA
                                            559+*                     Bit 0   0 = Internal Procedure
                                            560+*                             1 = External Procedure
                                            561+*                     Bit 1   0 = Primary Entry Point
1                                                                                Page    7
   Active Usings: CEEIVP,R11  WORKAREA,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
0                                           562+*                             1 = Secondary Entry Point
                                            563+*                     Bit 2   0 = Block doesn't have a DSA
                                            564+*                             1 = Block has a DSA
                                            565+*                     Bit 3   0 = compiled object
                                            566+*                             1 = library object
                                            567+*                     Bit 4   0 = sampling interrupts to library
                                            568+*                             1 = sampling interrupts to code
                                            569+*                     Bit 5   0 = not an exit DSA
                                            570+*                             1 = Exit DSA
                                            571+*                     Bit 6   0 = own exception model
                                            572+*                             1 = inherited (callers) exception model
                                            573+*                     Bit 7       Reserved
 0000028B 00                                574+         DC    X'00'            Member flags                 01-CEEPPA
 0000028C 000002D4                          575+         DC    A(PPA20011)      Addr of Compile Unit Block (PPA2) 01-CEEPPA
```

```
 00000290 00000000                      576+         DC    A(0)             Blk Debug Info                          01-CEEPPA
 00000294 00000000                      577+         DC    A(0)             Data Descriptors for this entry point   01-CEEPPA
 00000298 00000000                      578+         DC    A(0)             GPR save bit mask      X'10'      @D2A  01-CEEPPA
 0000029C 00000000                      579+         DC    A(0)             Member PPA1 word       X'14'      @D2A  01-CEEPPA
 000002A0 00000000                      580+         DC    A(0)                                    Offset X'18'      @D2A  01-CEEPPA
                                        581+* Language Environment flags (16bits)                  Offset X'1C'      @D2A
 000002A4 00                            582+         DC    B'00000000'                                               @D2A  01-CEEPPA
                                        583+*                Bit 0-1 00 = Old code entry performs full save  @D2A
                                        584+*                        01 = Old code performs partial save     @D2A
                                        585+*                        10 = Old code performs partial save+R12 @D2A
                                        586+*                Bit 2   0  = Allow asynchronous exceptions      @D2A
                                        587+*                        1  = Defer asynchronous exceptions      @D2A
                                        588+*                Bit 3   0  = Word 0 of SA not initialized       @D2A
                                        589+*                        1  = Word 0 of SA initialized           @D2A
                                        590+*                Bit 4   0  = Code is nonexternal glue           @D2A
                                        591+*                        1  = Code is external glue              @D2A
                                        592+*                Bit 5   0  = Real return addr saved in SA at    @D2A
                                        593+*                             offset '0C'X                       @D2A
                                        594+*                        1  = Real return addr saved in linkage  @D2A
                                        595+*                             area                               @D2A
                                        596+*                Bit 6   0  = Storage argument area start        @D2A
                                        597+*                             indeterminate                      @D2A
                                        598+*                        1  = Storage argument area start valid  @D2A
                                        599+*                Bit 7   0  = R12 must contain CAA address upon  @D2A
                                        600+*                             old code entry                     @D2A
                                        601+*                        1  = R12 not defined upon old code entry@D2A
 000002A5 00                            602+         DC    B'00000000'                                               @D2A  01-CEEPPA
                                        603+*                Bit 8   0  = Not vararg routine                 @D2A
                                        604+*                        1  = Vararg routine                     @D2A
                                        605+*                Bit 9   0  = Asynchronous interrupts unsupported@D2A
                                        606+*                        1  = Asynchronous interrupts supported  @D2A
                                        607+*                Bit 10  0  = No module service level            @D2A
                                        608+*                        1  = Module service level applied       @D2A
                                        609+*                Bit 11-15  = Reserved                           @D2A
 000002A6                               610+         DS    0H                                                        01-CEEPPA
 000002A6 0006                          611+PPANL0011 DC   AL2(6)        .  Length of Entry Point Name              01-CEEPPA
 000002A8 C3C5C5C9E5D7                  612+         DC    CL6'CEEIVP'   .  Entry Point Name                       01-CEEPPA
 000002B0                               613+CEEINPL  DS    0D                                                        01-CEEPPA
 000002B0 000002E4                      614+         DC    A(PPA2M0011)                                            01-CEEPPA
 000002B4 00000008                      615+         DC    A(CEEINPLSTST-CEEINPL)                                  01-CEEPPA
 000002B8                               616+CEEINPLSTST DS 0F                                                      01-CEEPPA
1                                                                                                    Page    8
   Active Usings: CEEIVP,R11  WORKAREA,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
0000002B8 00                            617+         DC    X'00'            Control Level                           @01A  01-CEEPPA
 000002B9 00                            618+         DC    X'00'            ENCLAVE=NO                              @01A  01-CEEPPA
 000002BA 00                            619+         DC    X'00'                                                    @01A  01-CEEPPA
 000002BB 07                            620+         DC    X'07'            Number of items.                        @01C  01-CEEPPA
 000002BC 000002E4                      621+         DC    A(PPA2M0011)    . A of A(first entry point in comp unit)  01-CEEPPA
 000002C0 00000000                      622+         DC    V(CEESTART)     . A(Address of CEESTART)                  01-CEEPPA
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000002C4 00000000                      623+         DC    V(CEEBETBL)                                                  01-CEEPPA
000002C8 0000000F                      624+         DC    A(15)          . Memeber id                                  01-CEEPPA
000002CC 00000000                      625+         DC    A(0)                                                         01-CEEPPA
000002D0 00020000                      626+         DC    XL4'00020000'          . EXECOPS(ON), PLIST                  01-CEEPPA
000002D4                               627+         DS    0H                                                           01-CEEPPA
                                       628+*
                                       629+*************************************************************************
                                       630+*        P R O G R A M  P R O L O G  A R E A 2   ( P P A 2)          *
                                       631+*************************************************************************
                                       632+*
                                       633+         EXTRN CEESTART                                                     01-CEEPPA
000002D4                               634+PPA20011    DS    0F                                                       01-CEEPPA
000002D4 0F                            635+         DC    AL1(15)          Member ID                                 01-CEEPPA
000002D5 00                            636+         DC    AL1(0)           Sub ID                                    01-CEEPPA
000002D6 00                            637+         DC    AL1(0)           Member defined                            01-CEEPPA
000002D7 01                            638+         DC    AL1(1)           Level of PPAx control blocks              01-CEEPPA
000002D8 00000000                      639+PPA2S0011   DC    A(CEESTART)      A(CEESTART for this load module)         01-CEEPPA
000002DC 00000000                      640+         DC    A(0)             A(Compile Debug Information (CDI) )       01-CEEPPA
000002E0 00000014                      641+         DC    A(CEETIMES-PPA20011)   A(Offset to time stamp)              01-CEEPPA
000002E4 00000000                      642+PPA2M0011   DC    A(CEEIVP)      . A(first entry point in comp. unit)      01-CEEPPA
                                       643+*
                                       644+*************************************************************************
                                       645+*                T I M E    S T A M P                                 *
                                       646+*************************************************************************
                                       647+*
                                       648+*        Time Stamp
                                       649+*,Time Stamp = 2013/08/10 20:09:00                                        01-CEEPPA
                                       650+*,Version 1 Release 1 Modification 0                                      01-CEEPPA
000002E8                               651+CEETIMES DS    0F                                                         01-CEEPPA
000002E8 F2F0F1F3                      652+         DC    CL4'2013'          Year                                    01-CEEPPA
000002EC F0F8                          653+         DC    CL2'08'            Month                                   01-CEEPPA
000002EE F1F0                          654+         DC    CL2'10'            Day                                     01-CEEPPA
000002F0 F2F0                          655+         DC    CL2'20'            Hours                                   01-CEEPPA
000002F2 F0F9                          656+         DC    CL2'09'            Minutes                                 01-CEEPPA
000002F4 F0F0                          657+         DC    CL2'00'            Seconds                                 01-CEEPPA
000002F6 F140                          658+         DC    CL2'1'             Version                                 01-CEEPPA
000002F8 F140                          659+         DC    CL2'1'             Release                                 01-CEEPPA
000002FA F040                          660+         DC    CL2'0'             Modification                            01-CEEPPA
                                       661 * ===================================================================
                                       662 *        The Workarea and DSA
                                       663 * ===================================================================
00000000               00000000 00000118 664 WORKAREA DSECT
00000000               00000000 00000080 665          ORG    *+CEEDSASZ       Leave space for the DSA fixed part
00000080                               666 PLIST    DS     0D
00000080                               667 PARM1    DS     A
00000084                               668 PARM2    DS     A
00000088                               669 PARM3    DS     A
0000008C                               670 PARM4    DS     A
00000090                               671 PARM5    DS     A
1                                                                                    Page    9
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   Active Usings: CEEIVP,R11  WORKAREA,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                       HLASM R6.0  2013/08/10 20.09
0                                              672 *
 00000094                                      673 LILIAN   DS     F                Lilian Output
 00000098                                      674 SECS     DS     D                Current local date/time in seconds
 000000A0                                      675 GREG     DS     CL17             Gregorian output in chars
 000000B4                                      676 FBCODE   DS     3F               Space for a 12 byte feedback code
                                               677 *
 000000C0                                      678 TODAY    DS     0D               Space for the CEEMOUT written
 000000C0                                      679 DATE_LEN DS     H                ... today's date
 000000C2                                      680 DATE_OUT DS     CL80
                                               681 *
 00000118                                      682          DS     0D
                      00000118                 683 WORKSIZE EQU    *-WORKAREA
                                               684          CEEDSA                  Mapping of the Dynamic Save Area
                                               685+*
                                               686+*************************************************************************
                                               687+*   D Y N A M I C   S T O R A G E   A R E A    ( D S A )            *
                                               688+*************************************************************************
                                               689+*
 00000000             00000000 00000080        690+CEEDSA   DSECT 0D         Default DSECT NAME for SECTYPE=ALL           01-CEEDSA
                                               691+*
 00000000                                      692+CEEDSAFLAGS DS XL2                DSA flags                          01-CEEDSA
                      00001000                 693+CEEDSALNGC EQU X'1000'              C library DSA                    01-CEEDSA
                      00000800                 694+CEEDSALNGP EQU X'0800'              PL/I library DSA                 01-CEEDSA
                      00000008                 695+CEEDSAEXIT EQU X'0008'              An Exit DSA                      01-CEEDSA
 00000002                                      696+CEEDSAMEMD DS  XL2                Member defined                     01-CEEDSA
 00000004                                      697+CEEDSABKC DS   A                  Addr of DSA of caller              01-CEEDSA
 00000008                                      698+CEEDSAFWC DS   A                  Addr of DSA of last called rtn     01-CEEDSA
 0000000C                                      699+CEEDSAR14 DS   F                  Save area for register 14          01-CEEDSA
 00000010                                      700+CEEDSAR15 DS   F                  Save area for register 15          01-CEEDSA
 00000014                                      701+CEEDSAR0 DS    F                  Save area for register 0           01-CEEDSA
 00000018                                      702+CEEDSAR1 DS    F                  Save area for register 1           01-CEEDSA
 0000001C                                      703+CEEDSAR2 DS    F                  Save area for register 2           01-CEEDSA
 00000020                                      704+CEEDSAR3 DS    F                  Save area for register 3           01-CEEDSA
 00000024                                      705+CEEDSAR4 DS    F                  Save area for register 4           01-CEEDSA
 00000028                                      706+CEEDSAR5 DS    F                  Save area for register 5           01-CEEDSA
 0000002C                                      707+CEEDSAR6 DS    F                  Save area for register 6           01-CEEDSA
 00000030                                      708+CEEDSAR7 DS    F                  Save area for register 7           01-CEEDSA
 00000034                                      709+CEEDSAR8 DS    F                  Save area for register 8           01-CEEDSA
 00000038                                      710+CEEDSAR9 DS    F                  Save area for register 9           01-CEEDSA
 0000003C                                      711+CEEDSAR10 DS   F                  Save area for register 10          01-CEEDSA
 00000040                                      712+CEEDSAR11 DS   F                  Save area for register 11          01-CEEDSA
 00000044                                      713+CEEDSAR12 DS   F                  Save area for register 12          01-CEEDSA
 00000048                                      714+CEEDSALWS DS   A                  Addr of PL/I Language Working Space 01-CEEDSA
 0000004C                                      715+CEEDSANAB DS   A                  Addr of next available byte        01-CEEDSA
 00000050                                      716+CEEDSAPNAB DS  A                  Addr of end-of-prolog NAB          01-CEEDSA
 00000054                                      717+           DS  4F                                                    01-CEEDSA
 00000064                                      718+CEEDSATRAN DS  0A                 HPL TxArea or                      01-CEEDSA
 00000064                                      719+CEEDSARENT DS  A                  Program reentry address-IPAT       01-CEEDSA
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 00000068                                720+CEEDSACILC DS  A                  C to Fortran ILC save area          01-CEEDSA
 0000006C                                721+CEEDSAMODE DS  A                  Return address of module that       01-CEEDSA
                                         722+*                                 caused the last mode switch
 00000070                                723+           DS  2F                                                     01-CEEDSA
 00000078                                724+CEEDSARMR  DS  A                  Addr of language specific           01-CEEDSA
                                         725+*                                 exception handler
                                         726+*
1                                                                                                  Page   10
   Active Usings: CEEIVP,R11  WORKAREA,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                    HLASM R6.0  2013/08/10 20.09
0000007C                                727+           DS  F                  Reserved                            01-CEEDSA
 00000080                                728+CEEDSAAUTO DS  0D                 Automatic storage starts here       01-CEEDSA
 00000080                                729+CEEDSAEND  DS  0D                 End of DSA                          01-CEEDSA
                     00000080            730+CEEDSASZ EQU   CEEDSAEND-CEEDSA  Size of DSA                         01-CEEDSA
                     00000000            731+CEEDSA_STDCEEDSA  EQU   X'0000'  flag values of standard CEE DSA     01-CEEDSA
                                         732+*
                                         733+*
                                         734+*
                                         735+*
                                         736+*********************************************************************
                                         737+*   X P L I N K   D Y N A M I C   S T O R A G E   A R E A           *
                                         738+*********************************************************************
                                         739+*
 00000000            00000000 00000840   740+CEEDSAHP DSECT 0D         Default DSECT NAME for SECTYPE=ALL          01-CEEDSA
                                         742+*********************************************************************
                                         743+*********************************************************************
                     00000004            744+LEPTRLEN EQU    4                                                  02-CEEDNUT
                                         745+*
 00000000                                746+CEEDSAHP_BIAS  DS XL2048            BIAS -- DO NOT USE              01-CEEDSA
                     00000800            747+CEEDSAHPBIASSZ EQU *-CEEDSAHP_BIAS  Size of Down Stack Bias         01-CEEDSA
 00000800                                748+CEEDSAHP_FIXED DS 0X                Start of fixed part             01-CEEDSA
 00000800                                749+CEEDSAHP4TO15 DS 12F                Save area for regs 4-15         01-CEEDSA
 00000830            00000830 00000800   750+           ORG CEEDSAHP_FIXED                                       01-CEEDSA
 00000800                                751+CEEDSAHP4TO7  DS 4F                 Save area for regs 4-7          01-CEEDSA
 00000810            00000810 00000800   752+           ORG CEEDSAHP_FIXED                                       01-CEEDSA
 00000800                                753+CEEDSAHPR4  DS F                    Save area for register 4        01-CEEDSA
 00000804                                754+CEEDSAHPR5  DS F                    Save area for register 5        01-CEEDSA
 00000808                                755+CEEDSAHPR6  DS F                    Save area for register 6        01-CEEDSA
 0000080C                                756+CEEDSAHPR7  DS F                    Save area for register 7        01-CEEDSA
 00000810                                757+CEEDSAHP8TO15 DS 8F                 Save area for regs 8-15         01-CEEDSA
 00000830            00000830 00000810   758+           ORG CEEDSAHP8TO15                                        01-CEEDSA
 00000810                                759+CEEDSAHPR8  DS F                    Save area for register 8        01-CEEDSA
 00000814                                760+CEEDSAHPR9  DS F                    Save area for register 9        01-CEEDSA
 00000818                                761+CEEDSAHPR10 DS F                    Save area for register 10       01-CEEDSA
 0000081C                                762+CEEDSAHPR11 DS F                    Save area for register 11       01-CEEDSA
 00000820                                763+CEEDSAHPR12 DS F                    Save area for register 12       01-CEEDSA
 00000824                                764+CEEDSAHPR13 DS F                    Save area for register 13       01-CEEDSA
 00000828                                765+CEEDSAHPR14 DS F                    Save area for register 14       01-CEEDSA
 0000082C                                766+CEEDSAHPR15 DS F                    Save area for register 15       01-CEEDSA
 00000830                                767+           DS F                    Reserved for LE use             01-CEEDSA
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 00000834                                768+CEEDSAHPMBRUSE DS F                 Reserved for LE Member use         01-CEEDSA
 00000838                                769+CEEDSAHPTRAN DS A                   Addr of transition area            01-CEEDSA
 0000083C                                770+CEEDSAHP_ARG_PRE DS 0A              Argument prefix area               01-CEEDSA
 0000083C                                771+CEEDSAHPRENT     DS A               or Program reentry addr-IPAT       01-CEEDSA
                      00000040           772+CEEDSAHPSZ  EQU *-CEEDSAHP_FIXED    Size of fixed DSA                  01-CEEDSA
 00000840                                773+CEEDSAHP_ARGLIST DS 0X              Start of Vary length arg list      01-CEEDSA
                                         774+*
                                         775+*
 00000080             00000000 00000080  776+CEEDSA   DSECT  ,                                                    01-CEEDSA
                                         777          CEECAA                  Mapping of the Common Anchor Area
                                         778+*********************************************************************
                                         779+*  C O M M O N   A N C H O R   A R E A   ( C A A )                  *
                                         780+*********************************************************************
                                         781+*
                                         783+*********************************************************************
1                                                                                          Page   11
   Active Usings: CEEIVP,R11  WORKAREA,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                HLASM R6.0  2013/08/10 20.09
0                                        784+*********************************************************************
                                         785+*
 00000000             00000000 00000400  786+CEECAA   DSECT    ,                CAA mapping                        01-CEECAA
 00000000                                787+CEECAAFLAG0 DS    X                 CAA Flags                          01-CEECAA
                      00000002           788+CEECAAXHDL  EQU   X'02'              Bypass exception handling          01-CEECAA
                                         789+*           EQU   X'FD'              Reserved
 00000001                                790+            DS    X                 Reserved                           01-CEECAA
                      00000020           791+CEECAADBGINIT EQU X'20'             Debugger is initialized            01-CEECAA
 00000002                                792+CEECAALANGP DS    X                 PL/I compatibility flags           01-CEECAA
                      00000008           793+CEECAATHFN  EQU   X'08'              If set, NO PL/I FINISH             01-CEECAA
                                         794+*                                  on-unit active
                                         795+*           EQU   X'F7'              Reserved
 00000003                                796+            DS    XL5               Reserved                           01-CEECAA
 00000008                                797+CEECAABOS   DS    A                 Start of current storage segment   01-CEECAA
 0000000C                                798+CEECAAEOS   DS    A                 End of current storage segment     01-CEECAA
 00000010                                799+            DS    XL52              Reserved                           01-CEECAA
 00000044                                800+CEECAATORC  DS    F                 Thread level return code           01-CEECAA
 00000048                                801+            DS    XL44              Reserved                @CM0419C   01-CEECAA
 00000074                                802+CEECAATOVF  DS    A                 Stack overflow routine  @CM0419A   01-CEECAA
 00000078                                803+            DS    XL168             Reserved                @CM0419A   01-CEECAA
 00000120                                804+CEECAAATTN  DS    A                 Addr of LE/370 attention handler   01-CEECAA
                                         805+*
 00000124                                806+            DS    XL56              Reserved                           01-CEECAA
 0000015C                                807+CEECAAHLLEXIT DS  A                 Set by CEEBINT for user hook exit  01-CEECAA
 00000160                                808+            DS    XL56              Reserved                           01-CEECAA
 00000198                                809+CEECAAHOOK  DS    XL12              Code to pass control               01-CEECAA
 000001A4                                810+CEECAADIMA  DS    A                 A(debugger entry)                  01-CEECAA
                                         811+*
 000001A8                                812+CEECAAHOOKS DS    0CL68             Hook control words for debugger@G3C 01-CEECAA
 000001A8                                813+CEECAAALLOC DS    XL4               ALLOCATE descr. built              01-CEECAA
 000001AC                                814+CEECAASTATE DS    XL4               New statement begins               01-CEECAA
 000001B0                                815+CEECAAENTRY DS    XL4               Block entry                        01-CEECAA
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 000001B4                                816+CEECAAEXIT  DS    XL4             Block exit                            01-CEECAA
 000001B8                                817+CEECAAMEXIT DS    XL4             Multiple block exit                   01-CEECAA
 000001BC                                818+CEECAAPATHS DS    0CL32           PATH hooks                            01-CEECAA
 000001BC                                819+CEECAALABEL DS    XL4             At a label constant                   01-CEECAA
 000001C0                                820+CEECAABCALL DS    XL4             Before CALL                           01-CEECAA
 000001C4                                821+CEECAAACALL DS    XL4             After CALL                            01-CEECAA
 000001C8                                822+CEECAADO    DS    XL4             DO block starting                     01-CEECAA
 000001CC                                823+CEECAAIFTRUE  DS   XL4             True part of IF                       01-CEECAA
 000001D0                                824+CEECAAIFFALSE DS   XL4             False part of IF                      01-CEECAA
 000001D4                                825+CEECAAWHEN    DS   XL4             WHEN group starting                   01-CEECAA
 000001D8                                826+CEECAAOTHER   DS   XL4             OTHERWISE group                       01-CEECAA
 000001DC                                827+CEECAACGOTO   DS   XL4             GOTO hook for C                       01-CEECAA
 000001E0                                828+CEECAARSVDH1  DS   XL4             Reserved hook                         01-CEECAA
 000001E4                                829+CEECAARSVDH2  DS   XL4             Reserved hook                         01-CEECAA
 000001E8                                830+CEECAAMULTEVT DS   XL4             Multiple Event Hook           @G3C 01-CEECAA
                                         831+*
 000001EC                                832+CEECAAMEVMASK DS   XL4             Multiple Event Hook Mask      @G3A 01-CEECAA
 000001F0                                833+CEECAACGENE DS    A               Reserved                              01-CEECAA
 000001F4                                834+CEECAACRENT DS    A               C/370 writable static                 01-CEECAA
 000001F8                                835+CEECAACFLTINIT DS XL8             Used to covert fixed to float         01-CEECAA
 00000200                                836+CEECAACPRMS DS    A               Parms passed to IBMLIIA               01-CEECAA
 00000204                                837+CEECAAC_RTL         DS   0F       Combination of 24 unique C/370 @DJC 01-CEECAA
                                         838+*                                 trc types & 8 common trc types
1                                                                                                 Page   12
   Active Usings: CEEIVP,R11  WORKAREA,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                      HLASM R6.0  2013/08/10 20.09
000000204                                    839+CEECAAC_RTL_1       DS    X         C/370 RTL unique trace options @DJA 01-CEECAA
                                             840+*                                                                @DJA
 00000205                                    841+CEECAAC_RTL_2       DS    X         C/370 RTL unique trace options @DJA 01-CEECAA
                                             842+*                                                                @DJA
 00000206                                    843+CEECAAC_RTL_3       DS    X         C/370 RTL unique trace options @DJA 01-CEECAA
                                             844+*                   EQU   X'80'     Reserved                       @DJA
                      00000040               845+CEECAA_SIGNALS_L    EQU   X'40'     Low-level signals              @DJA 01-CEECAA
                      00000020               846+CEECAA_LOW_IO       EQU   X'20'     Low-level I/O                  @DJA 01-CEECAA
                      00000010               847+CEECAA_INITTERM_L   EQU   X'10'     Low-level init/term            @DJA 01-CEECAA
                                             848+*                   EQU   X'08'     Reserved                       @DJA
                      00000004               849+CEECAA_SIGNALS_H    EQU   X'04'     High-level signals             @DJA 01-CEECAA
                      00000002               850+CEECAA_HIGH_IO      EQU   X'02'     High-level I/O                 @DJA 01-CEECAA
                      00000001               851+CEECAA_INITTERM_H   EQU   X'01'     High-level init/term           @DJA 01-CEECAA
                                             852+*                                                                @DJA
 00000207                                    853+CEECAAC_COMTRACE    DS    X         Common RTL trace options       @DJA 01-CEECAA
                                             854+*                   EQU   X'80'     Reserved                       @DJA
                                             855+*                   EQU   X'40'     Reserved                       @DJA
                      00000020               856+CEECAA_RTLXPLI      EQU   X'20'     RTL XPLINK trace               @DJA 01-CEECAA
                      00000010               857+CEECAA_RTLCICS      EQU   X'10'     RTL CICS   trace               @DJA 01-CEECAA
                      00000008               858+CEECAA_RTLALLOC     EQU   X'08'     RTL Alloc  trace               @DJA 01-CEECAA
                      00000004               859+CEECAA_RTLCOUNT     EQU   X'04'     RTL Function counting          @DJA 01-CEECAA
                      00000002               860+CEECAA_RTLLOCKS     EQU   X'02'     RTL or user locking            @DJA 01-CEECAA
                      00000001               861+CEECAA_RTLFUNC      EQU   X'01'     RTL function entry/exit        @DJA 01-CEECAA
                                             862+*
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 00000208                                      863+CEECAACTHD  DS    A                                                01-CEECAA
 0000020C                                      864+CEECAACURRFECB DS A                                                01-CEECAA
 00000210                                      865+CEECAAEDCV  DS    A                 C/370 vector table             01-CEECAA
 00000214                                      866+CEECAACPCB  DS    A                                                01-CEECAA
 00000218                                      867+CEECAACEDB  DS    A                 C/370 CEDB                     01-CEECAA
 0000021C                                      868+            DS    XL3                                              01-CEECAA
 0000021F                                      869+CEECAASPCFLAG3 DS X                                                01-CEECAA
 00000220                                      870+CEECAACIO   DS    A                 Address oc cio                 01-CEECAA
 00000224                                      871+CEECAAFDSETFD DS  F                 Used by FD_* macros            01-CEECAA
 00000228                                      872+CEECAAFCBMUTEXOK DS XL2                                            01-CEECAA
 0000022A                                      873+            DS    XL2                                              01-CEECAA
 0000022C                                      874+CEECAATC16  DS    F                                                01-CEECAA
 00000230                                      875+CEECAATC17  DS    F                                                01-CEECAA
 00000234                                      876+CEECAAEDCOV DS    A                 C/370 Open Libvec              01-CEECAA
 00000238                                      877+CEECAACTOFSV DS   F                                                01-CEECAA
 0000023C                                      878+CEECAATRTSPACE DS A                 C/370 Open Libvec              01-CEECAA
 00000240                                      879+            DS    XL24                                             01-CEECAA
 00000258                                      880+CEECAA_TCASRV DS  0CL36             TCA Service Rtn Vector         01-CEECAA
 00000258                                      881+CEECAA_TCASRV_USERWORD  DS A                                       01-CEECAA
 0000025C                                      882+CEECAA_TCASRV_WORKAREA  DS A                                       01-CEECAA
 00000260                                      883+CEECAA_TCASRV_GETMAIN   DS A                                       01-CEECAA
 00000264                                      884+CEECAA_TCASRV_FREEMAIN  DS A                                       01-CEECAA
 00000268                                      885+CEECAA_TCASRV_LOAD      DS A                                       01-CEECAA
 0000026C                                      886+CEECAA_TCASRV_DELETE    DS A                                       01-CEECAA
 00000270                                      887+CEECAA_TCASRV_EXCEPTION DS A                                       01-CEECAA
 00000274                                      888+CEECAA_TCASRV_ATTENTION DS A                                       01-CEECAA
 00000278                                      889+CEECAA_TCASRV_MESSAGE   DS A                                       01-CEECAA
 0000027C                                      890+            DS    XL4               Reserved                       01-CEECAA
 00000280                                      891+CEECAALWS   DS    A                 Addr of PL/I Language Working Space 01-CEECAA
 00000284                                      892+CEECAASAVR  DS    A                 Register save       @CM0419A   01-CEECAA
 00000288                                      893+            DS    XL36              Reserved                  @P6C 01-CEECAA
1                                                                                                           Page   13
   Active Usings: CEEIVP,R11  WORKAREA,R13
0D-Loc     Object Code       Addr1     Addr2    Stmt  Source Statement                    HLASM R6.0  2013/08/10 20.09
0                                              894+*
 000002AC                                      895+CEECAASYSTM DS    X                 Underlying Operating System@MF0072A 01-CEECAA
                        00000000               896+CEECAASYUND EQU   X'00'               undefined                @MF0072A 01-CEECAA
                        00000001               897+CEECAASYUNS EQU   X'01'               unsupported              @MF0072A 01-CEECAA
                        00000002               898+CEECAASYVM  EQU   X'02'               VM                       @MF0072A 01-CEECAA
                        00000003               899+CEECAASYMVS EQU   X'03'               MVS                      @MF0072A 01-CEECAA
 000002AD                                      900+CEECAAHRDWR DS    X                 Underlying Hardware        @MF0072A 01-CEECAA
                        00000000               901+CEECAAHWUND EQU   X'00'               undefined                @MF0072A 01-CEECAA
                        00000001               902+CEECAAHWUNS EQU   X'01'               unsupported              @MF0072A 01-CEECAA
                        00000002               903+CEECAAHW370 EQU   X'02'               System / 370 non-XA      @MF0072A 01-CEECAA
                        00000003               904+CEECAAHWXA  EQU   X'03'               System / 370 XA          @MF0072A 01-CEECAA
                        00000004               905+CEECAAHWESA EQU   X'04'               System / 370 ESA         @MF0072A 01-CEECAA
 000002AE                                      906+CEECAASBSYS DS    X                 Underlying Subsystem       @MF0072A 01-CEECAA
                        00000000               907+CEECAASSUND EQU   X'00'               undefined                @MF0072A 01-CEECAA
                        00000001               908+CEECAASSUNS EQU   X'01'               unsupported              @MF0072A 01-CEECAA
                        00000002               909+CEECAASSNON EQU   X'02'               no subsystem             @MF0072A 01-CEECAA
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                    00000003            910+CEECAASSTSO EQU   X'03'              TSO                      @MF0072A 01-CEECAA
                    00000005            911+CEECAASSCIC EQU   X'05'              CICS                     @MF0072A 01-CEECAA
 000002AF                               912+CEECAAFLAG2 DS    X                                           @MF0072A 01-CEECAA
                    00000080            913+CEECAABIMODAL EQU X'80'            Bimodal addressing         @MF0072A 01-CEECAA
                    00000040            914+CEECAA_VECTOR EQU X'40'            vector hardware available  @MF0072A 01-CEECAA
                    00000020            915+CEECAATIP     EQU X'20'            Thread termination in progress      01-CEECAA
                    00000010            916+CEECAA_THREAD_INITIAL EQU X'10'    if on, indicates this is the IPT    01-CEECAA
                    00000008            917+CEECAA_TRACE_ACTIVE   EQU X'08'    If on, library trace is active      01-CEECAA
                                        918+*                                   (TRACE runtime option was set)
                    00000004            919+CEECAA_ALTSTK_ACTIVE  EQU X'04'    If on, alt stack active    @KCG0034 01-CEECAA
                    00000002            920+CEECAA_ENQ_WAIT_INTERRUPTABLE EQU X'02' PL/I doing Exclusive   KN80230  01-CEECAA
                                        921+*                                       file in Multitasking   KN80230
                    00000001            922+CEECAA_USRSTK_ACTIVE  EQU X'01'    If on, context switching user stack 01-CEECAA
                                        923+*                                       is active              PQ04250
                                        924+*
 000002B0                               925+CEECAALEVEL DS    X                LE/370 level identifier             01-CEECAA
                    00000019            926+CEL_LEVEL_IDENTIFIER EQU X'19'                                    @DUC 01-CEECAA
 000002B1                               927+CEECAA_PM   DS    X                PROGRAM MASK               @NX0166C 01-CEECAA
 000002B2                               928+CEECAA_INVAR DS   XL2              At same offset in 31 & 64 mode @G3C 01-CEECAA
 000002B4                               929+CEECAAGETLS DS    A                ADDR OF LE/370 LIBRARY STACK MGR    01-CEECAA
 000002B8                               930+CEECAACELV  DS    A                Addr of LE/370 LIBVEC               01-CEECAA
 000002BC                               931+CEECAAGETS  DS    A                Addr of LE/370 get stack stg rtn    01-CEECAA
 000002C0                               932+CEECAALBOS  DS    A                Start of library stack stg seg      01-CEECAA
 000002C4                               933+CEECAALEOS  DS    A                End of library stack stg seg        01-CEECAA
 000002C8                               934+CEECAALNAB  DS    A                Next available byte of lib stg      01-CEECAA
 000002CC                               935+CEECAADMC   DS    A                Addr of ESPIE Devil-May-Care rtn    01-CEECAA
 000002D0                               936+CEECAAABCODE DS   0F               Most recent ABEND completion CDE    01-CEECAA
 000002D0                               937+CEECAACD    DS    XL4              Most recent CAASHAB abend code      01-CEECAA
 000002D4                               938+CEECAARSNCODE DS  0F               Most recent ABEDN reason Code       01-CEECAA
 000002D4                               939+CEECAARS    DS    XL4              Most recent CAASHAB reason code     01-CEECAA
 000002D8                               940+CEECAAERR   DS    A                Addr of the current CIB             01-CEECAA
 000002DC                               941+CEECAAGETSX DS    A                Addr of LE/370 stack stg extender   01-CEECAA
 000002E0                               942+CEECAADDSA  DS    A                Addr of the dummy DSA               01-CEECAA
 000002E4                               943+CEECAASECTSIZ DS  F                Vector Section Size                 01-CEECAA
 000002E8                               944+CEECAAPARTSUM DS  F                Vector Partial Sum Number           01-CEECAA
 000002EC                               945+CEECAASSEXPNT DS  F                Log of Vector Section Size          01-CEECAA
 000002F0                               946+CEECAAEDB   DS    A                address of the EDB                  01-CEECAA
 000002F4                               947+CEECAAPCB   DS    A                address of the PCB                  01-CEECAA
                                        948+* ------------------------------------------------------------------------
1                                                                                                  Page   14
   Active Usings: CEEIVP,R11  WORKAREA,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
0                                      949+* - THE FOLLOWING TWO FIELDS ARE USED FOR VALIDATION OF THE CAA.      -
                                       950+* ------------------------------------------------------------------------
 000002F8                              951+CEECAAEYEPTR DS   A                addr of CAA eyecatcher              01-CEECAA
 000002FC                              952+CEECAAPTR   DS    A                addr of this CAA                    01-CEECAA
 00000300                              953+CEECAAGETS1 DS    A                DSA alloc - R13 not DSA addr        01-CEECAA
 00000304                              954+CEECAASHAB  DS    A                ABEND shunt routine address         01-CEECAA
 00000308                              955+CEECAAPRGCK DS    A                pgm interrupt code for CAADMC       01-CEECAA
 0000030C                              956+CEECAAFLAG1 DS    X                CAA Flag 1                          01-CEECAA
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                    00000080            957+CEECAASORT  EQU   B'10000000'       Call to DFSORT is active            01-CEECAA
                    00000040            958+CEECAA_USE_OLD_STK  EQU  B'01000000'  use old stack               @P5A  01-CEECAA
                    00000020            959+CEECAA_CICS_EXT_REG EQU  B'00100000'  CICS extended regs active   @DQA  01-CEECAA
                    00000010            960+CEECAASHAB_RECOVER_IN_ESTAE_MODE EQU B'00010000'                 @DYA  01-CEECAA
                                        961+*                                  LE ESTAE should set up to    @DYA
                                        962+*                                  retry at the CEECAASHAB      @DYA
                                        963+*                                  address in the same mode and @DYA
                                        964+*                                  key as when the LE ESTAE was @DYA
                                        965+*                                  established.                 @DYA
                    00000008            966+CEECAASHAB_IGNORED              EQU B'00001000'                  @DYA  01-CEECAA
                                        967+*                                  Set when CEECAASHAB ignored  @DYA
                    00000004            968+CEECAA_FETCH_RELES_IN_PROGRESS  EQU B'00000100'                  @E1A  01-CEECAA
 0000030D                               969+CEECAASHAB_KEY    DS  X            IPK result when abend shunt  @DYA  01-CEECAA
                                        970+*                                  routine is established       @DYA
 0000030E                               971+            DS    CL2              reserved                     @DYC  01-CEECAA
 00000310                               972+CEECAAURC   DS    F                Thread level return code.           01-CEECAA
 00000314                               973+CEECAARSRV1 DS    4A                                                   01-CEECAA
                                        974+* ------------------------------------------------------------------
                                        975+* - THE FOLLOWING FIELD CONTAINS THE PRE-INIT COMPATABILITY          -
                                        976+* - CONTROL BLOCK ADDRESS.                                          -
                                        977+* ------------------------------------------------------------------
 00000324                               978+CEECAAPICICB DS   A                Addr of pre-init compatability cb   01-CEECAA
 00000328                               979+CEECAARSRV2  DS   A                                                    01-CEECAA
                                        980+* ------------------------------------------------------------------
 0000032C                               981+CEECAAGOSMR  DS   H                Go Some More. used TRAV multiple    01-CEECAA
 0000032E                               982+             DS   H                skip.                               01-CEECAA
                                        983+* ------------------------------------------------------------------
 00000330                               984+CEECAALEOV   DS   A                Addr of LE/OpenMVS LIBVEC           01-CEECAA
 00000334                               985+CEECAA_SIGSCTR        DS  F        SIGSAFE Counter            @C54544  01-CEECAA
                                        986+*
 00000338                               987+CEECAA_SIGSFLG        DS  XL4      SIGSAFE Flags              @C54544  01-CEECAA
                                        988+*
                                        989+*                     First byte                          @P4A
                                        990+*
                    00000080            991+CEECAA_SIGPUTBACK     EQU X'80'    Signal Putback                      01-CEECAA
                    00000040            992+CEECAA_SA_RESTART     EQU X'40'    SA_Restart processing needed        01-CEECAA
                                        993+*                     EQU X'20'    <unused>
                    00000010            994+CEECAA_SIGSAFE        EQU X'10'    Indicates that synchronous          01-CEECAA
                                        995+*                                   signals are safe to be delivered
                                        996+*                                   regardless of where the interrupt
                                        997+*                                   occurred
                    00000008            998+CEECAA_CANCELSAFE     EQU X'08'    Indicates that synchronous @CM0565A 01-CEECAA
                                        999+*                                   cancels are safe to be    @CM0565A
                                       1000+*                                   delivered regardless of   @CM0565A
                                       1001+*                                   where the interrupt       @CM0565A
                                       1002+*                                   occurred                  @CM0565A
                    00000004           1003+CEECAA_SIGRESYNCH     EQU X'04'    One or more synchronous signals     01-CEECAA
1                                                                                                    Page   15
   Active Usings: CEEIVP,R11  WORKAREA,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                    HLASM R6.0  2013/08/10 20.09
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                                1004+*                                  may have been recently put back
                                1005+*                                  last time a signal was resolicited
                                1006+*                                  when returning to non-XPLINK
                                1007+*                                  user code
                00000002        1008+CEECAA_FRZ_UNSAFE     EQU X'02'    This thread is in an unsafe state   01-CEECAA
                                1009+*                                  to be frozen (set by members)
                00000001        1010+CEECAA_NOAPPREGS      EQU X'01'    User Application registers may      01-CEECAA
                                1011+*                                  be saved in a nonstandard place
                                1012+*                                                              @DFA
                                1013+*                     Second byte                              @P4A
                                1014+*
                00000080        1015+CEECAA_EINTR_RSOL     EQU   X'80'  Secondary signal resolicit          01-CEECAA
                                1016+*                                  in progress after EINTR
                                1017+*                                  from inner function         @P4A
                00000040        1018+CEECAA_EINTR_PUTB     EQU   X'40'  Secondary resolicited signal        01-CEECAA
                                1019+*                                  has been put back           @P4A
                00000020        1020+CEECAA_EINTR_REST     EQU   X'20'  User catcher returned after         01-CEECAA
                                1021+*                                  catching secondary
                                1022+*                                  resolicited signal with
                                1023+*                                  SA_RESTART in effect        @P4A
                00000010        1024+CEECAA_EINTR_SIGG     EQU   X'10'  "Stray" signal interrupted          01-CEECAA
                                1025+*                                  CEEOSIGG while secondary
                                1026+*                                  signal resolicitation
                                1027+*                                  was in progress             @P4A
                                1028+*                     EQU   X'08'  Reserved                    @P4A
                                1029+*                     EQU   X'04'  Reserved                    @P4A
                                1030+*                     EQU   X'02'  Reserved                    @P4A
                                1031+*                     EQU   X'01'  Reserved                    @P4A
                                1032+*
                                1033+*                     (16 unused bits)                         @P4C
                                1034+*
 0000033C                       1035+CEECAATHDID           DS  CL8      Posix thread id                     01-CEECAA
 00000344                       1036+CEECAA_DCRENT         DS  A        CRENT anchor for DCE                01-CEECAA
 00000348                       1037+CEECAA_DANCHOR        DS  A        DCE anchor per thread               01-CEECAA
 0000034C                       1038+CEECAA_CTOC           DS  A        TOC anchor for CRENT                01-CEECAA
 00000350                       1039+CEECAARCB             DS  A        A(RCB)                              01-CEECAA
 00000354                       1040+CEECAACICSRSN         DS  A        CICS reason code from member        01-CEECAA
                                1041+*                                  language
 00000358                       1042+CEECAAMEMBR           DS  A        Addr of thread-level member list    01-CEECAA
 0000035C                       1043+CEECAA_SIGNAL_STATUS  DS  A        Signal stat for terminating thd     01-CEECAA
 00000360                       1044+CEECAA_HCOM_REG7      DS 0A        Saved Reg7  from HCOM               01-CEECAA
 00000360                       1045+CEECAA_HCOM_REG14     DS  A        Saved Reg14 from HCOM   @CH0092A    01-CEECAA
 00000364                       1046+CEECAA_STACKFLOOR     DS  A        Lowest usable addr in HP stack      01-CEECAA
 00000368                       1047+CEECAAHPGETS          DS  A        HP stack extension rtn              01-CEECAA
 0000036C                       1048+CEECAAEDCHPXV         DS  A        C/C++ XPLINK libvec                 01-CEECAA
 00000370                       1049+CEECAAFOR1            DS  A        Reserved for FORTRAN                01-CEECAA
 00000374                       1050+CEECAAFOR2            DS  A        Reserved for FORTRAN                01-CEECAA
 00000378                       1051+CEECAATHREADHEAPID    DS  A        Thread heapid         @NX0093A      01-CEECAA
 0000037C                       1052+CEECAA_SYS_RTNCODE    DS  F        Sys (kernel) return code @CM1752    01-CEECAA
 00000380                       1053+CEECAA_SYS_RSNCODE    DS  F        Sys (kernel) reason code @CM1752    01-CEECAA
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 00000384                               1054+CEECAAGETFN           DS  A         Address of WSA swap routine         01-CEECAA
 00000388                               1055+CEECAA_LER4           DS  CL8       Reserved for expansion LE 1.4       01-CEECAA
                                        1056+*********************************************************************
                                        1057+*    LE V1R5M0 EXTERNAL CONTROL BLOCK SECTION                     *
                                        1058+*      - any external control block fields should be added        *
1                                                                                                  Page   16
   Active Usings: CEEIVP,R11  WORKAREA,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
0                                       1059+*        in this section.  Extra reserved space was added          *
                                        1060+*        with the intention of at end of project the excess        *
                                        1061+*        reserved space will be removed and all external fields    *
                                        1062+*        will be shifted.                                          *
                                        1063+*********************************************************************
 00000390                               1064+CEECAASIGNGPTR        DS  A         Pointer to 'signam' external        01-CEECAA
                                        1065+*                                   variable in a C application
 00000394                               1066+CEECAASIGNG           DS  F         value of sign of lgamma()           01-CEECAA
                                        1067+*                                    -1 - negative sign
                                        1068+*                                     0 - zero
                                        1069+*                                    +1 - positive sign
 00000398                               1070+CEECAA_FORDBG         DS  A         Ptr to AFHDBHIM -        @N80095A   01-CEECAA
                                        1071+*                                   FORTRAN hook interface   @N80095A
 0000039C                               1072+CEECAAAB_STATUS       DS  X         validity flags           KN80120    01-CEECAA
                   00000080             1073+CEECAAAB_GR0_VALID    EQU X'80'     CEECAAAB_GR0 is valid    KN80120    01-CEECAA
                   00000040             1074+CEECAAAB_ICD1_VALID   EQU X'40'     CEECAAAB_ICD1 is valid   KN80120    01-CEECAA
                   00000020             1075+CEECAAAB_ABCC_VALID   EQU X'20'     CEECAAAB_ABCC is valid   KN80120    01-CEECAA
                   00000010             1076+CEECAAAB_CRC_VALID    EQU X'10'     CEECAAAB_CRC is valid    KN80120    01-CEECAA
                   00000008             1077+CEECAAAB_GR15_VALID   EQU X'08'     CEECAAAB_GR15 is valid   KN80120    01-CEECAA
 0000039D                               1078+CEECAA_STACKDIRECTION DS  X         Stack Direction                     01-CEECAA
                   00000000             1079+CEECAASTACK_UP        EQU X'00'     Up                                  01-CEECAA
                   00000001             1080+CEECAASTACK_DOWN      EQU X'01'     Down (XPLINK)                       01-CEECAA
 0000039E                               1081+                      DS  XL2       RESERVED                 KN80120    01-CEECAA
 000003A0                               1082+CEECAAAB_GR0          DS  A         Reg 0                    KN80120    01-CEECAA
 000003A4                               1083+CEECAAAB_ICD1         DS  A         SDWAICD1                 KN80120    01-CEECAA
 000003A8                               1084+CEECAAAB_ABCC         DS  A         SDWAABCC                 KN80120    01-CEECAA
 000003AC                               1085+CEECAAAB_CRC          DS  A         SDWACRC                  KN80120    01-CEECAA
                   000002D4             1086+CEECAAAB_GR15         EQU CEECAARS  reg 15                   KN80120    01-CEECAA
 000003B0                               1087+CEECAAAGTS            DS  A         C compiler stk inc       KN00102    01-CEECAA
 000003B4                               1088+CEECAA_LER5N1         DS  CL4       reserved for expansion   KCG0088    01-CEECAA
 000003B8                               1089+CEECAAHERP            DS  A         A(CEEHERP)               KCG0061    01-CEECAA
 000003BC                               1090+CEECAAUSTKBOS         DS  A         Start of user stack seg  PQ04250    01-CEECAA
 000003C0                               1091+CEECAAUSTKEOS         DS  A         End of user stack seg    PQ04250    01-CEECAA
 000003C4                               1092+CEECAAUSERRTN@        DS  A         A(UserRtn) for pthread     @01A     01-CEECAA
 000003C8                               1093+CEECAAUDHOOK          DS  XL8       hook swapping xplink       @DBA     01-CEECAA
                                        1094+*                     DS  BL8       reserved                   @DBA
                                        1095+*CEECAAUDHOOKSW        DS  BL4       hook switch                @DBA
                                        1096+*                      DS  BL4       reserved                   @DBA
                                        1097+*                      DS  XL6       reserved                   @DBA
 000003D0                               1098+CEECAACEL_HPXV_B      DS  A         Address of XPLink compat   @DCC     01-CEECAA
                                        1099+*                                   vector for Base library    @DCA
 000003D4                               1100+CEECAACEL_HPXV_M      DS  A         Address of XPLink compat   @DCA     01-CEECAA
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                                        1101+*                                  vector for Math library   @DCA
 000003D8                               1102+CEECAACEL_HPXV_L      DS  A        Address of XPLink         @DCC     01-CEECAA
                                        1103+*                                  compat vector for         @DCA
                                        1104+*                                  Locale library            @DCA
 000003DC                               1105+CEECAACEL_HPXV_O      DS  A        Address of XPLink         @DDA     01-CEECAA
                                        1106+*                                  compat vector for         @DDA
                                        1107+*                                  Open library              @DDA
 000003E0                               1108+CEECAACEL4VEC3        DS  A        Address of Vec3 LibVec    @DHA     01-CEECAA
 000003E4                               1109+CEECAA_CEEDLLF          DS A       Addr of newest CEEDLLF.  Not   @P6M 01-CEECAA
                                        1110+*                                  same offset as in 64bit.       @P6M
 000003E8                               1111+CEECAA_SAVSTACK       DS  A        Saved Stack pointer used for   @DPA 01-CEECAA
                                        1112+*                                    OS_NOSTACK linkage           @DPA
 000003EC                               1113+                      DS  XL4      Reserved                       @DSC 01-CEECAA
1                                                                                                  Page   17
   Active Usings: CEEIVP,R11  WORKAREA,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                       HLASM R6.0  2013/08/10 20.09
0000003F0                              1114+CEECAA_USER_WORD      DS  F        CAA user word                  @DVC 01-CEECAA
 000003F4                               1115+CEECAA_SAVSTACK_ASYNC DS  A        Zero or address of 4-byte field@DPA 01-CEECAA
                                        1116+*                                  where the stack pointer can be @DPA
                                        1117+*                                  saved. When the stack pointer  @DPA
                                        1118+*                                  is saved here, asynchronous    @DPA
                                        1119+*                                  signals will be accepted.      @DPA
 000003F8                               1120+                      DS  A        Reserved for COBOL             @DZA 01-CEECAA
 000003FC                               1121+                      DS  XL4      Available                      @DZA 01-CEECAA
                         00000094       1122+CEECELVGTUN EQU  148               Offset to Get user nab service.     01-CEECAA
                                        1123 *
                         00000000       1124 R00      EQU   0,,,,GR32
                         00000001       1125 R01      EQU   1,,,,GR32
                         00000002       1126 R02      EQU   2,,,,GR32
                         00000003       1127 R03      EQU   3,,,,GR32
                         00000004       1128 R04      EQU   4,,,,GR32
                         00000005       1129 R05      EQU   5,,,,GR32
                         00000006       1130 R06      EQU   6,,,,GR32
                         00000007       1131 R07      EQU   7,,,,GR32
                         00000008       1132 R08      EQU   8,,,,GR32
                         00000009       1133 R09      EQU   9,,,,GR32
                         0000000A       1134 R10      EQU   10,,,,GR32
                         0000000B       1135 R11      EQU   11,,,,GR32
                         0000000C       1136 R12      EQU   12,,,,GR32
                         0000000D       1137 R13      EQU   13,,,,GR32
                         0000000E       1138 R14      EQU   14,,,,GR32
                         0000000F       1139 R15      EQU   15,,,,GR32
 00000000                               1140          END   CEEIVP            Nominate CEEIVP as the entry point
 00000300 00000000                      1141                =V(CEETREC)
1                                    Relocation Dictionary                                 Page   18
-   Pos.Id   Rel.Id   Address  Type  Action                                  HLASM R6.0  2013/08/10 20.09
0  00000004 00000004 00000050   A 4     +
   00000004 00000004 0000010C   A 4     +
   00000004 00000004 00000110   A 4     +
   00000004 00000004 0000028C   A 4     +
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   00000004 00000004 000002B0   A 4     +
   00000004 00000004 000002BC   A 4     +
   00000004 00000004 000002E4   A 4     +
   00000004 00000006 00000054   V 4    ST
   00000004 0000000C 0000011C   V 4    ST
   00000004 0000000D 00000120   V 4    ST
   00000004 0000000E 00000124   V 4    ST
   00000004 0000000F 000002C0   V 4    ST
   00000004 0000000F 000002D8   A 4     +
   00000004 00000010 000002C4   V 4    ST
   00000004 00000011 00000300   V 4    ST
   0000000A 00000004 00000308   A 4     +
1                              Ordinary Symbol and Literal Cross Reference                                  Page   19
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0CEEBETBL      1 00000000 00000010     T                  623  623
 CEECAA        1 00000000 FFFFFFFC     J                  786  396   398   412
 CEECAA_ALTSTK_ACTIVE
               1 00000004 FFFFFFFC A   U                  919
 CEECAA_CANCELSAFE
               1 00000008 FFFFFFFC A   U                  998
 CEECAA_CEEDLLF
               4 000003E4 FFFFFFFC     A  A              1109
 CEECAA_CICS_EXT_REG
               1 00000020 FFFFFFFC A   U                  959
 CEECAA_CTOC
               4 0000034C FFFFFFFC     A  A              1038
 CEECAA_DANCHOR
               4 00000348 FFFFFFFC     A  A              1037
 CEECAA_DCRENT
               4 00000344 FFFFFFFC     A  A              1036
 CEECAA_EINTR_PUTB
               1 00000040 FFFFFFFC A   U                 1018
 CEECAA_EINTR_REST
               1 00000020 FFFFFFFC A   U                 1020
 CEECAA_EINTR_RSOL
               1 00000080 FFFFFFFC A   U                 1015
 CEECAA_EINTR_SIGG
               1 00000010 FFFFFFFC A   U                 1024
 CEECAA_ENQ_WAIT_INTERRUPTABLE
               1 00000002 FFFFFFFC A   U                  920
 CEECAA_FETCH_RELES_IN_PROGRESS
               1 00000004 FFFFFFFC A   U                  968
 CEECAA_FORDBG
               4 00000398 FFFFFFFC     A  A              1070
 CEECAA_FRZ_UNSAFE
               1 00000002 FFFFFFFC A   U                 1008
 CEECAA_HCOM_REG14
               4 00000360 FFFFFFFC     A  A              1045
 CEECAA_HCOM_REG7
               4 00000360 FFFFFFFC     A  A              1044
```

```
 CEECAA_HIGH_IO
              1 00000002 FFFFFFFC A   U                  850
 CEECAA_INITTERM_H
              1 00000001 FFFFFFFC A   U                  851
 CEECAA_INITTERM_L
              1 00000010 FFFFFFFC A   U                  847
 CEECAA_INVAR
              2 000002B2 FFFFFFFC     X  X               928
 CEECAA_LER4
              8 00000388 FFFFFFFC     C  C              1055
 CEECAA_LER5N1
              4 000003B4 FFFFFFFC     C  C              1088
 CEECAA_LOW_IO
              1 00000020 FFFFFFFC A   U                  846
 CEECAA_NOAPPREGS
              1 00000001 FFFFFFFC A   U                 1010
 CEECAA_PM
              1 000002B1 FFFFFFFC     X  X               927
 CEECAA_RTLALLOC
1                            Ordinary Symbol and Literal Cross Reference                          Page   20
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                HLASM R6.0  2013/08/10 20.09
0             1 00000008 FFFFFFFC A   U                  858
 CEECAA_RTLCICS
              1 00000010 FFFFFFFC A   U                  857
 CEECAA_RTLCOUNT
              1 00000004 FFFFFFFC A   U                  859
 CEECAA_RTLFUNC
              1 00000001 FFFFFFFC A   U                  861
 CEECAA_RTLLOCKS
              1 00000002 FFFFFFFC A   U                  860
 CEECAA_RTLXPLI
              1 00000020 FFFFFFFC A   U                  856
 CEECAA_SA_RESTART
              1 00000040 FFFFFFFC A   U                  992
 CEECAA_SAVSTACK
              4 000003E8 FFFFFFFC     A  A              1111
 CEECAA_SAVSTACK_ASYNC
              4 000003F4 FFFFFFFC     A  A              1115
 CEECAA_SIGNAL_STATUS
              4 0000035C FFFFFFFC     A  A              1043
 CEECAA_SIGNALS_H
              1 00000004 FFFFFFFC A   U                  849
 CEECAA_SIGNALS_L
              1 00000040 FFFFFFFC A   U                  845
 CEECAA_SIGPUTBACK
              1 00000080 FFFFFFFC A   U                  991
 CEECAA_SIGRESYNCH
              1 00000004 FFFFFFFC A   U                 1003
 CEECAA_SIGSAFE
              1 00000010 FFFFFFFC A   U                  994
```

```
 CEECAA_SIGSCTR
               4 00000334 FFFFFFFC     F  F               985
 CEECAA_SIGSFLG
               4 00000338 FFFFFFFC     X  X               987
 CEECAA_STACKDIRECTION
               1 0000039D FFFFFFFC     X  X              1078
 CEECAA_STACKFLOOR
               4 00000364 FFFFFFFC     A  A              1046
 CEECAA_SYS_RSNCODE
               4 00000380 FFFFFFFC     F  F              1053
 CEECAA_SYS_RTNCODE
               4 0000037C FFFFFFFC     F  F              1052
 CEECAA_TCASRV
              36 00000258 FFFFFFFC     C  C               880
 CEECAA_TCASRV_ATTENTION
               4 00000274 FFFFFFFC     A  A               888
 CEECAA_TCASRV_DELETE
               4 0000026C FFFFFFFC     A  A               886
 CEECAA_TCASRV_EXCEPTION
               4 00000270 FFFFFFFC     A  A               887
 CEECAA_TCASRV_FREEMAIN
               4 00000264 FFFFFFFC     A  A               884
 CEECAA_TCASRV_GETMAIN
               4 00000260 FFFFFFFC     A  A               883
 CEECAA_TCASRV_LOAD
               4 00000268 FFFFFFFC     A  A               885
1                            Ordinary Symbol and Literal Cross Reference                                Page   21
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0CEECAA_TCASRV_MESSAGE
               4 00000278 FFFFFFFC     A  A               889
 CEECAA_TCASRV_USERWORD
               4 00000258 FFFFFFFC     A  A               881
 CEECAA_TCASRV_WORKAREA
               4 0000025C FFFFFFFC     A  A               882
 CEECAA_THREAD_INITIAL
               1 00000010 FFFFFFFC A   U                  916
 CEECAA_TRACE_ACTIVE
               1 00000008 FFFFFFFC A   U                  917
 CEECAA_USE_OLD_STK
               1 00000040 FFFFFFFC A   U                  958
 CEECAA_USER_WORD
               4 000003F0 FFFFFFFC     F  F              1114
 CEECAA_USRSTK_ACTIVE
               1 00000001 FFFFFFFC A   U                  922
 CEECAA_VECTOR
               1 00000040 FFFFFFFC A   U                  914
 CEECAAAB_ABCC
               4 000003A8 FFFFFFFC     A  A              1084
 CEECAAAB_ABCC_VALID
               1 00000020 FFFFFFFC A   U                 1075
```

```
 CEECAAAB_CRC
              4 000003AC FFFFFFFC     A  A              1085
 CEECAAAB_CRC_VALID
              1 00000010 FFFFFFFC A   U                1076
 CEECAAAB_GR0
              4 000003A0 FFFFFFFC     A  A              1082
 CEECAAAB_GR0_VALID
              1 00000080 FFFFFFFC A   U                1073
 CEECAAAB_GR15
              4 000002D4 FFFFFFFC     U                1086
 CEECAAAB_GR15_VALID
              1 00000008 FFFFFFFC A   U                1077
 CEECAAAB_ICD1
              4 000003A4 FFFFFFFC     A  A              1083
 CEECAAAB_ICD1_VALID
              1 00000040 FFFFFFFC A   U                1074
 CEECAAAB_STATUS
              1 0000039C FFFFFFFC     X  X              1072
 CEECAAABCODE
              4 000002D0 FFFFFFFC     F  F               936
 CEECAAACALL
              4 000001C4 FFFFFFFC     X  X               821
 CEECAAAGTS
              4 000003B0 FFFFFFFC     A  A              1087
 CEECAAALLOC
              4 000001A8 FFFFFFFC     X  X               813
 CEECAAATTN
              4 00000120 FFFFFFFC     A  A               804
 CEECAABCALL
              4 000001C0 FFFFFFFC     X  X               820
 CEECAABIMODAL
              1 00000080 FFFFFFFC A   U                 913
 CEECAABOS
1                              Ordinary Symbol and Literal Cross Reference                                Page   22
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0             4 00000008 FFFFFFFC     A  A               797
 CEECAAC_COMTRACE
              1 00000207 FFFFFFFC     X  X               853
 CEECAAC_RTL
              4 00000204 FFFFFFFC     F  F               837
 CEECAAC_RTL_1
              1 00000204 FFFFFFFC     X  X               839
 CEECAAC_RTL_2
              1 00000205 FFFFFFFC     X  X               841
 CEECAAC_RTL_3
              1 00000206 FFFFFFFC     X  X               843
 CEECAACD      4 000002D0 FFFFFFFC     X  X               937
 CEECAACEDB
              4 00000218 FFFFFFFC     A  A               867
 CEECAACEL_HPXV_B
```

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                4 000003D0 FFFFFFFC     A  A              1098
 CEECAACEL_HPXV_L
                4 000003D8 FFFFFFFC     A  A              1102
 CEECAACEL_HPXV_M
                4 000003D4 FFFFFFFC     A  A              1100
 CEECAACEL_HPXV_O
                4 000003DC FFFFFFFC     A  A              1105
 CEECAACELV
                4 000002B8 FFFFFFFC     A  A               930
 CEECAACEL4VEC3
                4 000003E0 FFFFFFFC     A  A              1108
 CEECAACFLTINIT
                8 000001F8 FFFFFFFC     X  X               835
 CEECAACGENE
                4 000001F0 FFFFFFFC     A  A               833
 CEECAACGOTO
                4 000001DC FFFFFFFC     X  X               827
 CEECAACICSRSN
                4 00000354 FFFFFFFC     A  A              1040
 CEECAACIO
                4 00000220 FFFFFFFC     A  A               870
 CEECAACPCB
                4 00000214 FFFFFFFC     A  A               866
 CEECAACPRMS
                4 00000200 FFFFFFFC     A  A               836
 CEECAACRENT
                4 000001F4 FFFFFFFC     A  A               834
 CEECAACTHD
                4 00000208 FFFFFFFC     A  A               863
 CEECAACTOFSV
                4 00000238 FFFFFFFC     F  F               877
 CEECAACURRFECB
                4 0000020C FFFFFFFC     A  A               864
 CEECAADBGINIT
                1 00000020 FFFFFFFC A   U                  791
 CEECAADDSA
                4 000002E0 FFFFFFFC     A  A               942
 CEECAADIMA
                4 000001A4 FFFFFFFC     A  A               810
 CEECAADMC
1                              Ordinary Symbol and Literal Cross Reference                                Page   23
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0               4 000002CC FFFFFFFC     A  A               935
 CEECAADO       4 000001C8 FFFFFFFC     X  X               822
 CEECAAEDB
                4 000002F0 FFFFFFFC     A  A               946
 CEECAAEDCHPXV
                4 0000036C FFFFFFFC     A  A              1048
 CEECAAEDCOV
                4 00000234 FFFFFFFC     A  A               876
```

```
CEECAAEDCV
              4 00000210 FFFFFFFC     A  A               865
CEECAAENTRY
              4 000001B0 FFFFFFFC     X  X               815
CEECAAEOS
              4 0000000C FFFFFFFC     A  A               798  396
CEECAAERR
              4 000002D8 FFFFFFFC     A  A               940
CEECAAEXIT
              4 000001B4 FFFFFFFC     X  X               816
CEECAAEYEPTR
              4 000002F8 FFFFFFFC     A  A               951
CEECAAFCBMUTEXOK
              2 00000228 FFFFFFFC     X  X               872
CEECAAFDSETFD
              4 00000224 FFFFFFFC     F  F               871
CEECAAFLAG0
              1 00000000 FFFFFFFC     X  X               787
CEECAAFLAG1
              1 0000030C FFFFFFFC     X  X               956
CEECAAFLAG2
              1 000002AF FFFFFFFC     X  X               912
CEECAAFOR1
              4 00000370 FFFFFFFC     A  A              1049
CEECAAFOR2
              4 00000374 FFFFFFFC     A  A              1050
CEECAAGETFN
              4 00000384 FFFFFFFC     A  A              1054
CEECAAGETLS
              4 000002B4 FFFFFFFC     A  A               929
CEECAAGETS
              4 000002BC FFFFFFFC     A  A               931  398
CEECAAGETSX
              4 000002DC FFFFFFFC     A  A               941
CEECAAGETS1
              4 00000300 FFFFFFFC     A  A               953
CEECAAGOSMR
              2 0000032C FFFFFFFC     H  H               981
CEECAAHERP
              4 000003B8 FFFFFFFC     A  A              1089
CEECAAHLLEXIT
              4 0000015C FFFFFFFC     A  A               807
CEECAAHOOK
             12 00000198 FFFFFFFC     X  X               809
CEECAAHOOKS
             68 000001A8 FFFFFFFC     C  C               812
CEECAAHPGETS
1                              Ordinary Symbol and Literal Cross Reference                              Page   24
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                 HLASM R6.0  2013/08/10 20.09
0             4 00000368 FFFFFFFC     A  A              1047
```

```
CEECAAHRDWR
             1 000002AD FFFFFFFC     X  X              900
CEECAAHWESA
             1 00000004 FFFFFFFC A   U                 905
CEECAAHWUND
             1 00000000 FFFFFFFC A   U                 901
CEECAAHWUNS
             1 00000001 FFFFFFFC A   U                 902
CEECAAHWXA
             1 00000003 FFFFFFFC A   U                 904
CEECAAHW370
             1 00000002 FFFFFFFC A   U                 903
CEECAAIFFALSE
             4 000001D0 FFFFFFFC     X  X              824
CEECAAIFTRUE
             4 000001CC FFFFFFFC     X  X              823
CEECAALABEL
             4 000001BC FFFFFFFC     X  X              819
CEECAALANGP
             1 00000002 FFFFFFFC     X  X              792
CEECAALBOS
             4 000002C0 FFFFFFFC     A  A              932
CEECAALEOS
             4 000002C4 FFFFFFFC     A  A              933
CEECAALEOV
             4 00000330 FFFFFFFC     A  A              984
CEECAALEVEL
             1 000002B0 FFFFFFFC     X  X              925
CEECAALNAB
             4 000002C8 FFFFFFFC     A  A              934
CEECAALWS
             4 00000280 FFFFFFFC     A  A              891  412
CEECAAMEMBR
             4 00000358 FFFFFFFC     A  A             1042
CEECAAMEVMASK
             4 000001EC FFFFFFFC     X  X              832
CEECAAMEXIT
             4 000001B8 FFFFFFFC     X  X              817
CEECAAMULTEVT
             4 000001E8 FFFFFFFC     X  X              830
CEECAAOTHER
             4 000001D8 FFFFFFFC     X  X              826
CEECAAPARTSUM
             4 000002E8 FFFFFFFC     F  F              944
CEECAAPATHS
            32 000001BC FFFFFFFC     C  C              818
CEECAAPCB
             4 000002F4 FFFFFFFC     A  A              947
CEECAAPICICB
             4 00000324 FFFFFFFC     A  A              978
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 CEECAAPRGCK
              4 00000308 FFFFFFFC     A  A               955
 CEECAAPTR
              4 000002FC FFFFFFFC     A  A               952
1                            Ordinary Symbol and Literal Cross Reference                                Page   25
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0CEECAARCB
              4 00000350 FFFFFFFC     A  A              1039
 CEECAARS     4 000002D4 FFFFFFFC     X  X               939 1086
 CEECAARSNCODE
              4 000002D4 FFFFFFFC     F  F               938
 CEECAARSRV1
              4 00000314 FFFFFFFC     A  A               973
 CEECAARSRV2
              4 00000328 FFFFFFFC     A  A               979
 CEECAARSVDH1
              4 000001E0 FFFFFFFC     X  X               828
 CEECAARSVDH2
              4 000001E4 FFFFFFFC     X  X               829
 CEECAASAVR
              4 00000284 FFFFFFFC     A  A               892
 CEECAASBSYS
              1 000002AE FFFFFFFC     X  X               906
 CEECAASECTSIZ
              4 000002E4 FFFFFFFC     F  F               943
 CEECAASHAB
              4 00000304 FFFFFFFC     A  A               954
 CEECAASHAB_IGNORED
              1 00000008 FFFFFFFC A   U                  966
 CEECAASHAB_KEY
              1 0000030D FFFFFFFC     X  X               969
 CEECAASHAB_RECOVER_IN_ESTAE_MODE
              1 00000010 FFFFFFFC A   U                  960
 CEECAASIGNG
              4 00000394 FFFFFFFC     F  F              1066
 CEECAASIGNGPTR
              4 00000390 FFFFFFFC     A  A              1064
 CEECAASORT
              1 00000080 FFFFFFFC A   U                  957
 CEECAASPCFLAG3
              1 0000021F FFFFFFFC     X  X               869
 CEECAASSCIC
              1 00000005 FFFFFFFC A   U                  911
 CEECAASSEXPNT
              4 000002EC FFFFFFFC     F  F               945
 CEECAASSNON
              1 00000002 FFFFFFFC A   U                  909
 CEECAASSTSO
              1 00000003 FFFFFFFC A   U                  910
 CEECAASSUND
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```
                1 00000000 FFFFFFFC A   U                  907
 CEECAASSUNS
                1 00000001 FFFFFFFC A   U                  908
 CEECAASTACK_DOWN
                1 00000001 FFFFFFFC A   U                 1080
 CEECAASTACK_UP
                1 00000000 FFFFFFFC A   U                 1079
 CEECAASTATE
                4 000001AC FFFFFFFC     X  X               814
 CEECAASYMVS
                1 00000003 FFFFFFFC A   U                  899
1                           Ordinary Symbol and Literal Cross Reference                                Page   26
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0CEECAASYSTM
                1 000002AC FFFFFFFC     X  X               895
 CEECAASYUND
                1 00000000 FFFFFFFC A   U                  896
 CEECAASYUNS
                1 00000001 FFFFFFFC A   U                  897
 CEECAASYVM
                1 00000002 FFFFFFFC A   U                  898
 CEECAATC16
                4 0000022C FFFFFFFC     F  F               874
 CEECAATC17
                4 00000230 FFFFFFFC     F  F               875
 CEECAATHDID
                8 0000033C FFFFFFFC     C  C              1035
 CEECAATHFN
                1 00000008 FFFFFFFC A   U                  793
 CEECAATHREADHEAPID
                4 00000378 FFFFFFFC     A  A              1051
 CEECAATIP
                1 00000020 FFFFFFFC A   U                  915
 CEECAATORC
                4 00000044 FFFFFFFC     F  F               800
 CEECAATOVF
                4 00000074 FFFFFFFC     A  A               802
 CEECAATRTSPACE
                4 0000023C FFFFFFFC     A  A               878
 CEECAAUDHOOK
                8 000003C8 FFFFFFFC     X  X              1093
 CEECAAURC
                4 00000310 FFFFFFFC     F  F               972
 CEECAAUSERRTN@
                4 000003C4 FFFFFFFC     A  A              1092
 CEECAAUSTKBOS
                4 000003BC FFFFFFFC     A  A              1090
 CEECAAUSTKEOS
                4 000003C0 FFFFFFFC     A  A              1091
 CEECAAWHEN
```

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              4 000001D4 FFFFFFFC     X  X               825
 CEECAAXHDL
              1 00000002 FFFFFFFC A   U                  788
 CEECELVGTUN
              1 00000094 FFFFFFFC A   U                 1122
 CEEDATM      1 00000000 0000000E     T                  521  521
 CEEDSA       1 00000000 FFFFFFFE     J                  690  384M  392   405M  406M  407M  407   408M  411U  730   776
 CEEDSA_STDCEEDSA
              1 00000000 FFFFFFFE A   U                  731
 CEEDSAAUTO
              8 00000080 FFFFFFFE     D  D               728
 CEEDSABKC
              4 00000004 FFFFFFFE     A  A               697  405M
 CEEDSACILC
              4 00000068 FFFFFFFE     A  A               720
 CEEDSAEND
              8 00000080 FFFFFFFE     D  D               729  730
 CEEDSAEXIT
1                              Ordinary Symbol and Literal Cross Reference                              Page   27
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0             1 00000008 FFFFFFFE A   U                  695
 CEEDSAFLAGS
              2 00000000 FFFFFFFE     X  X               692  407M  407
 CEEDSAFWC
              4 00000008 FFFFFFFE     A  A               698  408M
 CEEDSAHP     1 00000000 FFFFFFFD     J                  740
 CEEDSAHP_ARG_PRE
              4 0000083C FFFFFFFD     A  A               770
 CEEDSAHP_ARGLIST
              1 00000840 FFFFFFFD     X  X               773
 CEEDSAHP_BIAS
           2048 00000000 FFFFFFFD     X  X               746  747
 CEEDSAHP_FIXED
              1 00000800 FFFFFFFD     X  X               748  750   752   772
 CEEDSAHPBIASSZ
              1 00000800 FFFFFFFD A   U                  747
 CEEDSAHPMBRUSE
              4 00000834 FFFFFFFD     F  F               768
 CEEDSAHPRENT
              4 0000083C FFFFFFFD     A  A               771
 CEEDSAHPR10
              4 00000818 FFFFFFFD     F  F               761
 CEEDSAHPR11
              4 0000081C FFFFFFFD     F  F               762
 CEEDSAHPR12
              4 00000820 FFFFFFFD     F  F               763
 CEEDSAHPR13
              4 00000824 FFFFFFFD     F  F               764
 CEEDSAHPR14
              4 00000828 FFFFFFFD     F  F               765
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 CEEDSAHPR15
              4 0000082C FFFFFFFD     F  F               766
 CEEDSAHPR4
              4 00000800 FFFFFFFD     F  F               753
 CEEDSAHPR5
              4 00000804 FFFFFFFD     F  F               754
 CEEDSAHPR6
              4 00000808 FFFFFFFD     F  F               755
 CEEDSAHPR7
              4 0000080C FFFFFFFD     F  F               756
 CEEDSAHPR8
              4 00000810 FFFFFFFD     F  F               759
 CEEDSAHPR9
              4 00000814 FFFFFFFD     F  F               760
 CEEDSAHPSZ
              1 00000040 FFFFFFFD A   U                  772
 CEEDSAHPTRAN
              4 00000838 FFFFFFFD     A  A               769
 CEEDSAHP4TO15
              4 00000800 FFFFFFFD     F  F               749
 CEEDSAHP4TO7
              4 00000800 FFFFFFFD     F  F               751
 CEEDSAHP8TO15
              4 00000810 FFFFFFFD     F  F               757  758
 CEEDSALNGC
1                              Ordinary Symbol and Literal Cross Reference                              Page   28
-Symbol   Length   Value     Id     R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0             1 00001000 FFFFFFFE A   U                  693
 CEEDSALNGP
              1 00000800 FFFFFFFE A   U                  694
 CEEDSALWS
              4 00000048 FFFFFFFE     A  A               714  412M
 CEEDSAMEMD
              2 00000002 FFFFFFFE     X  X               696
 CEEDSAMODE
              4 0000006C FFFFFFFE     A  A               721
 CEEDSANAB
              4 0000004C FFFFFFFE     A  A               715  392   406M
 CEEDSAPNAB
              4 00000050 FFFFFFFE     A  A               716
 CEEDSARENT
              4 00000064 FFFFFFFE     A  A               719
 CEEDSARMR
              4 00000078 FFFFFFFE     A  A               724
 CEEDSAR0     4 00000014 FFFFFFFE     F  F               701
 CEEDSAR1     4 00000018 FFFFFFFE     F  F               702
 CEEDSAR10
              4 0000003C FFFFFFFE     F  F               711
 CEEDSAR11
              4 00000040 FFFFFFFE     F  F               712
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 CEEDSAR12
              4 00000044 FFFFFFFE     F  F               713
 CEEDSAR14
              4 0000000C FFFFFFFE     F  F               699  384M
 CEEDSAR15
              4 00000010 FFFFFFFE     F  F               700
 CEEDSAR2     4 0000001C FFFFFFFE     F  F               703
 CEEDSAR3     4 00000020 FFFFFFFE     F  F               704
 CEEDSAR4     4 00000024 FFFFFFFE     F  F               705
 CEEDSAR5     4 00000028 FFFFFFFE     F  F               706
 CEEDSAR6     4 0000002C FFFFFFFE     F  F               707
 CEEDSAR7     4 00000030 FFFFFFFE     F  F               708
 CEEDSAR8     4 00000034 FFFFFFFE     F  F               709
 CEEDSAR9     4 00000038 FFFFFFFE     F  F               710
 CEEDSASZ     8 00000080 FFFFFFFE A   U                  730  665
 CEEDSATRAN
              4 00000064 FFFFFFFE     A  A               718
 CEEINPL      8 000002B0 00000004     D  D               613  402   615
 CEEINPLSTST
              4 000002B8 00000004     F  F               616  615
 CEEINPL0004
              4 00000050 00000004     A  A               402  385
 CEEINT       1 00000000 00000006     T                  403  403
 CEEINT0004
              4 00000054 00000004     V  V               403  386
 CEEIVP       1 00000000 00000004     J                  366  367   368   369   379   414   415U  513   515   642  1140
 CEELOCT      1 00000000 0000000D     T                  520  520
 CEEMAIN      1 00000308 0000000A     J                  510  511   512
 CEEMOUT      1 00000000 0000000C     T                  519  519
 CEESTART     1 00000000 0000000F     T                  633  622   639
 CEETIMES     4 000002E8 00000004     F  F               651  641
 CEETREC      1 00000000 00000011     T                 1141 1141
1                          Ordinary Symbol and Literal Cross Reference                          Page   29
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0CEET0010      4 0000010C 00000004     A  A               506  503
 CEEX0004      1 00000058 00000004     U                  404  397B  401B
 CEEY0004      1 00000118 00000004 A   U                  377  378   393   394   394
 CEEZ0004      1 00000014 00000004     U                  383  375B
 CEL_LEVEL_IDENTIFIER
              1 00000019 FFFFFFFC A   U                  926
 DATE_LEN      2 000000C0 FFFFFFFF     H  H               679  421M
 DATE_OUT     80 000000C2 FFFFFFFF     C  C               680  449
 DATM          4 00000124 00000004     V  V               521  466
 DEST          4 00000284 00000004     F  F               535  472   490
 DONE_END      1 0000013B 00000004     U                  526  524
 DONE_MSG      4 00000128 00000004     F  F               523  489
 DONE_ST      17 0000012A 00000004     C  C               525  524
 FBCODE        4 000000B4 FFFFFFFF     F  F               676  491
 GREG         17 000000A0 FFFFFFFF     C  C               675  427
 LEPTRLEN      1 00000004 FFFFFFFD A   U                  744
```

```
 LILIAN         4 00000094 FFFFFFFF     F  F               673  425
 LOCT           4 00000120 00000004     V  V               520  434
 MAINPPA        4 00000288 00000004     F  F               555  379
 MOUT           4 0000011C 00000004     V  V               519  479   497
 PARM1          4 00000080 FFFFFFFF     A  A               667
 PARM2          4 00000084 FFFFFFFF     A  A               668
 PARM3          4 00000088 FFFFFFFF     A  A               669
 PARM4          4 0000008C FFFFFFFF     A  A               670
 PARM5          4 00000090 FFFFFFFF     A  A               671
 PAT_SIZE       1 00000052 00000004 A   U                  529  482
 PATTERNS       1 00000004 00000004 A   U                  528  440
 PATTERN1       2 0000013C 00000004     H  H               530  441
 PATTERN2       2 0000018E 00000004     H  H               531
 PATTERN3       2 000001E0 00000004     H  H               532
 PATTERN4       2 00000232 00000004     H  H               533
 PLIST          8 00000080 FFFFFFFF     D  D               666  429M  433   451M  465   474M  478   492M  496
 PPANL0011
                2 000002A6 00000004     R  A               611  556
 PPA10011       4 00000288 00000004     F  F               554
 PPA2M0011
                4 000002E4 00000004     A  A               642  614   621
 PPA2S0011
                4 000002D8 00000004     A  A               639
 PPA20011       4 000002D4 00000004     F  F               634  575   641
 R00            1 00000000 FFFFFFFC A   U  GR32           1124
 R01            1 00000001 FFFFFFFC A   U  GR32           1125  433M  465M  478M  496M
 R02            1 00000002 FFFFFFFC A   U  GR32           1126  420M  421   425M  429   447M  451   471M  474   489M  492
 R03            1 00000003 FFFFFFFC A   U  GR32           1127  426M  448M  472M  490M
 R04            1 00000004 FFFFFFFC A   U  GR32           1128  427M  449M  473M  474   491M  492
 R05            1 00000005 FFFFFFFC A   U  GR32           1129  428M  429   450M  451
 R06            1 00000006 FFFFFFFC A   U  GR32           1130  440M  484M
 R07            1 00000007 FFFFFFFC A   U  GR32           1131  441M  448   482M  482
 R08            1 00000008 FFFFFFFC A   U  GR32           1132
 R09            1 00000009 FFFFFFFC A   U  GR32           1133
 R10            1 0000000A FFFFFFFC A   U  GR32           1134
 R11            1 0000000B FFFFFFFC A   U  GR32           1135
 R12            1 0000000C FFFFFFFC A   U  GR32           1136
 R13            1 0000000D FFFFFFFC A   U  GR32           1137  416U
 R14            1 0000000E FFFFFFFC A   U  GR32           1138  435M  467M  480M  498M
1                           Ordinary Symbol and Literal Cross Reference                          Page   30
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0R15           1 0000000F FFFFFFFC A   U  GR32           1139  434M  435B  466M  467B  479M  480B  497M  498B
 SECS          8 00000098 FFFFFFFF     D  D               674  426   447
 TODAY         8 000000C0 FFFFFFFF     D  D               678  471
 TOP_O_LOOP
               1 000000A8 00000004     U                  443  484B
 WORKAREA      1 00000000 FFFFFFFF     J                  664  416U  683
 WORKSIZE      1 00000118 FFFFFFFF A   U                  683  377
 =V(CEETREC)
               4 00000300 00000004     V                 1141  504
```

```
1                                         Macro and Copy Code Source Summary                                  Page   31
- Con Source                                       Volume    Members                       HLASM R6.0  2013/08/10 20.09
0     PRIMARY INPUT                                          B        BAL      BAS      BC       BCT      BE       BH
                                                             BL       BM       BNE      BNH      BNL      BNM      BNO
                                                             BNP      BNZ      BO       BP       BXH      BXLE     BZ
   L2 SYS1.MACLIB                                  37SY04    IEABRC   IEABRCX  SYSSTATE
   L7 PP.ADLE370.ZOS113.SCEEMAC                    37SY04    CEECAA   CEEDNUT  CEEDSA   CEEENTRY CEEPPA   CEETERM
1                                                Dsect Cross Reference                                        Page   32
-Dsect     Length      Id       Defn                                                       HLASM R6.0  2013/08/10 20.09
0CEECAA   00000400  FFFFFFFC     786
 CEEDSA   00000080  FFFFFFFE     690
 CEEDSAHP 00000840  FFFFFFFD     740
 WORKAREA 00000118  FFFFFFFF     664
1                                                      Using Map                                              Page   33
-                                                                                          HLASM R6.0  2013/08/10 20.09
   Stmt  -----Location----- Action ----------------Using----------------- Reg Max     Last Label and Using Text
           Count      Id           Type          Value    Range     Id        Disp    Stmt
0   370  00000000  00000004 PUSH
    371  00000000  00000004 DROP                                           **
    372  00000000  00000004 USING  ORDINARY    00000000 00001000 00000004  15 00054    386 *,15
    387  00000020  00000004 DROP                                           15              15
    410  0000006C  00000004 POP
    411  0000006C  00000004 USING  ORDINARY    00000000 00001000 FFFFFFFE  13 00048    412 CEEDSA,13
    415  0000007A  00000004 USING  ORDINARY    00000000 00001000 00000004  11 00300    504 CEEIVP,11
    416  0000007A  00000004 USING  ORDINARY    00000000 00001000 FFFFFFFF  13 000C2    496 WORKAREA,R13
1                                  General Purpose Register Cross Reference                                   Page   34
- Register  References (M=modified, B=branch, U=USING, D=DROP, N=index)                    HLASM R6.0  2013/08/10 20.09
0    0(0)      384   393M  394M  395M  396   406
     1(1)      384   389   392M  395   400M  405   406   407   407   408   409   413M  433M  465M  478M  496M  503M
     2(2)      384   385M  389M  413   420M  421   425M  429   447M  451   471M  474   489M  492
     3(3)      384   426M  429   448M  451   472M  474   490M  492
     4(4)      384   427M  429   449M  451   473M  474   491M  492
     5(5)      384   428M  429   450M  451
     6(6)      384   440M  484M
     7(7)      384   441M  448   482M  482
     8(8)      384
     9(9)      384
    10(A)      384
    11(B)      384   414M  415U
    12(C)      384   390   396   398   412
    13(D)      384   392   405   408   409M  411U  416U
    14(E)      384   388M  390M  391   399M  435M  467M  480M  498M  505M
    15(F)      372U  382   384   386M  387D  388B  398M  399B  400   434M  435B  466M  467B  479M  480B  497M  498B  504M  505B
1                                 Diagnostic Cross Reference and Assembler Summary                            Page   35
-                                                                                          HLASM R6.0  2013/08/10 20.09
0     No Statements Flagged in this Assembly
 HIGH LEVEL ASSEMBLER, 5696-234, RELEASE 6.0, PTF UK80712
0SYSTEM: z/OS 01.13.00              JOBNAME: GACUP       STEPNAME: B          PROCSTEP: C
0Data Sets Allocated for this Assembly
  Con DDname   Data Set Name                                Volume  Member
```

```
   P1 SYSIN    SMORSA.BOSTON.ASM.SOURCE                    37P003  CEEIVP
   L1 SYSLIB   SMORSA.ASM.ASM                              37P001
   L2          SYS1.MACLIB                                 37SY04
   L3          PP.HLASM.ZOS113.SASMMAC1                    37SY04
   L4          PP.HLASM.ZOS113.SASMMAC2                    37SY04
   L5          MQM.V710.SCSQMACS                           37P002
   L6          MQM.V710.SCSQASMS                           37P001
   L7          PP.ADLE370.ZOS113.SCEEMAC                   37SY04
      SYSADATA SMORSA.ASM.ADATA                            37P001  CEEIVP
      SYSLIN   SMORSA.BOSTON.ASM.OBJ                       37P003  CEEIVP
      SYSPRINT SMORSA.GACUP.JOB20889.D0000102.?

     800K allocated to Buffer Pool       Storage required     688K
     173 Primary Input Records Read         3088 Library Records Read                0 Work File Reads
       0 ASMAOPT Records Read               1659 Primary Print Records Written       0 Work File Writes
      39 Object Records Written             2313 ADATA Records Written
0Assembly Start Time: 20.09.39 Stop Time: 20.09.40 Processor Time: 00.00.00.0150
 Return Code 000

1z/OS V1 R13 BINDER     20:09:40 SATURDAY AUGUST 10, 2013
 BATCH EMULATOR  JOB(GACUP   ) STEP(B       ) PGM= HEWL      PROCEDURE(L       )
 IEW2278I B352 INVOCATION PARAMETERS - MAP,LET,LIST
 IEW2322I 1220  1    NAME CEEIVP(R)

1                       *** M O D U L E  M A P ***

 ---------------
 CLASS  B_TEXT           LENGTH =      950  ATTRIBUTES = CAT,   LOAD, RMODE=ANY
                         OFFSET =        0 IN SEGMENT 001       ALIGN = DBLWORD
 ---------------

  SECTION    CLASS                                        ------- SOURCE --------
   OFFSET   OFFSET  NAME               TYPE    LENGTH  DDNAME   SEQ  MEMBER

               0  CEEIVP             CSECT       304  SYSLIN    01  CEEIVP

             308  CEEMAIN            CSECT         8  SYSLIN    01  CEEIVP

             310  CEETREC         *  CSECT        14  SYSLIB    02  CEETREC

             328  CEEBETBL        *  CSECT        28  SYSLIB    02  CEEBETBL

             350  CEESTART        *  CSECT        B0  SYSLIB    02  CEESTART

             400  CEEDATM         *  CSECT        14  SYSLIB    02  CEEDATM

             418  CEELOCT         *  CSECT        14  SYSLIB    02  CEELOCT

             430  CEEMOUT         *  CSECT        14  SYSLIB    02  CEEMOUT
```

```
              448  CEEBPIRA        *  CSECT       2A0  SYSLIB    02  CEEINT
        0     448     CEEINT           LABEL
        0     448     CEEBPIRB         LABEL
        0     448     CEEBPIRC         LABEL

              6E8  CEECPYRT        *  CSECT        E2  SYSLIB    02  CEEINT

              7D0  CEEBPUBT        *  CSECT        70  SYSLIB    02  CEEBPUBT

              840  CEEBTRM         *  CSECT        A4  SYSLIB    02  CEEBTRM

              8E8  CEEBLLST        *  CSECT        5C  SYSLIB    02  CEEBLLST
       10     8F8     CEELLIST         LABEL

              948  CEEBINT         *  CSECT         8  SYSLIB    02  CEEBINT

 ---------------
 CLASS  B_PRV             LENGTH =        0  ATTRIBUTES = MRG, NOLOAD

 ---------------
1          ***  DATA SET SUMMARY  ***

 DDNAME    CONCAT   FILE IDENTIFICATION

 SYSLIB      02     PP.ADLE370.ZOS113.SCEELKED
 SYSLIN      01     SMORSA.BOSTON.ASM.OBJ

           *** E N D   O F   M O D U L E   M A P ***


                              *** O P E R A T I O N   S U M M A R Y   R E P O R T ***

1PROCESSING OPTIONS:

    ALIASES             NO
    ALIGN2              NO
    AMODE               UNSPECIFIED
    CALL                YES
    CASE                UPPER
    COMPAT              UNSPECIFIED
    COMPRESS            AUTO
    DCBS                NO
    DYNAM               NO
    EXTATTR             UNSPECIFIED
    EXITS:              NONE
    FILL                NONE
    GID                 UNSPECIFIED
    HOBSET              NO
    INFO                NO
```

```
    LET                 08
    LINECT              060
    LIST                SUMMARY
    LISTPRIV            NO
    MAP                 YES
    MAXBLK              032760
    MODMAP              NO
    MSGLEVEL            00
    OVLY                NO
    PRINT               YES
    RES                 NO
    REUSABILITY         UNSPECIFIED
    RMODE               UNSPECIFIED
    SIGN                NO
    STORENX             NOREPLACE
    STRIPCL             NO
    STRIPSEC            NO
    TERM                NO
    TRAP                ON
    UID                 UNSPECIFIED
    UPCASE              NO
    WKSPACE             000000K,000000K
    XCAL                NO
    XREF                NO
    ***END OF OPTIONS***



1SAVE OPERATION SUMMARY:

    MEMBER NAME         CEEIVP
    LOAD LIBRARY        SMORSA.BOSTON.ASM.LOAD
    PROGRAM TYPE        PROGRAM OBJECT(FORMAT 2)
    VOLUME SERIAL       37P004
    DISPOSITION         REPLACED
    TIME OF SAVE        20.09.40  AUG 10, 2013


1SAVE MODULE ATTRIBUTES:

    AC                  000
    AMODE                31
    COMPRESSION         NONE
    DC                  NO
    EDITABLE            YES
    EXCEEDS 16MB        NO
    EXECUTABLE          YES
    MIGRATABLE          YES
    OL                  NO
```

```
    OVLY                NO
    PACK,PRIME          NO,NO
    PAGE ALIGN          NO
    REFR                NO
    RENT                NO
    REUS                NO
    RMODE               ANY
    SCTR                NO
    SIGN                NO
    SSI
    SYM GENERATED       NO
    TEST                NO
    XPLINK              NO
    MODULE SIZE (HEX)   00000950
    DASD SIZE (HEX)     00005000

1 ENTRY POINT AND ALIAS SUMMARY:

  NAME:            ENTRY TYPE AMODE C_OFFSET CLASS NAME        STATUS

  CEEIVP            MAIN_EP      31 00000000 B_TEXT

                        *** E N D   O F   O P E R A T I O N   S U M M A R Y   R E P O R T ***



1z/OS V1 R13 BINDER     20:09:40 SATURDAY AUGUST 10, 2013
 BATCH EMULATOR  JOB(GACUP   ) STEP(B       ) PGM= HEWL      PROCEDURE(L       )
 IEW2008I 0F03 PROCESSING COMPLETED.  RETURN CODE =  0.



1----------------------
 MESSAGE SUMMARY REPORT
 ----------------------
  TERMINAL MESSAGES      (SEVERITY = 16)
  NONE

  SEVERE MESSAGES        (SEVERITY = 12)
  NONE

  ERROR MESSAGES         (SEVERITY = 08)
  NONE

  WARNING MESSAGES       (SEVERITY = 04)
  NONE

  INFORMATIONAL MESSAGES (SEVERITY = 00)
  2008  2278  2322
```

```
  **** END OF MESSAGE SUMMARY REPORT ****


Today is Tuesday, 10 August 2013.
Today is TUESDAY, AUGUST 10, 2013.
Today is Tuesday, 08/10/13 20:19:40.41
Today is day 222 of 2013
Program Complete.
```

DFH£ABRW

```
*ASM     XOPTS(NOPROLOG NOEPILOG)
         SYSSTATE AMODE64=YES,ARCHLVL=2
*
       IEABRCX DEFINE                Use relative branch
       IEABRCX ENABLE                Use relative branch
*
         TITLE 'DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER'
*****************************************************************
*                                                               *
* MODULE NAME = DFH£ABRW                                        *
*                                                               *
* DESCRIPTIVE NAME = File Browse for Sample Application         *
*                                                               *
*                                                               *
*                                                               *
*     Licensed Materials - Property of IBM                      *
*                                                               *
*     "Restricted Materials of IBM"                             *
*                                                               *
*     5655-Y04                                                  *
*                                                               *
*     (C) Copyright IBM Corp. 1984, 2012"                       *
*                                                               *
*                                                               *
*                                                               *
*                                                               *
* STATUS = 6.8.0                                                *
```

```
*                                                                     *
*---------------------------------------------------------------------*
*                                                                     *
* CHANGE ACTIVITY :                                                   *
* £SEG(DFH£ABRW),COMP(SAMPLES),PROD(CICS TS ):                        *
*                                                                     *
*     PN= REASON REL YYMMDD HDXIII : REMARKS                          *
*    £P0= Mnnnnn 170 840717 HDZZUNK: Created.                         *
*    £P1= M90474 330 910807 HDBWSH : Prologue fixed.                  *
*         R31410 680 120411 HDFVGMB: Story 30827 - AMODE 64 RMODE 31  *
*                                                                     *
***********************************************************************
         DFHEISTG DSECT
HEXZERO  DS    X'00'                        CONSTANT FOR CLEARING MAPS
COMMAREA DS    0CL13
STATUS   DS    CL1        FILE STATUS - HI OR LO END OR NORMAL (H/L/N)
KEYS     DS    0CL12
RIDB     DS    CL6                          TO BUILD PREV BACK PAGE
RIDF     DS    CL6                          TO BUILD NEXT FWD PAGE
MESSAGES DS    CL80
RESPONSE DS    F                            RESPONSES TO CICS COMMANDS
COMPTR   EQU   4
R3       EQU   3                            Reserved - used by DFHEIENT
R5       EQU   5
*
         COPY  DFHBMSCA                     STANDARD BMS ATTRIBUTES
         COPY  DFH£AFIL                     FILEA RECORD DESCRIPTION
         COPY  DFH£AGA                      'GENERAL MENU' MAP
         COPY  DFH£AGC                      'BROWSE FILEA' MAP
         COPY  DFHAID
         DFHEIEND
*
DFH£ABRW CSECT
DFH£ABRW AMODE 64
DFH£ABRW RMODE 31
         DFHEIENT DATAREG=13,EIBREG=11,STATREG=3,STATIC=STATR,CODEREG=0
*
*        THE LENGTH OF THE "COMMAREA" IS TESTED. IF NOT ZERO, THEN
*        THE PROGRAM MUST RECEIVE THE BROWSE MAP (DFH£AGC) WHICH WILL
*        CONTAIN THE OPERATOR COMMAND, INSTRUCTING THE PROGRAM TO
```

```
*        BROWSE FORWARD, BROWSE BACK OR TO TERMINATE AND DISPLAY THE
*        OPERATOR INSTRUCTION MAP (DFH£AGA).
*
         LH    COMPTR,EIBCALEN               TEST FOR COMMAREA
         LTR   COMPTR,COMPTR
         JNZ   RECEIVE                       PRESENT, GET BROWSE MAP
*
*        WORK AREAS ARE INITIALIZED TO BEGIN THE BROWSE.
*
         MVI   KEYS,X'F0'                            '0' INTO TOP BYTE
         MVC   KEYS+1(L'KEYS-1),KEYS                 SET KEYS TO ZERO
         MVI   MESSAGES,X'40'                        ' ' INTO TOP BYTE
         MVC   MESSAGES+1(L'MESSAGES-1),MESSAGES     CLEAR MESSAGES
*
*        THE COMMAND MAPS IN THE ACCOUNT NUMBER FROM THE OPERATOR
*        INSTRUCTION SCREEN. NOTICE THE USE OF THE "RESP" OPTION ON
*        THE COMMAND, WHICH RESULTS IN THE RESPONSE TO THE COMMAND
*        BEING MOVED TO THE BINARY FULLWORD VARIABLE "RESP", DEFINED
*        AT LINE 11 OF THE PROGRAM. THE PROGRAM MUST THEN EXPLICITLY
*        CHECK THIS RESPONSE, AND TAKE THE APPROPRIATE ACTION IF THE
*        RESPONSE WAS NOT "NORMAL". ALSO, NOTICE THAT THE "EIBAID"
*        FIELD OF THE EXEC INTERFACE BLOCK IS TESTED TO SEE IF THE
*        "CLEAR" KEY WAS PRESSED BEFORE THE RESPONSE TO THE COMMAND IS
*        CHECKED. WE CANNOT USE THE "HANDLE AID" COMMAND, AS THE "RESP"
*        OPTION IMPLIES "NOHANDLE".
*
         EXEC CICS RECEIVE MAP('DFH£AGA') RESP(RESPONSE)
         CLI   EIBAID,DFHCLEAR      WAS CLEAR KEY PRESSED?
         JE    SMSG                 ... YES, RE-DISPLAY MAP
         CLC   RESPONSE,DFHRESP(MAPFAIL) WAS MAPFAIL CONDITION RAISED?
         JE    SMSG                 ... YES, RE-DISPLAY MAP
         CLC   RESPONSE,DFHRESP(NORMAL) IS THERE AN UNEXPECTED ERROR?
         JNE   ERRORS               ... YES, TERMINATE TRANSACTION
*********************************************************************
*                                                                   *
*                                                                   *
*                                                                   *
*        Licensed Materials - Property of IBM                       *
*                                                                   *
*        "Restricted Materials of IBM"                              *
```

```
*                                                                     *
*        5655-Y04                                                     *
*                                                                     *
*        (C) Copyright IBM Corp. 1984, 2012"                          *
*                                                                     *
*                                                                     *
*                                                                     *
*                                                                     *
*                                    SIMPLE CHECKS OF INPUT DATA      *
***********************************************************************
*
*        IF NO ACCOUNT NUMBER IS ENTERED, BROWSING BEGINS AT THE
*        START OF THE FILE.
*
         CLC   KEYL,=H'0'          WAS ACCOUNT NUMBER OMITTED?
         JE    NOACCNUM             YES - FRONT OF FILE BY DEFAULT.
*
*        IF THE FORMAT OF THE ACCOUNT NUMBER IS VALID, THE NUMBER IS
*        USED TO SET THE PROGRAM'S BROWSE POINTERS, OTHERWISE AN ERROR
*        MESSAGE IS DISPLAYED ON THE OPERATOR INSTRUCTION MENU.
*        ENTERING THE MAXIMUM VALUE (999999) FOR THE ACCOUNT NUMBER
*        BEGINS A BACKWARD BROWSE FROM THE END OF THE FILE.
*
         TRT   KEYI,CHEKTAB        CHECK ACCOUNT NUMBER IS NUMERIC,
         JNZ   BADCHARS             IT ISN'T - GO DISPLAY MESSAGE.
         MVC   RIDF,KEYI
         MVC   RIDB,KEYI
         CLC   RIDF,=C'999999'      IF ACCOUNT NUMBER IS MAXIMUM
         JNE   BRWSNOW               SET RECORD KEY HIGH TO
         MVC   RIDF,=6X'FF'          BROWSE BACKWARD 1ST. TIME
         J     BRWSNOW
*
BADCHARS MVC   MESSAGES,=CL(L'MESSAGES)'ACCOUNT NUMBER MUST BE NUMERIC'
         J     AMNU
*
NOACCNUM MVC   RIDF,=C'000000'                       0 DIGITS ENTERED
         J     BRWSNOW
***********************************************************************
*                                    ESTABLISH START POINT            *
***********************************************************************
```

```
BRWSNOW  DS    0H
         MVI   STATUS,C'N'                  SET FILE STATUS NORMAL
*
*        THE "STARTBR" COMMAND ESTABLISHES THE BROWSE STARTING POINT
*
         EXEC CICS STARTBR FILE('FILEA') RIDFLD(RIDF) RESP(RESPONSE)
*                                           CHECK RESPONSES
         CLC   RESPONSE,DFHRESP(NOTFND)      DOES THE RECORD EXIST?
         JE    NOTFOUND                   ... NO, NOTIFY USER
         CLC   RESPONSE,DFHRESP(NORMAL)   WAS THERE AN UNEXPECTED ERROR
         JNE   ERRORS                     ... YES, TERMINATE TRANSACTION
         CLC   RIDF,=6X'FF'
         JNE   PAGEF
*                                 TREAT AS HI-EOF,
         MVI   STATUS,C'H'               AND
         J     PAGEB               PAGE BACKWARDS
*********************************************************************
*                                    BUILD NEXT FORWARD PAGE        *
*********************************************************************
PAGEF    DS    0H
*                                           CLEAR MAP
         BRAS  R5,CLEARMAP
*
*        THE LENGTH OF THE "COMMAREA" IS TESTED. IF ZERO, THEN THE
*        ROUTINE "NEXTLINE" GAINS CONTROL TO BUILD THE BROWSE MAP TO
*        BE DISPLAYED TO THE OPERATOR, IF NON-ZERO, A "STARTBR" COMMAND
*        IS ISSUED TO RESTART BROWSING AT THE RECORD WHOSE KEY IS
*        CONTAINED IN "RIDF". NOTE THE NEED FOR AN EXTRA "READNEXT"
*        WHEN BROWSING FORWARD FROM A POSITION IN THE MIDDLE OF THE
*        FILE.
*
         CLC   EIBCALEN,=H'0'               IF COMMAREA PRESENT, THEN
         JE    NEXTLINE                     THEN START BROWSE AT POINT
*                                           WE LEFT OFF LAST TIME
         EXEC  CICS STARTBR FILE('FILEA')                              *
               RIDFLD(RIDF)                                            *
               RESP(RESPONSE)
*                                          CHECK RESPONSES
         CLC   RESPONSE,DFHRESP(NOTFND)        DOES THE RECORD EXIST?
         JE    NOTFOUND                     ... NO, NOTIFY USER
```

```
         CLC   RESPONSE,DFHRESP(NORMAL)   WAS THERE AN UNEXPECTED ERROR
         JNE   ERRORS                   ... YES, TERMINATE TRANSACTION
         CLC   RIDF,=C'000000'            READ AND DISCARD REC.
         JE    NEXTLINE                   POINTED TO BY RIDF ONLY IF
         BRAS  R5,READNEXT                THE LO END OF FILE HAS NOT
*                                         BEEN REACHED.
NEXTLINE DS    0H
*
*        THE ROUTINE "READNEXT" IS GIVEN CONTROL, AND READS THE NEXT
*        RECORD FROM THE FILE INTO THE FILE AREA.
*
         BRAS  R5,READNEXT                 READ NEXT RECORD
*
*        THE ACCOUNT NUMBER, NAME, AND AMOUNT ARE MOVED TO THE FIRST
*        LINE OF THE BROWSE MAP AREA.
*
         MVC   NUMBER1O,NUMB               MOVE NUMBER TO MAP
         MVC   NAME1O,NAME                 MOVE NAME TO MAP
         MVC   AMOUNT1O,AMOUNT             MOVE AMOUNT TO MAP
         MVC   RIDB,RIDF                   RIDB ->EXISTING ACCOUNT NO.
*                                          READ 2ND. RECORD
*
*        THE SAME BASIC COMMANDS ARE REPEATED TO READ AND SET UP THE
*        NEXT THREE LINES. THE SAME FILE AREA IS USED FOR EACH READ.
*
         BRAS  R5,READNEXT
         MVC   NUMBER2O,NUMB             MOVE NUMB,NAME,AMOUNT->MAP
         MVC   NAME2O,NAME
         MVC   AMOUNT2O,AMOUNT
*                                        READ 3RD. RECORD
         BRAS  R5,READNEXT
         MVC   NUMBER3O,NUMB             MOVE NUMB,NAME,AMOUNT->MAP
         MVC   NAME3O,NAME
         MVC   AMOUNT3O,AMOUNT
*                                        READ 4TH. RECORD
         BRAS  R5,READNEXT
         MVC   NUMBER4O,NUMB             MOVE NUMB,NAME,AMOUNT->MAP
         MVC   NAME4O,NAME
         MVC   AMOUNT4O,AMOUNT
*
```

```
*
*        THE SCREEN IS ERASED AND THE FULL PAGE IS DISPLAYED AT THE
*        TERMINAL.
*
         EXEC CICS SEND MAP('DFH£AGC') ERASE RESP(RESPONSE)
         CLC   RESPONSE,DFHRESP(NORMAL)
         JNE   ERRORS
*                                       RETURN WITH COMMAREA
*
*        CONTROL IS RETURNED TO CICS AWAITING A RESPONSE FROM THE
*        TERMINAL. THE "RETURN" GIVES CICS THE TRANSACTION IDENTIFIER
*        FOR THE NEXT TRANSACTION AT THIS TERMINAL TOGETHER WITH A
*        "COMMAREA" CONTAINING ALL THE INFORMATION THAT THE PROGRAM
*        NEEDS TO BROWSE FORWARD OR BACK FROM THE CURRENT POSITION IN
*        THE FILE. THE "COMMAREA" IS PASSED TO THE NEXT INVOCATION OF
*        THIS PROGRAM.
*
         EXEC CICS RETURN TRANSID(EIBTRNID)                            *
               COMMAREA(COMMAREA)                                      *
               LENGTH(13)
*****************************************************************
*                                    BUILD PREVIOUS BACK PAGE       *
*****************************************************************
PAGEB    DS    0H
*                                        CLEAR MAP
         BRAS  R5,CLEARMAP
*
         CLC   EIBCALEN,=H'0'             START BROWSE WHERE WE LEFT
         JE    TESTSTAT                   OFF, IF COMMAREA PRESENT
         EXEC  CICS STARTBR FILE('FILEA')                              *
               RIDFLD(RIDB)                                            *
               RESP(RESPONSE)
*                                       CHECK RESPONSES
         CLC   RESPONSE,DFHRESP(NOTFND)     DOES THE RECORD EXIST?
         JE    NOTFOUND                  ... NO, NOTIFY USER
         CLC   RESPONSE,DFHRESP(NORMAL)  WAS THERE AN UNEXPECTED ERROR?
         JNE   ERRORS                    ... YES, TERMINATE TRANSACTION
*
TESTSTAT CLI   STATUS,C'H'                READ AND DISCARD POINTED TO
         JNE   PREVXTRA                   BY RIDB, ONLY IF THE HI END
```

```
         MVC   MSG1O,=CL(L'MSG1O)'HI END OF FILE'
         MVI   MSG1A,DFHBMASB
         J     PREVLINE
*                                       OF FILE HAS NOT BEEN REACHED
PREVXTRA DS    0H
         BRAS  R5,READPREV
*                                       READ 4 RECS. IN DESCENDING
PREVLINE DS    0H                       ORDER
*
*        BACKWARDS BROWSING CALLS THE ROUTINE "READPREV" TO READ THE
*        PREVIOUS RECORD INTO THE FILE AREA. THE RECORD IS THEN STORED
*        IN THE MAP AREA STARTING AT THE BOTTOM LINE. NOTE THERE IS NO
*        NEED FOR AN EXTRA "READPREV" WHEN BROWSING BACK FROM THE HIGH
*        END OF THE FILE. ALSO, IF THE PROGRAM IS PASSED A "COMMAREA",
*        THEN IT IS NECESSARY TO START BROWSING AT THE POINT THE
*        PREVIOUS BROWSE ENDED.
*
         MVI   STATUS,C'N'
         BRAS  R5,READPREV
         MVC   NUMBER4O,NUMB              MOVE NUMBER TO MAP AREA
         MVC   NAME4O,NAME                MOVE NAME TO MAP AREA
         MVC   AMOUNT4O,AMOUNT            MOVE AMOUNT TO MAP AREA
         MVC   RIDF,RIDB
*                                         READ PREV. RECORD
         BRAS  R5,READPREV
         MVC   NUMBER3O,NUMB              MOVE NUMBER TO MAP AREA
         MVC   NAME3O,NAME                MOVE NAME TO MAP AREA
         MVC   AMOUNT3O,AMOUNT            MOVE AMOUNT TO MAP AREA
*                                         READ PREV. RECORD
         BRAS  R5,READPREV
         MVC   NUMBER2O,NUMB              MOVE NUMBER TO MAP AREA
         MVC   NAME2O,NAME                MOVE NAME TO MAP AREA
         MVC   AMOUNT2O,AMOUNT            MOVE AMOUNT TO MAP AREA
*                                         READ PREV. RECORD
         BRAS  R5,READPREV
         MVC   NUMBER1O,NUMB              MOVE NUMBER TO MAP AREA
         MVC   NAME1O,NAME                MOVE NAME TO MAP AREA
         MVC   AMOUNT1O,AMOUNT            MOVE AMOUNT TO MAP AREA
*
*        THE SCREEN IS ERASED AND THE FULL PAGE IS DISPLAYED AT THE
```

```
*        TERMINAL. CONTROL IS RETURNED TO CICS, ALONG WITH A TRANSAC-
*        TION IDENTIFIER FOR THE NEXT TRANSACTION AT THIS TERMINAL
*        TOGETHER WITH A "COMMAREA".
*
         EXEC CICS SEND MAP('DFH£AGC') ERASE RESP(RESPONSE)
         CLC   RESPONSE,DFHRESP(NORMAL)
         JNE   ERRORS
*                                        RETURN CONTROL AND COMMAREA
         EXEC  CICS RETURN                                          *
               TRANSID(EIBTRNID)                                    *
               COMMAREA(COMMAREA) LENGTH(13)
*************************************************************************
*                                    RECEIVE NEXT PAGING REQUEST    *
*************************************************************************
RECEIVE  DS    0H
*
*        THIS CODE GAINS CONTROL WHEN THE PROGRAM IS PASSED A
*        "COMMAREA". A "RECEIVE" COMMAND IS ISSUED TO RETRIEVE THE
*        OPERATOR INSTRUCTION. THE PROGRAM EXPLICITLY TESTS TO SEE
*        IF THE "CLEAR", "PF1", "PF2", "F" OR "B" WAS PRESSED.
*        ANY OTHER TERMINAL RESPONSE IS IGNORED.
*
         LG    COMPTR,DFHEICAP              UPDATE RIDF,RIDB,STATUS
         MVC   COMMAREA,0(COMPTR)           WITH DATA FROM COMMAREA
         EXEC CICS RECEIVE MAP('DFH£AGC') RESP(RESPONSE)
         CLI   EIBAID,DFHCLEAR              WAS CLEAR KEY PRESSED?
         JE    SMSG                         ... YES, RE-DISPLAY MAP
         CLI   EIBAID,DFHPF1                WAS PF1 PRESSED?
         JE    PAGEF                        ... YES, SHOW NEXT 4 RECS.
         CLI   EIBAID,DFHPF2                WAS PF2 PRESSED?
         JE    PAGEB                        ... YES, SHOW PREV. 4 RECS.
         CLC   RESPONSE,DFHRESP(MAPFAIL)        MAPFAIL ERROR?
         JE    SMSG                         ... YES, REDISPLAY MAP
         CLC   RESPONSE,DFHRESP(NORMAL)
         JNE   ERRORS
         CLI   DIRI,C'F'                    PAGE FORWARD REQUIRED?
         JE    PAGEF                        ..YES, GO TO PAGEF ROUTINE
         CLI   DIRI,C'B'                    PAGE BACK REQUIRED?
         JE    PAGEB                        ..YES, GO TO PAGEB ROUTINE
*                                          ..NO,IGNORE -RESET KEYBOARD
```

```
         EXEC CICS SEND CONTROL                                        *
               FREEKB FRSET RESP(RESPONSE)
         CLC   RESPONSE,DFHRESP(NORMAL)
         JNE   ERRORS
*                                          RETURN CONTROL AND COMMAREA
         EXEC CICS RETURN TRANSID(EIBTRNID)                            *
               COMMAREA(COMMAREA)                                      *
               LENGTH(13)
*********************************************************************
*                 CLEAR MAP USED TO DISPLAY RECORDS, DFH£AGCO        *
*********************************************************************
CLEARMAP DS    0H
*
*        THIS ROUTINE CLEARS THE MAP USED TO DISPLAY THE BROWSED
*        RECORDS.
*
         LA    6,DFH£AGCO                  R6->START OF MAP DFH£AGC
         LA    7,(DFH£AGCE-DFH£AGCO)       R7->LENGTH OF DFH£AGC
         LA    8,HEXZERO                   R8-> X'00'
         LA    9,L'HEXZERO                 R9-> LENGTH OF HEXZERO
         ICM   9,B'100',HEXZERO            X'00' INTO TOP BYTE OF R9
         MVCL  6,8                         MOVE X'00' INTO DFH£AGCO
         BR    R5                          RETURN TO CALLING ROUTINE
*********************************************************************
*                 READ NEXT RECORD                                   *
*********************************************************************
READNEXT DS    0H
*
*        THE ROUTINE "READNEXT" READS THE NEXT RECORD FROM THE FILE,
*        WITH RESPECT TO THE KEY CONTAINED IN "RIDF". THE RESPONSE IS
*        CHECKED AND IF "NORMAL" THEN CONTROL IS PASSED BACK TO THE
*        CALLING ROUTINE.
*
         EXEC CICS READNEXT                                            *
               INTO(FILEA)                                             *
               FILE('FILEA')                                           *
               RIDFLD(RIDF)                                            *
               RESP(RESPONSE)
*                                       CHECK RESPONSES TO COMMAND
         CLC   RESPONSE,DFHRESP(ENDFILE)       END OF FILE?
```

```
         JE    TOOHIGH                        ...YES, NOTIFY USER
         CLC   RESPONSE,DFHRESP(NOTFND)          DOES THE RECORD EXIST?
         JE    NOTFOUND                       ...NO, NOTIFY USER
         CLC   RESPONSE,DFHRESP(NORMAL)          UNEXPECTED ERROR?
         JNE   ERRORS                         ...YES, TERMINATE TRANS.
         BR    R5                           OK,RETURN TO CALLING ROUTINE
*********************************************************************
*                 READ PREVIOUS RECORD                              *
*********************************************************************
READPREV DS    0H
*
*        THE ROUTINE "READPREV" READS THE PREV. RECORD FROM THE FILE,
*        WITH RESPECT TO THE KEY CONTAINED IN "RIDB". THE RESPONSE IS
*        CHECKED AND IF "NORMAL" THEN CONTROL IS PASSED BACK TO THE
*        CALLING ROUTINE.
*
         EXEC CICS READPREV                                          *
               INTO(FILEA)                                           *
               FILE('FILEA')                                         *
               RIDFLD(RIDB)                                          *
               RESP(RESPONSE)
*                                     CHECK RESPONSES TO COMMAND
         CLC   RESPONSE,DFHRESP(ENDFILE)      END OF FILE?
         JE    TOOLOW                          ...YES, NOTIFY USER
         CLC   RESPONSE,DFHRESP(NOTFND)          DOES THE RECORD EXIST?
         JE    NOTFOUND                       ...NO, NOTIFY USER
         CLC   RESPONSE,DFHRESP(NORMAL)          UNEXPECTED ERROR?
         JNE   ERRORS                         ...YES, TERMINATE TRANS.
         BR    R5                           OK,RETURN TO CALLING ROUTINE
*********************************************************************
*                               HANDLE END OF FILE CONDITIONS       *
*********************************************************************
TOOHIGH  DS    0H
*
*        IF THE END OF FILE IS REACHED ANY RECORDS READ TO THAT POINT
*        ARE DISPLAYED TOGETHER WITH A HIGHLIGHTED MESSAGE "HI END OF
*        FILE".
*
         MVI   STATUS,C'H'                  SET STATUS 'HI END'
         MVC   RIDB,RIDF
```

```
         MVI   DIRO,X'40'
         MVC   MSG1O,=CL(L'MSG1O)'HI END OF FILE'
         MVI   MSG1A,DFHBMASB                                  MSG=BRT
         EXEC CICS SEND MAP('DFH£AGC') ERASE RESP(RESPONSE)
         CLC   RESPONSE,DFHRESP(NORMAL)
         JNE   ERRORS
*                                       RETURN WITH COMMAREA
         EXEC CICS RETURN TRANSID(EIBTRNID)                          *
               COMMAREA(COMMAREA)                                    *
               LENGTH(13)
*                                       RETURN WITH COMMAREA
TOOLOW   DS    0H
*
*        IF THE START OF FILE IS REACHED ON A "READPREV" (BACKWARD
*        BROWSE) THEN THE "ENDFILE" CONDITION OCCURS AND "TOOLOW"
*        GETS CONTROL. ANY RECORDS READ UP TO THAT POINT ARE DISPLAYED,
*        TOGETHER WITH A HIGHLIGHTED MESSAGE "LO END OF FILE".
*
         MVI   STATUS,C'L'                 SET STATUS 'LO END'
         MVC   RIDF,=C'000000'
         MVC   RIDB,=C'000000'
         MVI   DIRO,X'40'
         MVI   MSG2A,DFHBMASB                                  MSG=BRT
         MVC   MSG2O,=CL(L'MSG2O)'LO END OF FILE'
         EXEC CICS SEND MAP('DFH£AGC') ERASE RESP(RESPONSE)
         CLC   RESPONSE,DFHRESP(NORMAL)
         JNE   ERRORS
*
         EXEC CICS RETURN TRANSID(EIBTRNID)                          *
               COMMAREA(COMMAREA)                                    *
               LENGTH(13)
*****************************************************************
*                              HANDLE GENERAL CONDITIONS          *
*****************************************************************
NOTFOUND DS    0H
*
*        IF THE "NOTFND" CONDITION OCCURS AT THE START BROWSE, THE
*        MESSAGE "END OF FILE - PLEASE RESTART" IS MOVED TO "MESSAGES"
*        FOR DISPLAY ON THE OPERATOR INSTRUCTION SCREEN.
*
```

```
         MVC   MESSAGES,=CL(L'MESSAGES)'END OF FILE - PLEASE RESTART '
         J     AMNU
*
SMSG     DS    0H
*
*        IF THE "CLEAR" KEY IS PRESSED OR WHEN A "MAPFAIL" OCCURS A
*        MESSAGE "PRESS CLEAR TO EXIT" IS MOVED TO "MESSAGES" FOR
*        DISPLAY ON THE OPERATOR INSTRUCTION SCREEN.
*
         MVC   MESSAGES,=CL(L'MESSAGES)'PRESS CLEAR TO EXIT'
         J     AMNU
*
ERRORS   DS    0H
*
*        IN SOME ERROR SITUATIONS A DUMP IS TAKEN AND THE MESSAGE
*        "TRANSACTION TERMINATED" IS MOVED TO "MESSAGES" FOR DISPLAY
*        ON THE OPERATOR INSTRUCTION SCREEN.
*
         EXEC CICS DUMP DUMPCODE('ERRS')
         MVC   MESSAGES,=CL(L'MESSAGES)'TRANSACTION TERMINATED'
*****************************************************************
*                                  DISPLAY GENERAL MENU THEN EXIT     *
*****************************************************************
AMNU     DS    0H
*
*        THIS CODE DISPLAYS THE OPERATOR INSTRUCTION MENU WITH A
*        MESSAGE WHICH HAS BEEN STORED IN "MESSAGES".
*
         XC    DFH£AGAO(DFH£AGAE-DFH£AGAO),DFH£AGAO   CLEAR MAP A
         MVI   MSGA,DFHBMASB                          BRIGHTEN MESSAGE
         MVC   MSGO,MESSAGES                          MOVE MSGS TO MAP
         EXEC CICS SEND MAP('DFH£AGA') ERASE RESP(RESPONSE)
*
*        THE PROGRAM TERMINATES BY RETURNING TO CICS.
*
         EXEC CICS RETURN
*****************************************************************
*                                  DEFINE THE 256 BYTE TRANSLATE TABLE*
*****************************************************************
*                                  FOR LOCATING NON-NUMERIC DIGITS BY
```

```
*                                    MEANS OF THE "TRT" INSTRUCTION
STATR    DS     0D
CHEKTAB  DC      256X'FF'
         ORG     CHEKTAB+X'F0'
         DC      10X'00'
         ORG
         LTORG
         END



1CICS X.X.X COMMAND LANGUAGE TRANSLATOR                                  TIME 20.09 DATE 10 AUG 13   PAGE 1
0OPTIONS USED ARE:-

   CICS
   SPIE
   EDF
   LINECOUNT(60)
   TABLE(DFHEITAB)
   NATLANG(EN)
   OPTIONS
 NOPROLOG
 NOEPILOG
 NOSYSEIB
 NOFEPI
 NOCPSM
   LENGTH
0NO MESSAGES PRODUCED BY TRANSLATOR
0TRANSLATION TIME:-   0.00 MINS.
1                                  High Level Assembler Option Summary                 (PTF UK80712)   Page    1
-                                                                                     HLASM R6.0  2013/08/10 20.09
0  No Overriding ASMAOPT Parameters
   Overriding Parameters-  XOBJECT,,NORENT,XREF(FULL),SIZE(800K),WORKFILE,LIST(MAX),GOFF
   No Process Statements


   Options for this Assembly
0  NOADATA
     ALIGN
   NOASA
   NOBATCH
     CODEPAGE(047C)
   NOCOMPAT
   NODBCS
   NODECK
     DXREF
     ESD
```

```
   NOEXIT
     FLAG(0,ALIGN,NOCONT,EXLITW,NOIMPLEN,NOPAGE0,PUSH,RECORD,NOSUBSTR,USING0)
   NOFOLD
 3   GOFF(NOADATA)
   NOINFO
     LANGUAGE(EN)
   NOLIBMAC
     LINECOUNT(60)
 3   LIST(MAX)
     MACHINE(,NOLIST)
     MXREF(SOURCE)
     OBJECT
     OPTABLE(UNI,NOLIST)
   NOPCONTROL
   NOPESTOP
   NOPROFILE
   NORA2
 3 NORENT
     RLD
     RXREF
     SECTALGN(8)
 3   SIZE(800K)
   NOSUPRWARN
     SYSPARM()
   NOTERM
   NOTEST
     THREAD
   NOTRANSLATE
     TYPECHECK(MAGNITUDE,REGISTER)
     USING(NOLIMIT,MAP,NOWARN)
 3   WORKFILE
 3   XREF(FULL)

   No Overriding DD Names
1                                       External Symbol Dictionary                                  Page    2
-Symbol   Type   Id     Address  Length   Owner Id Flags Alias-of                        HLASM R6.0  2013/08/10 20.09
0DFH£ABRW  SD 00000001
 B_IDRL    ED 00000002                    00000001
 B_PRV     ED 00000003                    00000001
 B_TEXT    ED 00000004 00000000 000009D3  00000001   14
 DFH£ABRW  LD 00000005 00000000           00000004   14
 DFHEAG0   ER 00000006                    00000001
 DFHEG1    ER 00000007                    00000001
1                                                                                                   Page    3
   Active Usings: None
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
0                                              1 *ASM     XOPTS(NOPROLOG NOEPILOG)
                                               2          SYSSTATE AMODE64=YES,ARCHLVL=2
                                               3+*        THE VALUE OF SYSSTATE IS NOW SET TO ASCENV=P AMODE64=YES ARCHLX01-SYSSTATE
                                                +               VL=2 OSREL=00000000
```

```
                                          4 *
                                          5        IEABRCX DEFINE               Use relative branch
                                        324        IEABRCX ENABLE               Use relative branch
                                        349 *
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                      Page    4
   Active Usings: None
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
0                                       351 ********************************************************************************
                                        352 *                                                                              *
                                        353 * MODULE NAME = DFH£ABRW                                                       *
                                        354 *                                                                              *
                                        355 * DESCRIPTIVE NAME = File Browse for Sample Application                        *
                                        356 *                                                                              *
                                        357 *                                                                              *
                                        358 *                                                                              *
                                        359 *     Licensed Materials - Property of IBM                                     *
                                        360 *                                                                              *
                                        361 *     "Restricted Materials of IBM"                                            *
                                        362 *                                                                              *
                                        363 *     5655-Y04                                                                 *
                                        364 *                                                                              *
                                        365 *     (C) Copyright IBM Corp. 1984, 2012"                                      *
                                        366 *                                                                              *
                                        367 *                                                                              *
                                        368 *                                                                              *
                                        369 *                                                                              *
                                        370 * STATUS = 6.8.0                                                              *
                                        371 *                                                                              *
                                        372 *------------------------------------------------------------------------------*
                                        373 *                                                                              *
                                        374 * CHANGE ACTIVITY :                                                            *
                                        375 * £SEG(DFH£ABRW),COMP(SAMPLES),PROD(CICS TS ):                                *
                                        376 *                                                                              *
                                        377 *     PN= REASON REL YYMMDD HDXIII : REMARKS                                   *
                                        378 *    £P0= Mnnnnn 170 840717 HDZZUNK: Created.                                  *
                                        379 *    £P1= M90474 330 910807 HDBWSH : Prologue fixed.                           *
                                        380 *         R31410 680 120411 HDFVGMB: Story 30827 - AMODE 64 RMODE 31           *
                                        381 *                                                                              *
                                        382 ********************************************************************************
                                        383          DFHEIGBL ,,,NOLE          INSERTED BY TRANSLATOR
                                        384+*,&DFHEIDL SETB 0  1 MEANS EXEC DLI IN PROGRAM                          01-DFHEIGBL
                                        385+*,&DFHEIDB SETB 0  1 MEANS BATCH PROGRAM                               01-DFHEIGBL
                                        386+*,&DFHEIRS SETB 0  1 MEANS RSECT                                       01-DFHEIGBL
                                        387+*,&DFHEILE SETB 0  1 MEANS LE MAIN                                     01-DFHEIGBL
                                        388          DFHEISTG DSECT
 00000000                    00000000 0000042E      390+DFHEISTG DSECT                    EXEC Interface Storage      @R31410A 01-DFHEISTG
                          R:D 00000000              391+         USING *,DFHEIPLR         Establish Addressability    @R31410A 01-DFHEISTG
 00000000                                           392+DFHEISA  DS    18FD               F4SA                        @R31410A 01-DFHEISTG
 00000090                                           393+DFHEIBP  DS    AD                 EIB pointer                 @R31410A 01-DFHEISTG
 00000098                                           394+DFHEICAP DS    AD                 COMMAREA pointer            @R31410A 01-DFHEISTG
```

```
 000000A0                               395+DFHEIR13 DS    AD                  Register 13                @R31410A 01-DFHEISTG
 000000A8                               396+DFHEIVER DS    H                   Version                    @R31410A 01-DFHEISTG
 000000AA                               397+DFHEIV00 DS    H                   Used by DFHECALL           @R31410A 01-DFHEISTG
 000000AC                               398+DFHEIRS3 DS    F                   Used by DFHECALL           @R31410A 01-DFHEISTG
 000000B0                               399+DFHEIPL  DS    64A                 Parameter list             @R31410A 01-DFHEISTG
 000001B0                               400+DFHEITP1 DS    A                   Used by DFHECALL           @R31410A 01-DFHEISTG
 000001B4                               401+DFHEITP2 DS    A                   Used by DFHECALL           @R31410A 01-DFHEISTG
 000001B8                               402+DFHEITP3 DS    A                   Used by DFHECALL           @R31410A 01-DFHEISTG
 000001BC                               403+DFHEITP4 DS    A                   Used by DFHECALL           @R31410A 01-DFHEISTG
 000001C0                               404+DFHEITG1 DS    AD                  Used by DFHECALL           @R31410A 01-DFHEISTG
 000001C8                               405+DFHEITG2 DS    AD                  Used by DFHECALL           @R31410A 01-DFHEISTG
 000001D0                               406+DFHEITG3 DS    AD                  Used by DFHECALL           @R31410A 01-DFHEISTG
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                                Page    5
   Active Usings: DFHEISTG,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                      HLASM R6.0  2013/08/10 20.09
0000001D8                              407+DFHEITG4 DS    AD                  Used by DFHECALL           @R31410A 01-DFHEISTG
 000001E0                              408+         DS    4FD                 Reserved                   @R31410A 01-DFHEISTG
                                       409+*************************************************************************
                                       410+*              Start Definition of User Dynamic Storage                 *
                                       411+*************************************************************************
 00000200                              412+DFHEIUSR DS    0X                  Quadword aligned           @R31410A 01-DFHEISTG
                                       413+*
 00000200                              414 HEXZERO  DS    X'00'                     CONSTANT FOR CLEARING MAPS
 00000201                              415 COMMAREA DS    0CL13
 00000201                              416 STATUS   DS    CL1         FILE STATUS - HI OR LO END OR NORMAL (H/L/N)
 00000202                              417 KEYS     DS    0CL12
 00000202                              418 RIDB     DS    CL6                       TO BUILD PREV BACK PAGE
 00000208                              419 RIDF     DS    CL6                       TO BUILD NEXT FWD PAGE
 0000020E                              420 MESSAGES DS    CL80
 00000260                              421 RESPONSE DS    F                         RESPONSES TO CICS COMMANDS
                     00000004          422 COMPTR   EQU   4
                     00000003          423 R3       EQU   3                         Reserved - used by DFHEIENT
                     00000005          424 R5       EQU   5
                                       425 *
                                       426          COPY  DFHBMSCA                  STANDARD BMS ATTRIBUTES
                                       427=*/*************************************************************************/ 00000100
                                       428=*/*                                                                       */ 00000200
                                       429=*/*                                                                       */ 00000800
                                       430=*/*                                                                       */ 00000900
                                       431=*/*      Licensed Materials - Property of IBM                             */ 00001000
                                       432=*/*                                                                       */ 00001100
                                       433=*/*      "Restricted Materials of IBM"                                    */ 00001200
                                       434=*/*                                                                       */ 00001300
                                       435=*/*      5655-Y04                                                         */ 00001400
                                       436=*/*                                                                       */ 00001500
                                       437=*/*      (C) Copyright IBM Corp. 1990, 1996"                              */ 00001600
                                       438=*/*                                                                       */ 00001700
                                       439=*/*                                                                       */ 00001900
                                       440=*/*                                                                       */ 00002000
                                       441=*/*                                                                       */ 00002200
```

```
                                       442=*/*                                                                 */ 00002300
                                       443=*/*MODULE NAME = DFHBMSCA                                           */ 00002400
                                       444=*/*                                                                 */ 00002500
                                       445=*/*DESCRIPTIVE NAME = CICS TS     BMS CONSTANTS                     */ 00002600
                                       446=*/*                                                                 */ 00002700
                                       447=*/*                                                                 */ 00002800
                                       448=*/*STATUS = %XB10                                                   */ 00002900
                                       449=*/*                                                                 */ 00003000
                                       450=*/*FUNCTION = DEFINE CONSTANTS FOR SETTING AND TESTING MAP           */ 00003100
                                       451=*/*           FIELD AND TEXT DATA                                   */ 00003200
                                       452=*/*                                                                 */ 00003300
                                       453=*/*                                                                 */ 00003400
                                       454=*/*                                                                 */ 00003500
                                       455=*/*CHANGE ACTIVITY :                                                */ 00003600
                                       456=*/* £SEG(DFHBMSCA),COMP(BMS),PROD(CICS TS )   :                     */ 00003700
                                       457=*/*                                                                 */ 00003800
                                       458=*/*  PN= REASON REL YYMMDD HDXIII : REMARKS                         */ 00003900
                                       459=*/* £D1  RESERVED FOR DCR                                           */ 00004000
                                       460=*/* £D2  RESERVED FOR DCR                                           */ 00004100
                                       461=*/* £D3  RESERVED FOR DCR                                           */ 00004200
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                          Page    6
   Active Usings: DFHEISTG,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                          HLASM R6.0  2013/08/10 20.09
0                                      462=*/* £H1  RESERVED FOR HARDWARE SUPPORT                              */ 00004300
                                       463=*/* £H2  RESERVED FOR HARDWARE SUPPORT                              */ 00004400
                                       464=*/* £H3  RESERVED FOR HARDWARE SUPPORT                              */ 00004500
                                       465=*/* £L1  RESERVED FOR LINE ITEM                                     */ 00004600
                                       466=*/* £L2  RESERVED FOR LINE ITEM                                     */ 00004700
                                       467=*/* £L3  RESERVED FOR LINE ITEM                                     */ 00004800
                                       468=*/* £L4  RESERVED FOR LINE ITEM                                     */ 00004900
                                       469=*/* £L5  RESERVED FOR LINE ITEM                                     */ 00005000
                                       470=*/* £L6  RESERVED FOR LINE ITEM                                     */ 00005100
                                       471=*/* £P1= M61532 320 900330 HD6HBH : Add BMCUR field                 */ 00005200
                                       472=*/*  £01= A67669 410 950216 HDCWNRB : Migrate PN67669 from SPA R410 */ 00005300
                                       473=*/*  £02= A80826 410 960304 HDBGNRB : Migrate PN80826 from SPA R410 */ 00005400
                                       474=*/* £L1= R942   670 090929 HDJTIMH: Fix untranslatable characters  */ 00005500
                                       475=*/* £L2= R05987 670 100507 HDJTIMH: Remove all embedded control chr*/ 00005600
                                       476=*/* £P2= M61784 320 900420 HD7ETL : Split declare in two           */ 00005700
                                       477=*/* £P3= M62154 320 900601 HDMMFM : CHANGE CURSLOC ATtR TO 02 BIT  */ 00005800
                                       478=*/* £P4= M90344 330 910628 HD7OPW : Define FF and CR characters    */ 00005900
                                       479=*/* £P5= M81072 410 920707 HD9CTG : Restore DFHBMSCA copybooks to LCS*/ 00006000
                                       480=*/* £P6= D27045 670 090917 HDJTIMH: Fix untranslatable NewLine char*/ 00006100
                                       481=*/*                                                                 */ 00006200
                                       482=*/*****************************************************************/ 00006300
                                       483=* DECLARE                                                          00006400
                                       484=*           (DFHBMPEM CHAR (1) INIT ('19'X)/* PRINTER EOM       @L2C*/ 00006500
                                       485=*           ,DFHBMPNL CHAR (1) INIT ('15'X)/* PRINTER NL           */ 00006600
                                       486=*           ,DFHBMPFF CHAR (1) INIT ('0C'X)/* PRINTER FF        @L2C*/ 00006700
                                       487=*           ,DFHBMPCR CHAR (1) INIT ('0D'X)/* PRINTER CR        @L2C*/ 00006800
                                       488=*           ,DFHBMASK CHAR (1) INIT ('0')  /* AUTO SKIP           */ 00006900
```

```
                                                489=*           ,DFHBMUNP CHAR (1) INIT (' ')  /* UNPROTECTED            */ 00007000
                                                490=*           ,DFHBMUNN CHAR (1) INIT ('&')  /* UNPROT + NUM           */ 00007100
                                                491=*           ,DFHBMPRO CHAR (1) INIT ('-')  /* PROTECTED              */ 00007200
                                                492=*           ,DFHBMBRY CHAR (1) INIT ('H')  /* BRIGHT                 */ 00007300
                                                493=*           ,DFHBMDAR CHAR (1) INIT ('<')  /* DARK                   */ 00007400
                                                494=*           ,DFHBMFSE CHAR (1) INIT ('A')  /* MDT SET                */ 00007500
                                                495=*           ,DFHBMPRF CHAR (1) INIT ('/')  /* PROT + MDT SET         */ 00007600
                                                496=*           ,DFHBMASF CHAR (1) INIT ('1')  /* ASKP+MDT               */ 00007700
                                                497=*           ,DFHBMASB CHAR (1) INIT ('8')  /* AUTO + BRIGHT          */ 00007800
                                                498=*           ,DFHBMPSO CHAR (1) INIT ('0E'X)/* SHIFT OUT          @L2C*/ 00007900
                                                499=*           ,DFHBMPSI CHAR (1) INIT ('0F'X)/* SHIFT IN           @L2C*/ 00008000
                                                500=*/*  FIELD FLAG VALUE SET BY INPUT MAPPING                       */ 00008100
                                                501=*           ,DFHBMEOF CHAR (1) INIT ('80'X)/* FIELD ERASED       @L2C*/ 00008200
                                                502=*           ,DFHBMCUR CHAR (1) INIT ('02'X)/* CURSOR IN FIELD    @L2C*/ 00008300
                                                503=*/*  FIELD DATA VALUE SET BY INPUT MAPPING                       */ 00008400
                                                504=*           ,DFHBMDET CHAR (1) INIT ('FF'X)/* FIELD DETECTED     @L2C*/ 00008500
                                                505=*/*  CODE FOR SA ORDER                                           */ 00008600
                                                506=*           ,DFHSA    CHAR (1) INIT ('28'X)/* SA ORDER (X'28')   @L2C*/ 00008700
                                                507=*/*  CODE FOR ERROR CODE                                         */ 00008800
                                                508=*           ,DFHERROR CHAR (1) INIT ('3F'X)/* ERROR CODE-X'3F'   @L2C*/ 00008900
                                                509=*/*  EXTENDED ATTRIBUTE TYPE CODES                               */ 00009000
                                                510=*           ,DFHCOLOR CHAR (1) INIT ('42'X)/* COLOR    (X'42')   @L2C*/ 00009100
                                                511=*           ,DFHPS    CHAR (1) INIT ('43'X)/* PS       (X'43')   @L2C*/ 00009200
                                                512=*           ,DFHHLT   CHAR (1) INIT ('41'X)/* HIGHLIGHT(X'41')   @L2C*/ 00009300
                                                513=*           ,DFH3270  CHAR (1) INIT ('C0'X)/* 3270     (X'C0')   @L2C*/ 00009400
                                                514=*           ,DFHVAL   CHAR (1) INIT ('A')  /* VALIDT'N (X'C1')       */ 00009500
                                                515=*           ,DFHOUTLN CHAR (1) INIT ('B')  /* OUTLINE                */ 00009600
                                                516=*           ,DFHBKTRN CHAR (1) INIT ('46'X)/* BACKGROUND         @L2C*/ 00009700
```



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0                                               517=*                                  /* TRANSP   (X'46')       */ 00009800
                                                518=*           ,DFHALL   CHAR (1) INIT ('00'X)/* ALL , RESET TO     @L2C*/ 00009900
                                                519=*                                  /* DEFAULT  (X'00')       */ 00010000
                                                520=*/*  DEFAULT ATTRIBUTE CODE  - TO SET ATTRIBUTES IN MAPS         */ 00010100
                                                521=*           ,DFHDFT   CHAR (1) INIT ('FF'X)/* DEFAULT  (X'FF')   @L2C*/ 00010200
                                                522=*       ) STATIC INTERNAL;                                 /*@P2C*/ 00010300
                                                523=* DECLARE                                                  /*@P2C*/ 00010400
                                                524=*/*  COLOR ATTRIBUTE VALUES                                      */ 00010500
                                                525=*           (DFHDFCOL CHAR (1) INIT ('00'X)/* DEFAULT            @L2C*/ 00010600
                                                526=*           ,DFHBLUE  CHAR (1) INIT ('1')  /* BLUE                   */ 00010700
                                                527=*           ,DFHRED   CHAR (1) INIT ('2')  /* RED                    */ 00010800
                                                528=*           ,DFHPINK  CHAR (1) INIT ('3')  /* PINK                   */ 00010900
                                                529=*           ,DFHGREEN CHAR (1) INIT ('4')  /* GREEN                  */ 00011000
                                                530=*           ,DFHTURQ  CHAR (1) INIT ('5')  /* TURQUOISE              */ 00011100
                                                531=*           ,DFHYELLO CHAR (1) INIT ('6')  /* YELLOW                 */ 00011200
                                                532=*           ,DFHNEUTR CHAR (1) INIT ('7')  /* NEUTRAL                */ 00011300
                                                533=*/*  BASE PS  ATTRIBUTE VALUE                                    */ 00011400
                                                534=*           ,DFHBASE  CHAR (1) INIT ('00'X)/* BASE PS            @L2C*/ 00011500
                                                535=*/*  HIGHLIGHT ATTRIBUTE VALUES                                  */ 00011600
```

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                                        536=*           ,DFHDFHI  CHAR (1) INIT ('00'X)/* NORMAL             @L2C*/ 00011700
                                        537=*           ,DFHBLINK CHAR (1) INIT ('1')  /* BLINK                  */ 00011800
                                        538=*           ,DFHREVRS CHAR (1) INIT ('2')  /* REVERSE VIDEO          */ 00011900
                                        539=*           ,DFHUNDLN CHAR (1) INIT ('4')  /* UNDERSCORE             */ 00012000
                                        540=*/*  VALIDATION ATTRIBUTE VALUES                                        */ 00012100
                                        541=*           ,DFHMFIL  CHAR (1) INIT ('04'X)/* MANDATORY FILL     @L2C*/ 00012200
                                        542=*           ,DFHMENT  CHAR (1) INIT ('02'X)/* MANDATORY ENTER    @L2C*/ 00012300
                                        543=*           ,DFHMFE   CHAR (1) INIT ('06'X)/* MANDATORY FILL+    @L2C*/ 00012400
                                        544=*                                          /*  MANDATORY ENTER       */ 00012500
                                        545=*/*  ADDITIONAL ATTRIBUTES                                              */ 00012600
                                        546=*           ,DFHUNNOD CHAR (1) INIT ('(')  /* UNPROTECTED            */ 00012700
                                        547=*                                          /* NON-DISPLAY            */ 00012800
                                        548=*                                          /* NON-PRINT              */ 00012900
                                        549=*                                          /* NON-DETECTABLE         */ 00013000
                                        550=*                                          /* MDT                    */ 00013100
                                        551=*                                                                     00013200
                                        552=*           ,DFHUNIMD CHAR (1) INIT ('I')  /* UNPROTECTED            */ 00013300
                                        553=*                                          /* INTENSIFY              */ 00013400
                                        554=*                                          /* LIGHT PEN DET.         */ 00013500
                                        555=*                                          /* MDT                    */ 00013600
                                        556=*                                                                     00013700
                                        557=*           ,DFHUNNUM CHAR (1) INIT ('J')  /* UNPROTECTED            */ 00013800
                                        558=*                                          /* NUMERIC                */ 00013900
                                        559=*                                          /* MDT                    */ 00014000
                                        560=*                                                                     00014100
                                        561=*           ,DFHUNNUB CHAR (1) INIT ('Q')  /* UNPROTECTED        @01A*/ 00014200
                                        562=*                                          /* NUMERIC            @01A*/ 00014300
                                        563=*                                          /* INTENSIFY          @01A*/ 00014400
                                        564=*                                          /* LIGHT PEN DET.     @01A*/ 00014500
                                        565=*                                          /*                    @01A*/ 00014600
                                        566=*           ,DFHUNINT CHAR (1) INIT ('R')  /* UNPROTECTED            */ 00014700
                                        567=*                                          /* NUMERIC                */ 00014800
                                        568=*                                          /* INTENSIFY              */ 00014900
                                        569=*                                          /* LIGHT PEN DET.         */ 00015000
                                        570=*                                          /* MDT                    */ 00015100
                                        571=*                                                                     00015200
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                                Page    8
   Active Usings: DFHEISTG,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                          HLASM R6.0  2013/08/10 20.09
0                                       572=*           ,DFHUNNON CHAR (1) INIT (')')  /* UNPROTECTED            */ 00015300
                                        573=*                                          /* NUMERIC                */ 00015400
                                        574=*                                          /* NON-DISPLAY            */ 00015500
                                        575=*                                          /* NON-PRINT              */ 00015600
                                        576=*                                          /* NON-DETECTABLE         */ 00015700
                                        577=*                                          /* MDT                    */ 00015800
                                        578=*                                                                     00015900
                                        579=*           ,DFHPROTI CHAR (1) INIT ('Y')  /* PROTECTED              */ 00016000
                                        580=*                                          /* INTENSIFY              */ 00016100
                                        581=*                                          /* LIGHT PEN DET.         */ 00016200
                                        582=*                                                                     00016300
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                                  583=*           ,DFHPROTN CHAR (1) INIT ('%')  /* PROTECTED              */ 00016400
                                  584=*                                          /* NON-DISPLAY            */ 00016500
                                  585=*                                          /* NON-PRINT              */ 00016600
                                  586=*                                          /* NON-DETECTABLE         */ 00016700
                                  587=*           ,DFHMT    CHAR (1) INIT ('01'X)/* TRIGGER            @L2C*/ 00016800
                                  588=*           ,DFHMFT   CHAR (1) INIT ('05'X)/* MANDATORY FILL+    @L2C*/ 00016900
                                  589=*                                          /* TRIGGER                */ 00017000
                                  590=*           ,DFHMET   CHAR (1) INIT ('03'X)/* MANDATORY ENTER+   @L2C*/ 00017100
                                  591=*                                          /* TRIGGER                */ 00017200
                                  592=*           ,DFHMFET  CHAR (1) INIT ('07'X)/* MANDATORY FILL+    @L2C*/ 00017300
                                  593=*                                          /* MANDATORY ENTER+       */ 00017400
                                  594=*                                          /* TRIGGER                */ 00017500
                                  595=*       ) STATIC INTERNAL;                                /* @P1C*/ 00017600
                                  596=* DECLARE                                                            00017700
                                  597=*/*  FIELD OUTLINING ATTRIBUTE CODES       KJ0001                 */ 00017800
                                  598=*           (DFHDFFR  CHAR (1) INIT ('00'X)/* DEFAULT OUTLINE    @L2C*/ 00017900
                                  599=*           ,DFHLEFT  CHAR (1) INIT ('08'X)/* LEFT               @L2C*/ 00018000
                                  600=*           ,DFHOVER  CHAR (1) INIT ('04'X)/* OVERLINE           @L2C*/ 00018100
                                  601=*           ,DFHRIGHT CHAR (1) INIT ('02'X)/* RIGHT              @L2C*/ 00018200
                                  602=*           ,DFHUNDER CHAR (1) INIT ('01'X)/* UNDER              @L2C*/ 00018300
                                  603=*           ,DFHBOX   CHAR (1) INIT ('0F'X)/* LEFT+OVER+RIGHT+   @L2C*/ 00018400
                                  604=*                                          /* UNDER LINES            */ 00018500
                                  605=*/*  SOSI ATTRIBUTE CODES                                           */ 00018600
                                  606=*           ,DFHSOSI  CHAR (1) INIT ('01'X)/* SOSI = YES         @L2C*/ 00018700
                                  607=*/*  BACKGROUND TRANSPARENCY ATTRIBUTE CODES                        */ 00018800
                                  608=*           ,DFHTRANS CHAR (1) INIT ('0')  /* TRANSP = YES           */ 00018900
                                  609=*           ,DFHOPAQ  CHAR (1) INIT ('FF'X)/* TRANSP = NO        @L2C*/ 00019000
                                  610=*       ) STATIC INTERNAL;                                /* @P1C*/ 00019100
                                  611=*/*************************************************************/ 00019200
                                  612=*/*                  END OF ATTRIBUTES LIST                   */ 00019300
                                  613=*/*************************************************************/ 00019400
                                  614=*/*                                                             00019500
                                  615=*********************************************************************** 00019600
                                  616=* Start of assembler section                                    * 00019700
                                  617=*********************************************************************** 00019800
-                                 619=* DFHBMSCA                                                        00020000
                                  620=*                                                               00020100
                                  621=* STANDARD ATTRIBUTE COMBINATION.                               00020200
                                  622=*                                                               00020300
                                  623=* NAME         PSEUDO VALUE            ATTRIBUTES             00020400
0                     00000019    625=DFHBMPEM EQU   X'19'               PRINTER END OF MESSAGE.        @L2C 00020600
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                  Page    9
   Active Usings: DFHEISTG,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                HLASM R6.0  2013/08/10 20.09
0                     00000015    627=DFHBMPNL EQU   X'15'               PRINTER NEW LINE.              @P6C 00020800
0                     0000000C    629=DFHBMPFF EQU   X'0C'               PRINTER FORM FEED              @L2C 00021000
0                     0000000D    631=DFHBMPCR EQU   X'0D'               PRINTER CARRIAGE RETURN        @L2C 00021200
0                     000000F0    633=DFHBMASK EQU   C'0'                AUTO SKIP                           00021400
0                     00000040    635=DFHBMUNP EQU   C' '                UNPROTECTED                         00021600
0                     00000050    637=DFHBMUNN EQU   C'&&'               UNPROTECTED + NUMERIC               00021800
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0                       00000060             639=DFHBMPRO EQU   C'-'               PROTECTED                              00022000
0                       000000C8             641=DFHBMBRY EQU   C'H'               HIGH INTENSITY                         00022200
0                       0000004C             643=DFHBMDAR EQU   C'<'               ZERO INTENSITY NON-PRINT               00022400
0                       000000C1             645=DFHBMFSE EQU   C'A'               MDT SET                                00022600
0                       00000061             647=DFHBMPRF EQU   C'/'               PROTECTED + MDT SET.                   00022800
0                       000000F1             649=DFHBMASF EQU   C'1'               AUTOSKIP + MDT SET.                    00023000
0                       000000F8             651=DFHBMASB EQU   C'8'               AUTOSKIP + HIGH INTENSITY.             00023200
0                       0000000E             653=DFHBMPSO EQU   X'0E'              SHIFT OUT VALUE X'0E'          @02C 00023400
0                       0000000F             655=DFHBMPSI EQU   X'0F'              SHIFT IN VALUE X'0F'           @02C 00023600
0                                            657=*                                                                       00023800
                                             658=* FIELD FLAG BYTE SETTINGS FROM INPUT MAPPING                            00023900
                                             659=*                                                                       00024000
0                       00000080             661=DFHBMEOF EQU   X'80'              FIELD ERASED                           00024200
0                       00000002             663=DFHBMCUR EQU   X'02'              CURSOR IN FIELD                        00024400
0                                            665=*                                                                       00024600
                                             666=* FIRST FIELD DATA BYTE SETTING                                          00024700
                                             667=*                                                                       00024800
0                       000000FF             669=DFHBMDET EQU   X'FF'              FIELD LIGHT PEN DETECTED               00025000
0                                            671=*                                                                       00025200
                                             672=* CODE FOR SA (SET ATTRIBUTE) ORDER                                      00025300
                                             673=*                                                                       00025400
0                       00000028             675=DFHSA    EQU   X'28'              SET ATTRIBUTE ORDER                    00025600
0                                            677=*                                                                       00025800
                                             678=* EXTENDED ATTRIBUTE TYPE CODES                                          00025900
                                             679=*                                                                       00026000
                                             680=*                                                                       00026100
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                          Page   10
   Active Usings: DFHEISTG,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                      HLASM R6.0  2013/08/10 20.09
0                       00000042             682=DFHCOLOR EQU   X'42'              COLOR ATTRIBUTE CODE                   00026300
0                       00000043             684=DFHPS    EQU   X'43'              PS  ATTRIBUTE TYPE CODE                00026500
0                       00000041             686=DFHHLT   EQU   X'41'              HIGHLIGHT ATTRIBUTE CODE               00026700
0                       000000C0             688=DFH3270  EQU   X'C0'              3270 FIELD ATTRIBUTE CODE              00026900
0                       000000C1             690=DFHVAL   EQU   X'C1'              VALIDATION ATTRIBUTE CODE              00027100
0                       000000C2             692=DFHOUTLN EQU   X'C2'              FIELD OUTLINING ATTRE CODE             00027300
0                       00000046             694=DFHBKTRN EQU   X'46'              BACKGROUND TRANSP ATTR CODE            00027500
0                       00000000             696=DFHALL   EQU   X'00'              ALL CHARACTER ATTRS - RESET TO        *00027700
                                                =                                  DEFAULT ONLY                           00027800
0                                            698=*                                                                       00028000
                                             699=*   ERROR CODE (X'3F')                                                  00028100
                                             700=*                                                                       00028200
                        0000003F             701=DFHERROR EQU   X'3F'              ERROR CHARACTER                        00028300
                                             702=*                                                                       00028400
                                             703=*  DEFAULT ATTRIBUTE VALUE (FOR SETTING ATTRIBUTES IN MAPS              00028500
                                             704=*                                                                       00028600
0                       000000FF             706=DFHDFT   EQU   X'FF'              DEFAULT VALUE                          00028800
0                                            708=*                                                                       00029000
                                             709=*  COLOR ATTRIBUTE VALUES                                               00029100
                                             710=*                                                                       00029200
                                             711=*                                                                       00029300
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0                       00000000             713=DFHDFCOL EQU   X'00'              DEFAULT COLOR                          00029500
0                       000000F1             715=DFHBLUE  EQU   C'1'              BLUE                                   00029700
0                       000000F2             717=DFHRED   EQU   C'2'              RED                                    00029900
0                       000000F3             719=DFHPINK  EQU   C'3'              PINK                                   00030100
0                       000000F4             721=DFHGREEN EQU   C'4'              GREEN                                  00030300
0                       000000F5             723=DFHTURQ  EQU   C'5'              TURQUOISE                              00030500
0                       000000F6             725=DFHYELLO EQU   C'6'              YELLOW                                 00030700
0                       000000F7             727=DFHNEUTR EQU   C'7'              NEUTRAL                                00030900
0                                            729=*                                                                       00031100
                                             730=*   BASE PS  ATTRIBUTE CODE                                             00031200
                                             731=*                                                                       00031300
0                       00000000             733=DFHBASE  EQU   X'00'             BASE PS                                00031500
0                                            735=*                                                                       00031700
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                                 Page   11
   Active Usings: DFHEISTG,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                    HLASM R6.0  2013/08/10 20.09
0                                            736=*   HIGHLIGHT ATTRIBUTE CODES                                           00031800
                                             737=*                                                                       00031900
0                       00000000             739=DFHDFHI  EQU   X'00'             DEFAULT HIGHLIGHT                      00032100
0                       000000F1             741=DFHBLINK EQU   C'1'              BLINK                                  00032300
0                       000000F2             743=DFHREVRS EQU   C'2'              REVERSE VIDEO                          00032500
0                       000000F4             745=DFHUNDLN EQU   C'4'              UNDERSCORE                             00032700
0                                            747=*                                                                       00032900
                                             748=*  VALIDATION ATTRIBUTE CODES                                           00033000
                                             749=*                                                                       00033100
                        00000004             750=DFHMFIL  EQU   X'04'             MANDATORY FILL                         00033200
0                       00000002             752=DFHMENT  EQU   X'02'             MANDATORY ENTER                        00033400
0                       00000006             754=DFHMFE   EQU   X'06'             MANDATORY FILL +                      *00033600
                                                =                                MANDATORY ENTER                        00033700
0                       00000001             756=DFHMT    EQU   X'01'             TRIGGER                                00033900
0                       00000005             758=DFHMFT   EQU   X'05'             MANDATORY FILL + TRIGGER               00034100
0                       00000003             760=DFHMET   EQU   X'03'             MANDATORY ENTER + TRIGGER              00034300
0                                            762=*                                                                       00034500
                                             763=*   ADDITIONAL ATTRIBUTES                                               00034600
                                             764=*                                                                       00034700
0                       0000004D             766=DFHUNNOD EQU   X'4D'             UNPROTECTED                            00034900
                                             767=*                                NON-DISPLAY                            00035000
                                             768=*                                NON-PRINT                              00035100
                                             769=*                                NON-DETECTABLE                         00035200
                                             770=*                                MDT                                    00035300
0                       000000C9             772=DFHUNIMD EQU   X'C9'             UNPROTECTED                            00035500
                                             773=*                                INTENSIFY,LIGHT PEN DET                00035600
                                             774=*                                MDT                                    00035700
0                       000000D1             776=DFHUNNUM EQU   X'D1'             UNPROTECTED,NUMERIC                    00035900
                                             777=*                                MDT                                    00036000
0                       000000D8             779=DFHUNNUB EQU   X'D8'             UNPROTECTED,NUMERIC          @01A      00036200
                                             780=*                                INTENSIFY,LIGHT PEN DET      @01A      00036300
0                       000000D9             782=DFHUNINT EQU   X'D9'             UNPROTECTED,NUMERIC                    00036500
                                             783=*                                INTENSIFY,LIGHT PEN DET                00036600
                                             784=*                                MDT                                    00036700
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0                       0000005D            786=DFHUNNON EQU   X'5D'              UNPROTECTED,NUMERIC                   00036900
                                            787=*                                 NON-DISPLAY                           00037000
                                            788=*                                 NON-PRINT                             00037100
                                            789=*                                 NON-DETECTABLE                        00037200
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                                  Page   12
   Active Usings: DFHEISTG,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                      HLASM R6.0  2013/08/10 20.09
0                                           790=*                                 MDT                                   00037300
0                       000000E8            792=DFHPROTI EQU   X'E8'              PROTECTED                             00037500
                                            793=*                                 INTENSIFY,LIGHT PEN DET               00037600
0                       0000006C            795=DFHPROTN EQU   X'6C'              PROTECTED                             00037800
                                            796=*                                 NON-DISPLAY                           00037900
                                            797=*                                 NON-PRINT                             00038000
                                            798=*                                 NON-DETECTABLE                        00038100
0                       00000007            800=DFHMFET  EQU   X'07'              MANDATORY FILL +                     *00038300
                                               =                                  MANDATORY ENTER + TRIGGER             00038400
0                                           802=*                                                                       00038600
                                            803=*  FIELD OUTLINING ATTRIBUTE CODES                                      00038700
                                            804=*                                                                       00038800
                        00000000            805=DFHDFFR  EQU   X'00'              DEFAULT OUTLINING                     00038900
0                       00000001            807=DFHUNDER EQU   X'01'              UNDERLINE                             00039100
0                       00000002            809=DFHRIGHT EQU   X'02'              RIGHT VERTICAL LINE                   00039300
0                       00000004            811=DFHOVER  EQU   X'04'              OVERLINE                              00039500
0                       00000008            813=DFHLEFT  EQU   X'08'              LEFT VERTICAL LINE                    00039700
0                       0000000F            815=DFHBOX   EQU   X'0F'              UNDER + RIGHT + OVER + LEFT           00039900
0                                           817=*                                                                       00040100
                                            818=*  SOSI ATTRIBUTE CODE                                                  00040200
                                            819=*                                                                       00040300
0                       00000001            821=DFHSOSI  EQU   X'01'              SOSI=YES                              00040500
                                            822=*                                                                       00040600
                                            823=*  BACKGROUND TRANSPARENCY ATTRIBUTE CODES                              00040700
                                            824=*                                                                       00040800
                        000000F0            825=DFHTRANS EQU   X'F0'              TRANSPARENCY = YES                    00040900
                        000000FF            826=DFHOPAQ  EQU   X'FF'              TRANSPARENCY=NO (OPAQUE)              00041000
0                                           828=*                                                                       00041200
                                            829=*  END OF ATTRIBUTE LISTS                                               00041300
                                            830=*                                                                       00041400
                                            831=**/                                                                     00041500
                                            832          COPY  DFH£AFIL                    FILEA RECORD DESCRIPTION
                                            833=*************************************************************************
                                            834=*                                                                      *
                                            835=* MODULE NAME = DFH£AFIL                                               *
                                            836=*                                                                      *
                                            837=* DESCRIPTIVE NAME = File layout for Sample Application               *
                                            838=*                                                                      *
                                            839=*                                                                      *
                                            840=*                                                                      *
                                            841=*     Licensed Materials - Property of IBM                             *
                                            842=*                                                                      *
                                            843=*     "Restricted Materials of IBM"                                    *
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   Active Usings: DFHEISTG,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                          HLASM R6.0  2013/08/10 20.09
0                                              844=*                                                                 *
                                               845=*     5655-Y04                                                    *
                                               846=*                                                                 *
                                               847=*     (C) Copyright IBM Corp. 1984, 1991"                         *
                                               848=*                                                                 *
                                               849=*                                                                 *
                                               850=*                                                                 *
                                               851=*                                                                 *
                                               852=* STATUS = 6.8.0                                                   *
                                               853=*                                                                 *
                                               854=*-----------------------------------------------------------------*
                                               855=*                                                                 *
                                               856=* CHANGE ACTIVITY :                                               *
                                               857=* £SEG(DFH£AFIL),COMP(SAMPLES),PROD(CICS TS ):                     *
                                               858=*                                                                 *
                                               859=*     PN= REASON REL YYMMDD HDXIII : REMARKS                      *
                                               860=*    £P0= Mnnnnn 170 840717 HDZZUNK: Created.                     *
                                               861=*    £P1= M90474 330 910807 HDBWSH : Prologue fixed.              *
                                               862=*                                                                 *
                                               863=*****************************************************************
 00000264                                      864=FILEA    DS    0CL80
 00000264                                      865=FILEREC  DS    0CL80
 00000264                                      866=STAT     DS    CL1
 00000265                                      867=NUMB     DS    CL6
 0000026B                                      868=NAME     DS    CL20
 0000027F                                      869=ADDRX    DS    CL20
 00000293                                      870=PHONE    DS    CL8
 0000029B                                      871=DATEX    DS    CL8
 000002A3                                      872=AMOUNT   DS    CL8
 000002AB                                      873=COMMENT  DS    CL9
                                               874          COPY  DFH£AGA                      'GENERAL MENU' MAP
                                               875=*
                                               876=*    @BANNER_START@                        02
                                               877=*
                                               878=*    Licensed Materials - Property of IBM
                                               879=*
                                               880=*    "Restricted Materials of IBM"
                                               881=*
                                               882=*    5655-S97
                                               883=*
                                               884=*    (C) Copyright IBM Corp. 1984, 2001
                                               885=*
                                               886=*    @BANNER_END@
                                               887=*
 000002B4                                      888=             DS    0H                ENSURE ALIGNMENT
                      000002B4                 889=DFH£AGAS  EQU  *      .             START OF MAP DEFINITION
 000002B4                                      890=         DS    12C .            TIOA PREFIX
```

```
0000002C0                               892=MSGL DS    CL2 .  INPUT DATA FIELD LEN
 000002C2                               893=MSGF DS    0C .   DATA FIELD FLAG
 000002C2                               894=MSGA DS    C .    DATA FIELD ATTRIBUTE
 000002C3                               895=MSGI DS    0CL39 .  INPUT DATA FIELD
 000002C3                               896=MSGO DS    CL39 .   OUTPUT DATA FIELD
0000002EA                               898=KEYL DS    CL2 .  INPUT DATA FIELD LEN
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                    Page   14
   Active Usings: DFHEISTG,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                    HLASM R6.0  2013/08/10 20.09
0000002EC                               899=KEYF DS    0C .   DATA FIELD FLAG
 000002EC                               900=KEYA DS    C .    DATA FIELD ATTRIBUTE
 000002ED                               901=KEYI DS    0CL6 .  INPUT DATA FIELD
 000002ED                               902=KEYO DS    CL6 .   OUTPUT DATA FIELD
0                       000002F3        904=DFH£AGAE  EQU   *     .              END OF MAP DEFINITION
 000002F3               000002F3 000002B4 905=          ORG  DFH£AGAS  .             ADDRESS START OF MAP
                                         906=* CALCULATE MAPLENGTH, ASSIGNING A VALUE OF ONE WHERE LENGTH=ZERO
                        0000003F        907=DFH£AGAL  EQU  DFH£AGAE-DFH£AGAS
 000002B4                               908=DFH£AGAI  DS  0CL(DFH£AGAL+1-(DFH£AGAL/DFH£AGAL))
 000002B4                               909=DFH£AGAO  DS  0CL(DFH£AGAL+1-(DFH£AGAL/DFH£AGAL))
 000002B4               000002B4 000002F3 910=          ORG
                                         911=* * * END OF MAP DEFINITION * * *
-
 000002F3               000002F3 000002F3 913=         ORG
                        000002F3         914=MAPSETAT EQU *       * END OF MAP SET
                                         915=* * * END OF MAP SET DEFINITION * * *
-
                                         917          COPY  DFH£AGC                     'BROWSE FILEA' MAP
                                         918=*
                                         919=*    @BANNER_START@                      02
                                         920=*
                                         921=*    Licensed Materials - Property of IBM
                                         922=*
                                         923=*    "Restricted Materials of IBM"
                                         924=*
                                         925=*    5655-S97
                                         926=*
                                         927=*    (C) Copyright IBM Corp. 1984, 2001
                                         928=*
                                         929=*    @BANNER_END@
                                         930=*
 000002F4                                931=             DS    0H                ENSURE ALIGNMENT
                        000002F4         932=DFH£AGCS  EQU  *      .             START OF MAP DEFINITION
 000002F4                                933=         DS    12C .            TIOA PREFIX
000000300                                935=DIRL DS    CL2 .  INPUT DATA FIELD LEN
 00000302                               936=DIRF DS    0C .   DATA FIELD FLAG
 00000302                               937=DIRA DS    C .    DATA FIELD ATTRIBUTE
 00000303                               938=DIRI DS    0CL1 .  INPUT DATA FIELD
 00000303                               939=DIRO DS    CL1 .   OUTPUT DATA FIELD
000000304                               941=NUMBER1L DS    CL2 .  INPUT DATA FIELD LEN
 00000306                               942=NUMBER1F DS    0C .   DATA FIELD FLAG
```

```
 00000306                                943=NUMBER1A DS    C .    DATA FIELD ATTRIBUTE
 00000307                                944=NUMBER1I DS    0CL6 .  INPUT DATA FIELD
 00000307                                945=NUMBER1O DS    CL6 .   OUTPUT DATA FIELD
00000030D                                947=NAME1L DS    CL2 .  INPUT DATA FIELD LEN
 0000030F                                948=NAME1F DS    0C .   DATA FIELD FLAG
 0000030F                                949=NAME1A DS    C .    DATA FIELD ATTRIBUTE
1        DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                Page   15
   Active Usings: DFHEISTG,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                    HLASM R6.0  2013/08/10 20.09
000000310                               950=NAME1I DS    0CL20 .  INPUT DATA FIELD
 00000310                               951=NAME1O DS    CL20 .   OUTPUT DATA FIELD
000000324                               953=AMOUNT1L DS    CL2 .  INPUT DATA FIELD LEN
 00000326                               954=AMOUNT1F DS    0C .   DATA FIELD FLAG
 00000326                               955=AMOUNT1A DS    C .    DATA FIELD ATTRIBUTE
 00000327                               956=AMOUNT1I DS    0CL8 .  INPUT DATA FIELD
 00000327                               957=AMOUNT1O DS    CL8 .   OUTPUT DATA FIELD
00000032F                               959=NUMBER2L DS    CL2 .  INPUT DATA FIELD LEN
 00000331                               960=NUMBER2F DS    0C .   DATA FIELD FLAG
 00000331                               961=NUMBER2A DS    C .    DATA FIELD ATTRIBUTE
 00000332                               962=NUMBER2I DS    0CL6 .  INPUT DATA FIELD
 00000332                               963=NUMBER2O DS    CL6 .   OUTPUT DATA FIELD
000000338                               965=NAME2L DS    CL2 .  INPUT DATA FIELD LEN
 0000033A                               966=NAME2F DS    0C .   DATA FIELD FLAG
 0000033A                               967=NAME2A DS    C .    DATA FIELD ATTRIBUTE
 0000033B                               968=NAME2I DS    0CL20 .  INPUT DATA FIELD
 0000033B                               969=NAME2O DS    CL20 .   OUTPUT DATA FIELD
00000034F                               971=AMOUNT2L DS    CL2 .  INPUT DATA FIELD LEN
 00000351                               972=AMOUNT2F DS    0C .   DATA FIELD FLAG
 00000351                               973=AMOUNT2A DS    C .    DATA FIELD ATTRIBUTE
 00000352                               974=AMOUNT2I DS    0CL8 .  INPUT DATA FIELD
 00000352                               975=AMOUNT2O DS    CL8 .   OUTPUT DATA FIELD
00000035A                               977=NUMBER3L DS    CL2 .  INPUT DATA FIELD LEN
 0000035C                               978=NUMBER3F DS    0C .   DATA FIELD FLAG
 0000035C                               979=NUMBER3A DS    C .    DATA FIELD ATTRIBUTE
 0000035D                               980=NUMBER3I DS    0CL6 .  INPUT DATA FIELD
 0000035D                               981=NUMBER3O DS    CL6 .   OUTPUT DATA FIELD
000000363                               983=NAME3L DS    CL2 .  INPUT DATA FIELD LEN
 00000365                               984=NAME3F DS    0C .   DATA FIELD FLAG
 00000365                               985=NAME3A DS    C .    DATA FIELD ATTRIBUTE
 00000366                               986=NAME3I DS    0CL20 .  INPUT DATA FIELD
 00000366                               987=NAME3O DS    CL20 .   OUTPUT DATA FIELD
00000037A                               989=AMOUNT3L DS    CL2 .  INPUT DATA FIELD LEN
 0000037C                               990=AMOUNT3F DS    0C .   DATA FIELD FLAG
 0000037C                               991=AMOUNT3A DS    C .    DATA FIELD ATTRIBUTE
 0000037D                               992=AMOUNT3I DS    0CL8 .  INPUT DATA FIELD
 0000037D                               993=AMOUNT3O DS    CL8 .   OUTPUT DATA FIELD
000000385                               995=NUMBER4L DS    CL2 .  INPUT DATA FIELD LEN
 00000387                               996=NUMBER4F DS    0C .   DATA FIELD FLAG
 00000387                               997=NUMBER4A DS    C .    DATA FIELD ATTRIBUTE
 00000388                               998=NUMBER4I DS    0CL6 .  INPUT DATA FIELD
```

```
 00000388                                999=NUMBER4O DS    CL6 .   OUTPUT DATA FIELD
00000038E                               1001=NAME4L DS    CL2 .  INPUT DATA FIELD LEN
 00000390                               1002=NAME4F DS    0C .   DATA FIELD FLAG
 00000390                               1003=NAME4A DS    C .    DATA FIELD ATTRIBUTE
 00000391                               1004=NAME4I DS    0CL20 .  INPUT DATA FIELD
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                                Page   16
   Active Usings: DFHEISTG,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
000000391                               1005=NAME4O DS    CL20 .   OUTPUT DATA FIELD
0000003A5                               1007=AMOUNT4L DS    CL2 .  INPUT DATA FIELD LEN
 000003A7                               1008=AMOUNT4F DS    0C .   DATA FIELD FLAG
 000003A7                               1009=AMOUNT4A DS    C .    DATA FIELD ATTRIBUTE
 000003A8                               1010=AMOUNT4I DS    0CL8 .  INPUT DATA FIELD
 000003A8                               1011=AMOUNT4O DS    CL8 .   OUTPUT DATA FIELD
0000003B0                               1013=MSG0L DS    CL2 .  INPUT DATA FIELD LEN
 000003B2                               1014=MSG0F DS    0C .   DATA FIELD FLAG
 000003B2                               1015=MSG0A DS    C .    DATA FIELD ATTRIBUTE
 000003B3                               1016=MSG0I DS    0CL39 .  INPUT DATA FIELD
 000003B3                               1017=MSG0O DS    CL39 .   OUTPUT DATA FIELD
0000003DA                               1019=MSG1L DS    CL2 .  INPUT DATA FIELD LEN
 000003DC                               1020=MSG1F DS    0C .   DATA FIELD FLAG
 000003DC                               1021=MSG1A DS    C .    DATA FIELD ATTRIBUTE
 000003DD                               1022=MSG1I DS    0CL39 .  INPUT DATA FIELD
 000003DD                               1023=MSG1O DS    CL39 .   OUTPUT DATA FIELD
000000404                               1025=MSG2L DS    CL2 .  INPUT DATA FIELD LEN
 00000406                               1026=MSG2F DS    0C .   DATA FIELD FLAG
 00000406                               1027=MSG2A DS    C .    DATA FIELD ATTRIBUTE
 00000407                               1028=MSG2I DS    0CL39 .  INPUT DATA FIELD
 00000407                               1029=MSG2O DS    CL39 .   OUTPUT DATA FIELD
0                      0000042E         1031=DFH£AGCE  EQU   *     .               END OF MAP DEFINITION
 0000042E              0000042E 000002F4 1032=           ORG  DFH£AGCS  .              ADDRESS START OF MAP
                                        1033=* CALCULATE MAPLENGTH, ASSIGNING A VALUE OF ONE WHERE LENGTH=ZERO
                       0000013A         1034=DFH£AGCL  EQU  DFH£AGCE-DFH£AGCS
 000002F4                               1035=DFH£AGCI  DS  0CL(DFH£AGCL+1-(DFH£AGCL/DFH£AGCL))
 000002F4                               1036=DFH£AGCO  DS  0CL(DFH£AGCL+1-(DFH£AGCL/DFH£AGCL))
 000002F4              000002F4 0000042E 1037=           ORG
                                        1038=* * * END OF MAP DEFINITION * * *
-
 0000042E              0000042E 0000042E 1040=         ORG
                       0000042E         1041=MAPSETCT EQU *       * END OF MAP SET
                                        1042=* * * END OF MAP SET DEFINITION * * *
-
                                        1044          COPY  DFHAID
                                        1045=*/*****************************************************************/ 00000100
                                        1046=*/*                                                               */ 00000200
                                        1047=*/*                                                               */ 00000800
                                        1048=*/*                                                               */ 00000900
                                        1049=*/*      Licensed Materials - Property of IBM                     */ 00001000
                                        1050=*/*                                                               */ 00001100
                                        1051=*/*      "Restricted Materials of IBM"                            */ 00001200
```

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                                       1052=*/*                                                                      */ 00001300
                                       1053=*/*      5655-Y04                                                        */ 00001400
                                       1054=*/*                                                                      */ 00001500
                                       1055=*/*      (C) Copyright IBM Corp. 1992, 1993"                             */ 00001600
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                                 Page   17
   Active Usings: DFHEISTG,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                          HLASM R6.0  2013/08/10 20.09
0                                      1056=*/*                                                                      */ 00001700
                                       1057=*/*                                                                      */ 00001900
                                       1058=*/*                                                                      */ 00002000
                                       1059=*/*                                                                      */ 00002200
                                       1060=*/*                                                                      */ 00002300
                                       1061=*/*MODULE NAME = DFHAID                                                  */ 00002400
                                       1062=*/*                                                                      */ 00002500
                                       1063=*/*DESCRIPTIVE NAME = CICS TS  3270 AID VALUES                           */ 00002600
                                       1064=*/*                                                                      */ 00002700
                                       1065=*/*                                                                      */ 00002800
                                       1066=*/*STATUS = %XB10                                                        */ 00002900
                                       1067=*/*                                                                      */ 00003000
                                       1068=*/*FUNCTION = DEFINES THE STANDARD 3270 AID VALUES                       */ 00003100
                                       1069=*/*                                                                      */ 00003200
                                       1070=*/*                                                                      */ 00003300
                                       1071=*/*CHANGE ACTIVITY :                                                     */ 00003400
                                       1072=*/* £SEG(DFHAID),COMP(BTAM),PROD(CICS TS ):                             */ 00003500
                                       1073=*/*                                                                      */ 00003600
                                       1074=*/* PN= REASON REL YYMMDD HDXIII : REMARKS                               */ 00003700
                                       1075=*/* £P1= M81072 410 920707 HD9CTNG: Restore DFHAID copybooks to LCS      */ 00003800
                                       1076=*/* £P2= M83615 410 930819 HD4OGB  : Fix Change Descriptors              */ 00003900
                                       1077=*/*£P3= D19802 %EU 070928 HD1MA  : removal of DFHAID A                   */ 00004000
                                       1078=*/*                                                                      */ 00004100
                                       1079=*/*********************************************************************/ 00004200
                                       1080=* DECLARE    (                                                             00004300
                                       1081=*                   DFHENTER  CHAR (1) INIT(''''),                       00004400
                                       1082=*                   DFHCLEAR  CHAR (1) INIT('_'),                        00004500
                                       1083=*                   DFHCLRP   CHAR (1) INIT('¦'),                        00004600
                                       1084=*                   DFHPEN    CHAR (1) INIT('='),                        00004700
                                       1085=*                   DFHOPID   CHAR (1) INIT('W'),                        00004800
                                       1086=*                   DFHMSRE   CHAR (1) INIT('X'),                        00004900
                                       1087=*                   DFHSTRF   CHAR (1) INIT('h'),                        00005000
                                       1088=*                   DFHTRIG   CHAR (1) INIT('"'),                        00005100
                                       1089=*                   DFHPA1    CHAR (1) INIT('%'),                        00005200
                                       1090=*                   DFHPA2    CHAR (1) INIT('>'),                        00005300
                                       1091=*                   DFHPA3    CHAR (1) INIT(','),                        00005400
                                       1092=*                   DFHPF1    CHAR (1) INIT('1'),                        00005500
                                       1093=*                   DFHPF2    CHAR (1) INIT('2'),                        00005600
                                       1094=*                   DFHPF3    CHAR (1) INIT('3'),                        00005700
                                       1095=*                   DFHPF4    CHAR (1) INIT('4'),                        00005800
                                       1096=*                   DFHPF5    CHAR (1) INIT('5'),                        00005900
                                       1097=*                   DFHPF6    CHAR (1) INIT('6'),                        00006000
                                       1098=*                   DFHPF7    CHAR (1) INIT('7'),                        00006100
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                                    1099=*                   DFHPF8    CHAR (1) INIT('8'),                        00006200
                                    1100=*                   DFHPF9    CHAR (1) INIT('9'),                        00006300
                                    1101=*                   DFHPF10   CHAR (1) INIT(':'),                        00006400
                                    1102=*                   DFHPF11   CHAR (1) INIT('#'),                        00006500
                                    1103=*                   DFHPF12   CHAR (1) INIT('@'),                        00006600
                                    1104=*                   DFHPF13   CHAR (1) INIT('A'),                        00006700
                                    1105=*                   DFHPF14   CHAR (1) INIT('B'),                        00006800
                                    1106=*                   DFHPF15   CHAR (1) INIT('C'),                        00006900
                                    1107=*                   DFHPF16   CHAR (1) INIT('D'),                        00007000
                                    1108=*                   DFHPF17   CHAR (1) INIT('E'),                        00007100
                                    1109=*                   DFHPF18   CHAR (1) INIT('F'),                        00007200
                                    1110=*                   DFHPF19   CHAR (1) INIT('G'),                        00007300
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                          Page   18
   Active Usings: DFHEISTG,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                          HLASM R6.0  2013/08/10 20.09
0                                   1111=*                   DFHPF20   CHAR (1) INIT('H'),                        00007400
                                    1112=*                   DFHPF21   CHAR (1) INIT('I'),                        00007500
                                    1113=*                   DFHPF22   CHAR (1) INIT('$'),                        00007600
                                    1114=*                   DFHPF23   CHAR (1) INIT('.'),                        00007700
                                    1115=*                   DFHPF24   CHAR (1) INIT('<')                         00007800
                                    1116=*              ) STATIC INTERNAL;                                        00007900
                                    1117=*/*                                                                  *   00008000
                                    1118=*****************************************************************       00008100
                                    1119=*   START OF ASSEMBLER SECTION                                       *   00008200
                                    1120=*****************************************************************       00008300
                        00000000    1121=DFHNULL  EQU   X'00'                                                    00008400
                        0000007D    1122=DFHENTER EQU   C''''                                                    00008500
                        0000006D    1123=DFHCLEAR EQU   C'_'                                                     00008600
                        0000006A    1124=DFHCLRP  EQU   X'6A'              CLEAR PARTITION                       00008700
                        0000007E    1125=DFHPEN   EQU   C'='                                                     00008800
                        000000E6    1126=DFHOPID  EQU   C'W'                                                     00008900
                        000000E7    1127=DFHMSRE  EQU   C'X'                                                     00009000
                        00000088    1128=DFHSTRF  EQU   X'88'              INBOUND STRUCTURED FIELD              00009100
                        0000007F    1129=DFHTRIG  EQU   C'"'               TRIGGER                               00009200
                        0000006C    1130=DFHPA1   EQU   C'%'                                                     00009300
                        0000006E    1131=DFHPA2   EQU   C'>'                                                     00009400
                        0000006B    1132=DFHPA3   EQU   C','                                                     00009500
                        000000F1    1133=DFHPF1   EQU   C'1'                                                     00009600
                        000000F2    1134=DFHPF2   EQU   C'2'                                                     00009700
                        000000F3    1135=DFHPF3   EQU   C'3'                                                     00009800
                        000000F4    1136=DFHPF4   EQU   C'4'                                                     00009900
                        000000F5    1137=DFHPF5   EQU   C'5'                                                     00010000
                        000000F6    1138=DFHPF6   EQU   C'6'                                                     00010100
                        000000F7    1139=DFHPF7   EQU   C'7'                                                     00010200
                        000000F8    1140=DFHPF8   EQU   C'8'                                                     00010300
                        000000F9    1141=DFHPF9   EQU   C'9'                                                     00010400
                        0000007A    1142=DFHPF10  EQU   C':'                                                     00010500
                        0000007B    1143=DFHPF11  EQU   C'#'                                                     00010600
                        0000007C    1144=DFHPF12  EQU   C'@'                                                     00010700
                        000000C1    1145=DFHPF13  EQU   C'A'                                                     00010800
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                    000000C2            1146=DFHPF14  EQU   C'B'                                                    00010900
                    000000C3            1147=DFHPF15  EQU   C'C'                                                    00011000
                    000000C4            1148=DFHPF16  EQU   C'D'                                                    00011100
                    000000C5            1149=DFHPF17  EQU   C'E'                                                    00011200
                    000000C6            1150=DFHPF18  EQU   C'F'                                                    00011300
                    000000C7            1151=DFHPF19  EQU   C'G'                                                    00011400
                    000000C8            1152=DFHPF20  EQU   C'H'                                                    00011500
                    000000C9            1153=DFHPF21  EQU   C'I'                                                    00011600
                    0000004A            1154=DFHPF22  EQU   C'$'                                                    00011700
                    0000004B            1155=DFHPF23  EQU   C'.'                                                    00011800
                    0000004C            1156=DFHPF24  EQU   C'<'                                                    00011900
                                        1157=**/                                                                    00012000
                                        1158          DFHEIEND
                                        1159+*              TERMINATE DEFINITION OF DYNAMIC STORAGE               *
 0000042E               00000000 0000042E   1160+DFHEISTG DSECT                                          @BBAC81A 01-DFHEIEND
 0000042E               0000042E 0000042E   1161+         ORG                                                    01-DFHEIEND
 0000042E                                   1162+DFHEIEND DS    0X                 END OF DYNAMIC STORAGE   @BBAC81A 01-DFHEIEND
                                            1163 *
 00000000               00000000 000009D3   1164 DFH£ABRW CSECT
                                            1165 DFH£ABRW AMODE 64
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                          Page   19
   Active Usings: DFHEISTG,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
0                                           1166 DFH£ABRW RMODE 31
                                            1167          DFHEIENT DATAREG=13,EIBREG=11,STATREG=3,STATIC=STATR,CODEREG=0
                                            1258+*************************************************************************
                                            1259+*                                                                       *
                                            1260+* CONTROL BLOCK NAME = DFHEIBLK                                         *
                                            1261+*                                                                       *
                                            1262+* NAME OF MATCHING PL/AS CONTROL BLOCK = None                           *
                                            1263+*                                                                       *
                                            1264+* DESCRIPTIVE NAME = CICS TS  EXEC Interface Block.                    *
                                            1265+*                                                                       *
                                            1266+*                                                                       *
                                            1267+*                                                                       *
                                            1268+*        Licensed Materials - Property of IBM                           *
                                            1269+*                                                                       *
                                            1270+*        "Restricted Materials of IBM"                                  *
                                            1271+*                                                                       *
                                            1272+*        5655-Y04                                                       *
                                            1273+*                                                                       *
                                            1274+*        (C) Copyright IBM Corp. 1990, 1993"                            *
                                            1275+*                                                                       *
                                            1276+*                                                                       *
                                            1277+*                                                                       *
                                            1278+*                                                                       *
                                            1279+* STATUS = 6.8.0                                                       *
                                            1280+*                                                                       *
                                            1281+* FUNCTION = EXEC Interface Block.                                     *
                                            1282+*                                                                       *
```

```
                                       1283+*        The exec interface block contains information on the        *
                                       1284+*        transaction identifier, the time and date, and the cursor   *
                                       1285+*        position on a display device. Some of the other fields are  *
                                       1286+*        set indicating the next action that a program should take   *
                                       1287+*        in certain circumstances.                                   *
                                       1288+*        DFHEIBLK also contains information that will be helpful     *
                                       1289+*        when a dump is being used to debug a program.               *
                                       1290+*        This control block is included automatically by an          *
                                       1291+*        application program using the command-level interface.      *
                                       1292+*        EISEIBA in the EIS addresses the EIB.                       *
                                       1293+*                                                                    *
                                       1294+*                                                                    *
                                       1295+*                                                                    *
                                       1296+* NOTES :                                                           *
                                       1297+*    DEPENDENCIES = S/370                                            *
                                       1298+*    MODULE TYPE = Control block definition                          *
                                       1299+*    PROCESSOR = Assembler                                           *
                                       1300+*                                                                    *
                                       1301+*------------------------------------------------------------------- *
                                       1302+*                                                                    *
                                       1303+* CHANGE ACTIVITY :                                                 *
                                       1304+*   £SEG(DFHEIBLK),COMP(COMMAND),PROD(CICS TS ) :                   *
                                       1305+*                                                                    *
                                       1306+*     PN= REASON REL YYMMDD HDXXIII : REMARKS                        *
                                       1307+*    £L1= 550    321 900515 HDFSPC  : Add an EIB length equate        *
                                       1308+*    £D1= I05119 410 930226 HDDHDMA : Correct comments for date field *
                                       1309+*    £P1= M60581 320 900116 HDAEGB  : Change for PLXMAP to data areas *
                                       1310+*                                                                    *
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                                Page   20
   Active Usings: DFHEISTG,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
0                                       1311+*************************************************************************
                                       1312+*             EXEC INTERFACE BLOCK                                      *
                                       1313+*************************************************************************
 00000000                 00000000 00000055   1314+DFHEIBLK DSECT                    EXEC INTERFACE BLOCK        @BBAC81A 01-DFHEIENT
                    R:B 00000000             1315+         USING *,DFHEIBR                                       @BBAC81A 01-DFHEIENT
 00000000                                    1316+EIBTIME  DS    PL4                TIME IN 0HHMMSS FORMAT      @BBAC81A 01-DFHEIENT
 00000004                                    1317+EIBDATE  DS    PL4                DATE IN 0CYYDDD+ FORMAT,        @D1C 01-DFHEIENT
                                             1318+*                                 where C is the century          @D1A
                                             1319+*                                 indicator (0=1900, 1=2000),     @D1A
                                             1320+*                                 YY is the year, DDD is the      @D1A
                                             1321+*                                 day number and '+' is the       @D1A
                                             1322+*                                 sign byte (positive)            @D1A
 00000008                                    1323+EIBTRNID DS    CL4                TRANSACTION IDENTIFIER      @BBAC81A 01-DFHEIENT
 0000000C                                    1324+EIBTASKN DS    PL4                TASK NUMBER                 @BBAC81A 01-DFHEIENT
 00000010                                    1325+EIBTRMID DS    CL4                TERMINAL IDENTIFIER         @BBAC81A 01-DFHEIENT
 00000014                                    1326+EIBRSVD1 DS    H                  RESERVED                    @BBAC81A 01-DFHEIENT
 00000016                                    1327+EIBCPOSN DS    H                  CURSOR POSITION             @BBAC81A 01-DFHEIENT
 00000018                                    1328+EIBCALEN DS    H                  COMMAREA LENGTH             @BBAC81A 01-DFHEIENT
 0000001A                                    1329+EIBAID   DS    CL1                ATTENTION IDENTIFIER        @BBAC81A 01-DFHEIENT
```

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 0000001B                                1330+EIBFN    DS    CL2               FUNCTION CODE               @BBAC81A 01-DFHEIENT
 0000001D                                1331+EIBRCODE DS    CL6               RESPONSE CODE               @BBAC81A 01-DFHEIENT
 00000023                                1332+EIBDS    DS    CL8               DATASET NAME                @BBAC81A 01-DFHEIENT
 0000002B                                1333+EIBREQID DS    CL8               REQUEST IDENTIFIER          @BBAC81A 01-DFHEIENT
 00000033                                1334+EIBRSRCE DS    CL8               RESOURCE NAME               @BBDIA0U 01-DFHEIENT
 0000003B                                1335+EIBSYNC  DS    C                 X'FF' SYNCPOINT REQUESTED   @BBDIA0U 01-DFHEIENT
 0000003C                                1336+EIBFREE  DS    C                 X'FF' FREE REQUESTED        @BBDIA0U 01-DFHEIENT
 0000003D                                1337+EIBRECV  DS    C                 X'FF' RECEIVE REQUIRED      @BBDIA0U 01-DFHEIENT
 0000003E                                1338+EIBSEND  DS    C                 RESERVED                    @BM13417 01-DFHEIENT
 0000003F                                1339+EIBATT   DS    C                 X'FF' ATTACH RECEIVED       @BBDIA0U 01-DFHEIENT
 00000040                                1340+EIBEOC   DS    C                 X'FF' EOC RECEIVED          @BBDIA0U 01-DFHEIENT
 00000041                                1341+EIBFMH   DS    C                 X'FF' FMHS RECEIVED         @BBDIA0U 01-DFHEIENT
 00000042                                1342+EIBCOMPL DS    C                 X'FF' DATA COMPLETE                  01-DFHEIENT
 00000043                                1343+EIBSIG   DS    C                 X'FF' SIGNAL RECEIVED                01-DFHEIENT
 00000044                                1344+EIBCONF  DS    C                 X'FF' CONFIRM REQUESTED              01-DFHEIENT
 00000045                                1345+EIBERR   DS    C                 X'FF' ERROR RECEIVED                 01-DFHEIENT
 00000046                                1346+EIBERRCD DS    CL4               ERROR CODE RECEIVED                  01-DFHEIENT
 0000004A                                1347+EIBSYNRB DS    C                 X'FF' SYNC ROLLBACK REQ'D            01-DFHEIENT
 0000004B                                1348+EIBNODAT DS    C                 X'FF' NO APPL DATA RECEIVED          01-DFHEIENT
 0000004C                                1349+EIBRESP  DS    F                 INTERNAL CONDITION NUMBER            01-DFHEIENT
 00000050                                1350+EIBRESP2 DS    F                 MORE DETAILS ON SOME RESPONSES       01-DFHEIENT
 00000054                                1351+EIBRLDBK DS    CL1               ROLLED BACK                          01-DFHEIENT
                                         1352+*
                      00000055           1353+EIBLENG  EQU   *-EIBTIME         Length of EIB                 @L1A 01-DFHEIENT
                                         1354+*****************************************************************
                                         1355+*             END OF EXEC INTERFACE BLOCK                       *
                                         1356+*****************************************************************
                      0000000B           1357+DFHEIBR  EQU   11                EIB REGISTER                @BA02936 01-DFHEIENT
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                                Page   21
   Active Usings: DFHEIBLK,R11  DFHEISTG,R13
0D-Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
0                                       1360+*****************************************************************
                                        1361+*             PROLOG CODE FOR EXEC INTERFACE                    *
                                        1362+*****************************************************************
 00000000                 00000000 000009D3  1363+DFH£ABRW CSECT                                          @BBAC81A 01-DFHEIENT
 00000000 A7F4 0014                00000028  1364+DFH0008A J     DFH0008C          Branch around eyecatcher    @R31410C 01-DFHEIENT
 00000004 23                                 1365+         DC    AL1(DFH0008B-*-1) Length of eyecatcher            @P6A 01-DFHEIENT
 00000005 C4C6C85BC1C2D9E6                   1366+         DC    CL12'DFH£ABRW(U)' Csect (assembled by)            @P6A 01-DFHEIENT
 00000011 F0F861F1F061F1F3                   1367+         DC    CL9'08/10/13'     Assembly date                   @P6A 01-DFHEIENT
 0000001A F2F04BF0F940                       1368+         DC    CL6'20.09'        Assembly time                   @P6A 01-DFHEIENT
 00000020 A9D6E2F6F8F04040                   1369+         DC    CL8'zOS680'       PTF number                      @P6A 01-DFHEIENT
                      00000028           1370+DFH0008B EQU   *                 End of eyecatcher               @D2A 01-DFHEIENT
 00000028                                1461+DFH0008C DS    0H                                            @R31410A 01-DFHEIENT
 00000028                                1462+         DS    0S((DFHEISTG+65264-DFHEIEND-4096)/4096)  Length @R31410A 01-DFHEIENT
                                         1463+*                                                        check
 00000028 EBEC D008 0024          00000008  1464+         STMG  14,12,8(13)       Save callers registers      @R31410A 01-DFHEIENT
 0000002E 0700                              1465+         CNOP  0,4               Force word alignment        @R31410A 01-DFHEIENT
 00000030 A715 0007               0000003E  1466+         JAS   1,DFH0008D        Setup base and skip constants        01-DFHEIENT
                                         1467+*                                                            @R31410A
 00000034 0000042E                       1468+         DC    AL4(DFHEIEND-DFHEISTG) Length of storage      @R31410A 01-DFHEIENT
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 00000038 00000000                          1469+         DC    V(DFHEAG0)          Entry point                @R31410A 01-DFHEIENT
 0000003C 0000                              1470+         DC    AL2(0)              Version                    @R31410A 01-DFHEIENT
 0000003E                                   1471+DFH0008D DS    0H                                             @R31410A 01-DFHEIENT
 0000003E E3F0 1004 0017          00000004  1472+         LLGT  15,4(,1)            Load entry point           @R31410A 01-DFHEIENT
 00000044 0DEF                              1473+         BASR  14,15               Call DFHEAG0               @R31410A 01-DFHEIENT
                                            1474+*************************************************************************
                                            1475+*              SETUP STATIC STORAGE ADDRESSABILITY                      *
                                            1476+*************************************************************************
 00000046 C030 0000 0329          00000698  1477+         LARL  3,STATR             Load static storage base       @D3C 01-DFHEIENT
                    R:3 00000698            1478+         USING STATR,3                                            @D2A 01-DFHEIENT
                                            1479+*************************************************************************
                                            1480+*              ESTABLISH DATA ADDRESSIBILITY                            *
                                            1481+*************************************************************************
                         0000000D           1482+DFHEIPLR EQU   13                  PARAMETER LIST REGISTER    @BBAC81A 01-DFHEIENT
 0000004C B904 00D1                         1483+         LGR   DFHEIPLR,1                                       @R31410A 01-DFHEIENT
                    R:D 00000000            1484+         USING DFHEISTG,13                                        @BBAC81A 01-DFHEIENT
                                            1485+*************************************************************************
                                            1486+*              ESTABLISH EIB ADDRESSIBILITY                             *
                                            1487+*************************************************************************
 00000050 E3B0 D090 0004          00000090  1488+         LG    DFHEIBR,DFHEIBP                                  @R31410A 01-DFHEIENT
                    R:B 00000000            1489+         USING DFHEIBLK,DFHEIBR                                   @BBAC81A 01-DFHEIENT
                                            1490+*************************************************************************
                                            1491+*              END OF PROLOG CODE FOR EXEC INTERFACE                    *
                                            1492+*************************************************************************
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                                 Page   22
   Active Usings: STATR,R3  DFHEIBLK,R11  DFHEISTG,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                          HLASM R6.0  2013/08/10 20.09
0                                           1495 *
                                            1496 *        THE LENGTH OF THE "COMMAREA" IS TESTED. IF NOT ZERO, THEN
                                            1497 *        THE PROGRAM MUST RECEIVE THE BROWSE MAP (DFH£AGC) WHICH WILL
                                            1498 *        CONTAIN THE OPERATOR COMMAND, INSTRUCTING THE PROGRAM TO
                                            1499 *        BROWSE FORWARD, BROWSE BACK OR TO TERMINATE AND DISPLAY THE
                                            1500 *        OPERATOR INSTRUCTION MAP (DFH£AGA).
                                            1501 *
 00000056 4840 B018               00000018  1502          LH    COMPTR,EIBCALEN              TEST FOR COMMAREA
 0000005A 1244                              1503          LTR   COMPTR,COMPTR
 0000005C A774 019C               00000394  1504          JNZ   RECEIVE                      PRESENT, GET BROWSE MAP
                                            1505 *
                                            1506 *        WORK AREAS ARE INITIALIZED TO BEGIN THE BROWSE.
                                            1507 *
 00000060 92F0 D202       00000202          1508          MVI   KEYS,X'F0'                         '0' INTO TOP BYTE
 00000064 D20A D203 D202 00000203 00000202   1509          MVC   KEYS+1(L'KEYS-1),KEYS              SET KEYS TO ZERO
 0000006A 9240 D20E       0000020E          1510          MVI   MESSAGES,X'40'                     ' ' INTO TOP BYTE
 0000006E D24E D20F D20E 0000020F 0000020E   1511          MVC   MESSAGES+1(L'MESSAGES-1),MESSAGES  CLEAR MESSAGES
                                            1512 *
                                            1513 *        THE COMMAND MAPS IN THE ACCOUNT NUMBER FROM THE OPERATOR
                                            1514 *        INSTRUCTION SCREEN. NOTICE THE USE OF THE "RESP" OPTION ON
                                            1515 *        THE COMMAND, WHICH RESULTS IN THE RESPONSE TO THE COMMAND
                                            1516 *        BEING MOVED TO THE BINARY FULLWORD VARIABLE "RESP", DEFINED
                                            1517 *        AT LINE 11 OF THE PROGRAM. THE PROGRAM MUST THEN EXPLICITLY
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                                        1518 *        CHECK THIS RESPONSE, AND TAKE THE APPROPRIATE ACTION IF THE
                                        1519 *        RESPONSE WAS NOT "NORMAL". ALSO, NOTICE THAT THE "EIBAID"
                                        1520 *        FIELD OF THE EXEC INTERFACE BLOCK IS TESTED TO SEE IF THE
                                        1521 *        "CLEAR" KEY WAS PRESSED BEFORE THE RESPONSE TO THE COMMAND IS
                                        1522 *        CHECKED. WE CANNOT USE THE "HANDLE AID" COMMAND, AS THE "RESP"
                                        1523 *        OPTION IMPLIES "NOHANDLE".
                                        1524 *
                                        1525 *        EXEC CICS RECEIVE MAP('DFH£AGA') RESP(RESPONSE)
                                        1526          DFHECALL =X'1802C000280000000040900000020',(CHA7,=CL7'DFH£AGA*
                                                        '),(______RF,DFH£AGAI)
                                        1528+**************************************************************************
 00000074                               1529+         DS    0H                                                    01-DFHECALL
 00000074 4110 D0B0          000000B0   1530+         LA    1,DFHEIPL                                             01-DFHECALL
 00000078 41E0 327C          00000914   1531+         LA    14,=X'1802C000280000000040900000020'                  01-DFHECALL
 0000007C 41F0 328B          00000923   1532+         LA    15,=CL7'DFH£AGA'                                      01-DFHECALL
 00000080 4100 D2B4          000002B4   1533+         LA    0,DFH£AGAI                                            01-DFHECALL
 00000084 90E0 1000          00000000   1534+         STM   14,0,0(1)                                             01-DFHECALL
 00000088 9680 1008  00000008           1535+         OI    8(1),X'80'          LAST ARGUMENT                     01-DFHECALL
 0000008C E3F0 3248 0017     000008E0   1536+         LLGT  15,=V(DFHEG1)                                 @R31410A 01-DFHECALL
 00000092 0DEF                          1537+         BASR  14,15                                         @R31410A 01-DFHECALL
                                        1538+**************************************************************************
 00000094 D203 D260 B04C 00000260 0000004C 1539        MVC   RESPONSE(4),EIBRESP
 0000009A 956D B01A  0000001A           1540         CLI   EIBAID,DFHCLEAR      WAS CLEAR KEY PRESSED?
 0000009E A784 02C0          0000061E   1541         JE    SMSG                 ... YES, RE-DISPLAY MAP
                                        1542 *        CLC   RESPONSE,DFHRESP(MAPFAIL) WAS MAPFAIL CONDITION RAISED?
 000000A2 D503 D260 324C 00000260 000008E4 1543        CLC   RESPONSE,=F'36'
 000000A8 A784 02BB          0000061E   1544         JE    SMSG                 ... YES, RE-DISPLAY MAP
                                        1545 *        CLC   RESPONSE,DFHRESP(NORMAL) IS THERE AN UNEXPECTED ERROR?
 000000AC D503 D260 3250 00000260 000008E8 1546        CLC   RESPONSE,=F'0'
 000000B2 A774 02BB          00000628   1547         JNE   ERRORS               ... YES, TERMINATE TRANSACTION
                                        1548 **************************************************************************
                                        1549 *                                                                        *
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                  Page   23
   Active Usings: STATR,R3  DFHEIBLK,R11  DFHEISTG,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                HLASM R6.0  2013/08/10 20.09
0                                       1550 *                                                                        *
                                        1551 *                                                                        *
                                        1552 *        Licensed Materials - Property of IBM                            *
                                        1553 *                                                                        *
                                        1554 *        "Restricted Materials of IBM"                                   *
                                        1555 *                                                                        *
                                        1556 *        5655-Y04                                                        *
                                        1557 *                                                                        *
                                        1558 *        (C) Copyright IBM Corp. 1984, 2012"                             *
                                        1559 *                                                                        *
                                        1560 *                                                                        *
                                        1561 *                                                                        *
                                        1562 *                                                                        *
                                        1563 *                                    SIMPLE CHECKS OF INPUT DATA         *
                                        1564 **************************************************************************
```

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                                        1565 *
                                        1566 *        IF NO ACCOUNT NUMBER IS ENTERED, BROWSING BEGINS AT THE
                                        1567 *        START OF THE FILE.
                                        1568 *
 000000B6 D501 D2EA 3264 000002EA 000008FC 1569          CLC   KEYL,=H'0'          WAS ACCOUNT NUMBER OMITTED?
 000000BC A784 001C               000000F4 1570          JE    NOACCNUM             YES - FRONT OF FILE BY DEFAULT.
                                        1571 *
                                        1572 *        IF THE FORMAT OF THE ACCOUNT NUMBER IS VALID, THE NUMBER IS
                                        1573 *        USED TO SET THE PROGRAM'S BROWSE POINTERS, OTHERWISE AN ERROR
                                        1574 *        MESSAGE IS DISPLAYED ON THE OPERATOR INSTRUCTION MENU.
                                        1575 *        ENTERING THE MAXIMUM VALUE (999999) FOR THE ACCOUNT NUMBER
                                        1576 *        BEGINS A BACKWARD BROWSE FROM THE END OF THE FILE.
                                        1577 *
 000000C0 DD05 D2ED 3000 000002ED 00000698 1578          TRT   KEYI,CHEKTAB        CHECK ACCOUNT NUMBER IS NUMERIC,
 000000C6 A774 0012               000000EA 1579          JNZ   BADCHARS             IT ISN'T - GO DISPLAY MESSAGE.
 000000CA D205 D208 D2ED 00000208 000002ED 1580          MVC   RIDF,KEYI
 000000D0 D205 D202 D2ED 00000202 000002ED 1581          MVC   RIDB,KEYI
 000000D6 D505 D208 3266 00000208 000008FE 1582          CLC   RIDF,=C'999999'      IF ACCOUNT NUMBER IS MAXIMUM
 000000DC A774 0011               000000FE 1583          JNE   BRWSNOW               SET RECORD KEY HIGH TO
 000000E0 D205 D208 326C 00000208 00000904 1584          MVC   RIDF,=6X'FF'          BROWSE BACKWARD 1ST. TIME
 000000E6 A7F4 000C               000000FE 1585          J     BRWSNOW
                                        1586 *
 000000EA D24F D20E 3100 0000020E 00000798 1587 BADCHARS MVC   MESSAGES,=CL(L'MESSAGES)'ACCOUNT NUMBER MUST BE NUMERIC'
 000000F0 A7F4 02AD               0000064A 1588          J     AMNU
                                        1589 *
 000000F4 D205 D208 3272 00000208 0000090A 1590 NOACCNUM MVC   RIDF,=C'000000'                       0 DIGITS ENTERED
 000000FA A7F4 0002               000000FE 1591          J     BRWSNOW
                                        1592 ********************************************************************
                                        1593 *                                     ESTABLISH START POINT          *
                                        1594 ********************************************************************
 000000FE                               1595 BRWSNOW  DS    0H
 000000FE 92D5 D201      00000201       1596          MVI   STATUS,C'N'                 SET FILE STATUS NORMAL
                                        1597 *
                                        1598 *        THE "STARTBR" COMMAND ESTABLISHES THE BROWSE STARTING POINT
                                        1599 *
                                        1600 *        EXEC CICS STARTBR FILE('FILEA') RIDFLD(RIDF) RESP(RESPONSE)
                                        1601          DFHECALL =X'060CB000280020A000',(CHA8,=CL8'FILEA'),,(FB_2,=A(0*
                                                           )),(______RF,RIDF)
                                        1603+********************************************************************
 00000102                               1604+         DS    0H                                                    01-DFHECALL
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                          Page   24
   Active Usings: STATR,R3  DFHEIBLK,R11  DFHEISTG,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
000000102 4110 D0B0               000000B0 1605+         LA    1,DFHEIPL                                             01-DFHECALL
 00000106 41E0 3292               0000092A 1606+         LA    14,=X'060CB000280020A000'                             01-DFHECALL
 0000010A 41F0 3240               000008D8 1607+         LA    15,=CL8'FILEA'                                        01-DFHECALL
 0000010E 1B00                             1608+         SR    0,0                                                   01-DFHECALL
 00000110 90E0 1000               00000000 1609+         STM   14,0,0(1)                                             01-DFHECALL
 00000114 41E0 3254               000008EC 1610+         LA    14,=A(0)                                              01-DFHECALL
 00000118 41F0 D208               00000208 1611+         LA    15,RIDF                                               01-DFHECALL
```

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0000011C 90EF 100C              0000000C   1612+         STM   14,15,12(1)                                                  01-DFHECALL
00000120 9680 1010      00000010           1613+         OI    16(1),X'80'         LAST ARGUMENT                            01-DFHECALL
00000124 E3F0 3248 0017         000008E0   1614+         LLGT  15,=V(DFHEG1)                                  @R31410A 01-DFHECALL
0000012A 0DEF                              1615+         BASR  14,15                                          @R31410A 01-DFHECALL
                                           1616+*************************************************************************
0000012C D203 D260 B04C 00000260 0000004C  1617          MVC   RESPONSE(4),EIBRESP
                                           1618 *                                    CHECK RESPONSES
                                           1619 *        CLC   RESPONSE,DFHRESP(NOTFND)      DOES THE RECORD EXIST?
00000132 D503 D260 3258 00000260 000008F0  1620          CLC   RESPONSE,=F'13'
00000138 A784 026E              00000614   1621          JE    NOTFOUND                  ... NO, NOTIFY USER
                                           1622 *        CLC   RESPONSE,DFHRESP(NORMAL)   WAS THERE AN UNEXPECTED ERROR
0000013C D503 D260 3250 00000260 000008E8  1623          CLC   RESPONSE,=F'0'
00000142 A774 0273              00000628   1624          JNE   ERRORS                    ... YES, TERMINATE TRANSACTION
00000146 D505 D208 326C 00000208 00000904  1625          CLC   RIDF,=6X'FF'
0000014C A774 0006              00000158   1626          JNE   PAGEF
                                           1627 *                                  TREAT AS HI-EOF,
00000150 92C8 D201      00000201           1628          MVI   STATUS,C'H'              AND
00000154 A7F4 008D              0000026E   1629          J     PAGEB               PAGE BACKWARDS
                                           1630 *************************************************************************
                                           1631 *                                    BUILD NEXT FORWARD PAGE        *
                                           1632 *************************************************************************
00000158                                   1633 PAGEF    DS    0H
                                           1634 *                                          CLEAR MAP
00000158 A755 017D              00000452   1635          BRAS  R5,CLEARMAP
                                           1636 *
                                           1637 *        THE LENGTH OF THE "COMMAREA" IS TESTED. IF ZERO, THEN THE
                                           1638 *        ROUTINE "NEXTLINE" GAINS CONTROL TO BUILD THE BROWSE MAP TO
                                           1639 *        BE DISPLAYED TO THE OPERATOR, IF NON-ZERO, A "STARTBR" COMMAND
                                           1640 *        IS ISSUED TO RESTART BROWSING AT THE RECORD WHOSE KEY IS
                                           1641 *        CONTAINED IN "RIDF". NOTE THE NEED FOR AN EXTRA "READNEXT"
                                           1642 *        WHEN BROWSING FORWARD FROM A POSITION IN THE MIDDLE OF THE
                                           1643 *        FILE.
                                           1644 *
0000015C D501 B018 3264 00000018 000008FC  1645          CLC   EIBCALEN,=H'0'               IF COMMAREA PRESENT, THEN
00000162 A784 002B              000001B8   1646          JE    NEXTLINE                     THEN START BROWSE AT POINT
                                           1647 *                                          WE LEFT OFF LAST TIME
                                           1648 *        EXEC  CICS STARTBR FILE('FILEA')
                                           1649 *              RIDFLD(RIDF)
                                           1650 *              RESP(RESPONSE)
                                           1651          DFHECALL =X'060CB000280020A000',(CHA8,=CL8'FILEA'),,(FB_2,=A(0*
                                                               )),(______RF,RIDF)
                                           1653+*************************************************************************
00000166                                   1654+         DS    0H                                                           01-DFHECALL
00000166 4110 D0B0              000000B0   1655+         LA    1,DFHEIPL                                                    01-DFHECALL
0000016A 41E0 3292              0000092A   1656+         LA    14,=X'060CB000280020A000'                                    01-DFHECALL
0000016E 41F0 3240              000008D8   1657+         LA    15,=CL8'FILEA'                                               01-DFHECALL
00000172 1B00                              1658+         SR    0,0                                                          01-DFHECALL
00000174 90E0 1000              00000000   1659+         STM   14,0,0(1)                                                    01-DFHECALL
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                          Page   25
   Active Usings: STATR,R3  DFHEIBLK,R11  DFHEISTG,R13
```

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0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                          HLASM R6.0  2013/08/10 20.09
000000178 41E0 3254               000008EC   1660+         LA    14,=A(0)                                                  01-DFHECALL
 0000017C 41F0 D208               00000208   1661+         LA    15,RIDF                                                   01-DFHECALL
 00000180 90EF 100C               0000000C   1662+         STM   14,15,12(1)                                               01-DFHECALL
 00000184 9680 1010      00000010            1663+         OI    16(1),X'80'         LAST ARGUMENT                       01-DFHECALL
 00000188 E3F0 3248 0017          000008E0   1664+         LLGT  15,=V(DFHEG1)                                 @R31410A 01-DFHECALL
 0000018E 0DEF                               1665+         BASR  14,15                                         @R31410A 01-DFHECALL
                                             1666+*****************************************************************
 00000190 D203 D260 B04C 00000260 0000004C   1667          MVC   RESPONSE(4),EIBRESP
                                             1668 *                                  CHECK RESPONSES
                                             1669 *        CLC   RESPONSE,DFHRESP(NOTFND)        DOES THE RECORD EXIST?
 00000196 D503 D260 3258 00000260 000008F0   1670          CLC   RESPONSE,=F'13'
 0000019C A784 023C               00000614   1671          JE    NOTFOUND                        ... NO, NOTIFY USER
                                             1672 *        CLC   RESPONSE,DFHRESP(NORMAL)   WAS THERE AN UNEXPECTED ERROR
 000001A0 D503 D260 3250 00000260 000008E8   1673          CLC   RESPONSE,=F'0'
 000001A6 A774 0241               00000628   1674          JNE   ERRORS                     ... YES, TERMINATE TRANSACTION
 000001AA D505 D208 3272 00000208 0000090A   1675          CLC   RIDF,=C'000000'             READ AND DISCARD REC.
 000001B0 A784 0004               000001B8   1676          JE    NEXTLINE                    POINTED TO BY RIDF ONLY IF
 000001B4 A755 015B               0000046A   1677          BRAS  R5,READNEXT                 THE LO END OF FILE HAS NOT
                                             1678 *                                  BEEN REACHED.
 000001B8                                    1679 NEXTLINE DS    0H
                                             1680 *
                                             1681 *        THE ROUTINE "READNEXT" IS GIVEN CONTROL, AND READS THE NEXT
                                             1682 *        RECORD FROM THE FILE INTO THE FILE AREA.
                                             1683 *
 000001B8 A755 0159               0000046A   1684          BRAS  R5,READNEXT                  READ NEXT RECORD
                                             1685 *
                                             1686 *        THE ACCOUNT NUMBER, NAME, AND AMOUNT ARE MOVED TO THE FIRST
                                             1687 *        LINE OF THE BROWSE MAP AREA.
                                             1688 *
 000001BC D205 D307 D265 00000307 00000265   1689          MVC   NUMBER1O,NUMB                MOVE NUMBER TO MAP
 000001C2 D213 D310 D26B 00000310 0000026B   1690          MVC   NAME1O,NAME                  MOVE NAME TO MAP
 000001C8 D207 D327 D2A3 00000327 000002A3   1691          MVC   AMOUNT1O,AMOUNT              MOVE AMOUNT TO MAP
 000001CE D205 D202 D208 00000202 00000208   1692          MVC   RIDB,RIDF                    RIDB ->EXISTING ACCOUNT NO.
                                             1693 *                                  READ 2ND. RECORD
                                             1694 *
                                             1695 *        THE SAME BASIC COMMANDS ARE REPEATED TO READ AND SET UP THE
                                             1696 *        NEXT THREE LINES. THE SAME FILE AREA IS USED FOR EACH READ.
                                             1697 *
 000001D4 A755 014B               0000046A   1698          BRAS  R5,READNEXT
 000001D8 D205 D332 D265 00000332 00000265   1699          MVC   NUMBER2O,NUMB               MOVE NUMB,NAME,AMOUNT->MAP
 000001DE D213 D33B D26B 0000033B 0000026B   1700          MVC   NAME2O,NAME
 000001E4 D207 D352 D2A3 00000352 000002A3   1701          MVC   AMOUNT2O,AMOUNT
                                             1702 *                                  READ 3RD. RECORD
 000001EA A755 0140               0000046A   1703          BRAS  R5,READNEXT
 000001EE D205 D35D D265 0000035D 00000265   1704          MVC   NUMBER3O,NUMB               MOVE NUMB,NAME,AMOUNT->MAP
 000001F4 D213 D366 D26B 00000366 0000026B   1705          MVC   NAME3O,NAME
 000001FA D207 D37D D2A3 0000037D 000002A3   1706          MVC   AMOUNT3O,AMOUNT
                                             1707 *                                  READ 4TH. RECORD
 00000200 A755 0135               0000046A   1708          BRAS  R5,READNEXT
```

```
 00000204 D205 D388 D265 00000388 00000265   1709          MVC   NUMBER4O,NUMB               MOVE NUMB,NAME,AMOUNT->MAP
 0000020A D213 D391 D26B 00000391 0000026B   1710          MVC   NAME4O,NAME
 00000210 D207 D3A8 D2A3 000003A8 000002A3   1711          MVC   AMOUNT4O,AMOUNT
                                             1712 *
                                             1713 *
                                             1714 *        THE SCREEN IS ERASED AND THE FULL PAGE IS DISPLAYED AT THE
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                                  Page   26
   Active Usings: STATR,R3  DFHEIBLK,R11  DFHEISTG,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                          HLASM R6.0  2013/08/10 20.09
0                                            1715 *        TERMINAL.
                                             1716 *
                                             1717 *        EXEC CICS SEND MAP('DFH£AGC') ERASE RESP(RESPONSE)
                                             1718          DFHECALL =X'1804C000280000000004E204000020',(CHA7,=CL7'DFH£AGC*
                                                           '),(______RF,DFH£AGCO)
                                             1720+*************************************************************************
 00000216                                    1721+         DS    0H                                                        01-DFHECALL
 00000216 4110 D0B0               000000B0   1722+         LA    1,DFHEIPL                                                 01-DFHECALL
 0000021A 41E0 329B               00000933   1723+         LA    14,=X'1804C000280000000004E204000020'                     01-DFHECALL
 0000021E 41F0 32AA               00000942   1724+         LA    15,=CL7'DFH£AGC'                                          01-DFHECALL
 00000222 4100 D2F4               000002F4   1725+         LA    0,DFH£AGCO                                                01-DFHECALL
 00000226 90E0 1000               00000000   1726+         STM   14,0,0(1)                                                 01-DFHECALL
 0000022A 9680 1008      00000008            1727+         OI    8(1),X'80'          LAST ARGUMENT                       01-DFHECALL
 0000022E E3F0 3248 0017          000008E0   1728+         LLGT  15,=V(DFHEG1)                                   @R31410A 01-DFHECALL
 00000234 0DEF                               1729+         BASR  14,15                                           @R31410A 01-DFHECALL
                                             1730+*************************************************************************
 00000236 D203 D260 B04C 00000260 0000004C   1731          MVC   RESPONSE(4),EIBRESP
                                             1732 *        CLC   RESPONSE,DFHRESP(NORMAL)
 0000023C D503 D260 3250 00000260 000008E8   1733          CLC   RESPONSE,=F'0'
 00000242 A774 01F3               00000628   1734          JNE   ERRORS
                                             1735 *                                          RETURN WITH COMMAREA
                                             1736 *
                                             1737 *        CONTROL IS RETURNED TO CICS AWAITING A RESPONSE FROM THE
                                             1738 *        TERMINAL. THE "RETURN" GIVES CICS THE TRANSACTION IDENTIFIER
                                             1739 *        FOR THE NEXT TRANSACTION AT THIS TERMINAL TOGETHER WITH A
                                             1740 *        "COMMAREA" CONTAINING ALL THE INFORMATION THAT THE PROGRAM
                                             1741 *        NEEDS TO BROWSE FORWARD OR BACK FROM THE CURRENT POSITION IN
                                             1742 *        THE FILE. THE "COMMAREA" IS PASSED TO THE NEXT INVOCATION OF
                                             1743 *        THIS PROGRAM.
                                             1744 *
                                             1745 *        EXEC CICS RETURN TRANSID(EIBTRNID)
                                             1746 *             COMMAREA(COMMAREA)
                                             1747 *             LENGTH(13)
                                             1748          DFHECALL =X'0E08E0002800001000',(CHA4,EIBTRNID),(______RF,COMM*
                                                           AREA),(FB_2,=Y(13))
                                             1750+*************************************************************************
 00000246                                    1751+         DS    0H                                                        01-DFHECALL
 00000246 4110 D0B0               000000B0   1752+         LA    1,DFHEIPL                                                 01-DFHECALL
 0000024A 41E0 32B1               00000949   1753+         LA    14,=X'0E08E0002800001000'                                 01-DFHECALL
 0000024E 41F0 B008               00000008   1754+         LA    15,EIBTRNID                                               01-DFHECALL
 00000252 4100 D201               00000201   1755+         LA    0,COMMAREA                                                01-DFHECALL
```

```
 00000256 90E0 1000               00000000   1756+         STM   14,0,0(1)                                                  01-DFHECALL
 0000025A 41E0 3278               00000910   1757+         LA    14,=Y(13)                                                  01-DFHECALL
 0000025E 50E0 100C               0000000C   1758+         ST    14,12(,1)                                                  01-DFHECALL
 00000262 9680 100C      0000000C            1759+         OI    12(1),X'80'         LAST ARGUMENT                          01-DFHECALL
 00000266 E3F0 3248 0017          000008E0   1760+         LLGT  15,=V(DFHEG1)                                    @R31410A 01-DFHECALL
 0000026C 0DEF                               1761+         BASR  14,15                                            @R31410A 01-DFHECALL
                                             1762+*************************************************************************
                                             1763 *************************************************************************
                                             1764 *                                    BUILD PREVIOUS BACK PAGE       *
                                             1765 *************************************************************************
 0000026E                                    1766 PAGEB    DS    0H
                                             1767 *                                        CLEAR MAP
 0000026E A755 00F2               00000452   1768          BRAS  R5,CLEARMAP
                                             1769 *
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                          Page   27
   Active Usings: STATR,R3  DFHEIBLK,R11  DFHEISTG,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                          HLASM R6.0  2013/08/10 20.09
000000272 D501 B018 3264 00000018 000008FC   1770          CLC   EIBCALEN,=H'0'               START BROWSE WHERE WE LEFT
 00000278 A784 0024               000002C0   1771          JE    TESTSTAT                     OFF, IF COMMAREA PRESENT
                                             1772 *        EXEC  CICS STARTBR FILE('FILEA')
                                             1773 *              RIDFLD(RIDB)
                                             1774 *              RESP(RESPONSE)
                                             1775          DFHECALL =X'060CB000280020A000',(CHA8,=CL8'FILEA'),,(FB_2,=A(0*
                                                                )),(______RF,RIDB)
                                             1777+*************************************************************************
 0000027C                                    1778+         DS    0H                                                         01-DFHECALL
 0000027C 4110 D0B0               000000B0   1779+         LA    1,DFHEIPL                                                  01-DFHECALL
 00000280 41E0 3292               0000092A   1780+         LA    14,=X'060CB000280020A000'                                  01-DFHECALL
 00000284 41F0 3240               000008D8   1781+         LA    15,=CL8'FILEA'                                             01-DFHECALL
 00000288 1B00                               1782+         SR    0,0                                                        01-DFHECALL
 0000028A 90E0 1000               00000000   1783+         STM   14,0,0(1)                                                  01-DFHECALL
 0000028E 41E0 3254               000008EC   1784+         LA    14,=A(0)                                                   01-DFHECALL
 00000292 41F0 D202               00000202   1785+         LA    15,RIDB                                                    01-DFHECALL
 00000296 90EF 100C               0000000C   1786+         STM   14,15,12(1)                                                01-DFHECALL
 0000029A 9680 1010      00000010            1787+         OI    16(1),X'80'         LAST ARGUMENT                          01-DFHECALL
 0000029E E3F0 3248 0017          000008E0   1788+         LLGT  15,=V(DFHEG1)                                    @R31410A 01-DFHECALL
 000002A4 0DEF                               1789+         BASR  14,15                                            @R31410A 01-DFHECALL
                                             1790+*************************************************************************
 000002A6 D203 D260 B04C 00000260 0000004C   1791          MVC   RESPONSE(4),EIBRESP
                                             1792 *                                     CHECK RESPONSES
                                             1793 *        CLC   RESPONSE,DFHRESP(NOTFND)      DOES THE RECORD EXIST?
 000002AC D503 D260 3258 00000260 000008F0   1794          CLC   RESPONSE,=F'13'
 000002B2 A784 01B1               00000614   1795          JE    NOTFOUND                  ... NO, NOTIFY USER
                                             1796 *        CLC   RESPONSE,DFHRESP(NORMAL)  WAS THERE AN UNEXPECTED ERROR?
 000002B6 D503 D260 3250 00000260 000008E8   1797          CLC   RESPONSE,=F'0'
 000002BC A774 01B6               00000628   1798          JNE   ERRORS                    ... YES, TERMINATE TRANSACTION
                                             1799 *
 000002C0 95C8 D201      00000201            1800 TESTSTAT CLI   STATUS,C'H'                 READ AND DISCARD POINTED TO
 000002C4 A774 0009               000002D6   1801          JNE   PREVXTRA                   BY RIDB, ONLY IF THE HI END
 000002C8 D226 D3DD 32BA 000003DD 00000952   1802          MVC   MSG1O,=CL(L'MSG1O)'HI END OF FILE'
```

```
 000002CE 92F8 D3DC      000003DC            1803          MVI   MSG1A,DFHBMASB
 000002D2 A7F4 0004               000002DA   1804          J     PREVLINE
                                             1805 *                                       OF FILE HAS NOT BEEN REACHED
 000002D6                                    1806 PREVXTRA DS    0H
 000002D6 A755 00FB               000004CC   1807          BRAS  R5,READPREV
                                             1808 *                                       READ 4 RECS. IN DESCENDING
 000002DA                                    1809 PREVLINE DS    0H                       ORDER
                                             1810 *
                                             1811 *        BACKWARDS BROWSING CALLS THE ROUTINE "READPREV" TO READ THE
                                             1812 *        PREVIOUS RECORD INTO THE FILE AREA. THE RECORD IS THEN STORED
                                             1813 *        IN THE MAP AREA STARTING AT THE BOTTOM LINE. NOTE THERE IS NO
                                             1814 *        NEED FOR AN EXTRA "READPREV" WHEN BROWSING BACK FROM THE HIGH
                                             1815 *        END OF THE FILE. ALSO, IF THE PROGRAM IS PASSED A "COMMAREA",
                                             1816 *        THEN IT IS NECESSARY TO START BROWSING AT THE POINT THE
                                             1817 *        PREVIOUS BROWSE ENDED.
                                             1818 *
 000002DA 92D5 D201      00000201            1819          MVI   STATUS,C'N'
 000002DE A755 00F7               000004CC   1820          BRAS  R5,READPREV
 000002E2 D205 D388 D265 00000388 00000265   1821          MVC   NUMBER4O,NUMB               MOVE NUMBER TO MAP AREA
 000002E8 D213 D391 D26B 00000391 0000026B   1822          MVC   NAME4O,NAME                 MOVE NAME TO MAP AREA
 000002EE D207 D3A8 D2A3 000003A8 000002A3   1823          MVC   AMOUNT4O,AMOUNT             MOVE AMOUNT TO MAP AREA
 000002F4 D205 D208 D202 00000208 00000202   1824          MVC   RIDF,RIDB
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                  Page   28
   Active Usings: STATR,R3  DFHEIBLK,R11  DFHEISTG,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                       HLASM R6.0  2013/08/10 20.09
0                                           1825 *                                        READ PREV. RECORD
 000002FA A755 00E9               000004CC   1826          BRAS  R5,READPREV
 000002FE D205 D35D D265 0000035D 00000265   1827          MVC   NUMBER3O,NUMB               MOVE NUMBER TO MAP AREA
 00000304 D213 D366 D26B 00000366 0000026B   1828          MVC   NAME3O,NAME                 MOVE NAME TO MAP AREA
 0000030A D207 D37D D2A3 0000037D 000002A3   1829          MVC   AMOUNT3O,AMOUNT             MOVE AMOUNT TO MAP AREA
                                             1830 *                                        READ PREV. RECORD
 00000310 A755 00DE               000004CC   1831          BRAS  R5,READPREV
 00000314 D205 D332 D265 00000332 00000265   1832          MVC   NUMBER2O,NUMB               MOVE NUMBER TO MAP AREA
 0000031A D213 D33B D26B 0000033B 0000026B   1833          MVC   NAME2O,NAME                 MOVE NAME TO MAP AREA
 00000320 D207 D352 D2A3 00000352 000002A3   1834          MVC   AMOUNT2O,AMOUNT             MOVE AMOUNT TO MAP AREA
                                             1835 *                                        READ PREV. RECORD
 00000326 A755 00D3               000004CC   1836          BRAS  R5,READPREV
 0000032A D205 D307 D265 00000307 00000265   1837          MVC   NUMBER1O,NUMB               MOVE NUMBER TO MAP AREA
 00000330 D213 D310 D26B 00000310 0000026B   1838          MVC   NAME1O,NAME                 MOVE NAME TO MAP AREA
 00000336 D207 D327 D2A3 00000327 000002A3   1839          MVC   AMOUNT1O,AMOUNT             MOVE AMOUNT TO MAP AREA
                                             1840 *
                                             1841 *        THE SCREEN IS ERASED AND THE FULL PAGE IS DISPLAYED AT THE
                                             1842 *        TERMINAL. CONTROL IS RETURNED TO CICS, ALONG WITH A TRANSAC-
                                             1843 *        TION IDENTIFIER FOR THE NEXT TRANSACTION AT THIS TERMINAL
                                             1844 *        TOGETHER WITH A "COMMAREA".
                                             1845 *
                                             1846 *        EXEC CICS SEND MAP('DFH£AGC') ERASE RESP(RESPONSE)
                                             1847          DFHECALL =X'1804C000280000000004E204000020',(CHA7,=CL7'DFH£AGC*
                                                                ',(______RF,DFH£AGCO)
                                             1849+*****************************************************************
```

```
 0000033C                                1850+         DS    0H                                                        01-DFHECALL
 0000033C 4110 D0B0               000000B0   1851+         LA    1,DFHEIPL                                                 01-DFHECALL
 00000340 41E0 329B               00000933   1852+         LA    14,=X'1804C000280000000004E204000020'                     01-DFHECALL
 00000344 41F0 32AA               00000942   1853+         LA    15,=CL7'DFH£AGC'                                          01-DFHECALL
 00000348 4100 D2F4               000002F4   1854+         LA    0,DFH£AGCO                                                01-DFHECALL
 0000034C 90E0 1000               00000000   1855+         STM   14,0,0(1)                                                 01-DFHECALL
 00000350 9680 1008      00000008            1856+         OI    8(1),X'80'          LAST ARGUMENT                       01-DFHECALL
 00000354 E3F0 3248 0017          000008E0   1857+         LLGT  15,=V(DFHEG1)                                   @R31410A 01-DFHECALL
 0000035A 0DEF                               1858+         BASR  14,15                                           @R31410A 01-DFHECALL
                                             1859+*************************************************************************
 0000035C D203 D260 B04C 00000260 0000004C   1860          MVC   RESPONSE(4),EIBRESP
                                             1861 *        CLC   RESPONSE,DFHRESP(NORMAL)
 00000362 D503 D260 3250 00000260 000008E8   1862          CLC   RESPONSE,=F'0'
 00000368 A774 0160               00000628   1863          JNE   ERRORS
                                             1864 *                                        RETURN CONTROL AND COMMAREA
                                             1865 *        EXEC  CICS RETURN
                                             1866 *              TRANSID(EIBTRNID)
                                             1867 *              COMMAREA(COMMAREA) LENGTH(13)
                                             1868          DFHECALL =X'0E08E0002800001000',(CHA4,EIBTRNID),(______RF,COMM*
                                                           AREA),(FB_2,=Y(13))
                                             1870+*************************************************************************
 0000036C                                    1871+         DS    0H                                                        01-DFHECALL
 0000036C 4110 D0B0               000000B0   1872+         LA    1,DFHEIPL                                                 01-DFHECALL
 00000370 41E0 32B1               00000949   1873+         LA    14,=X'0E08E0002800001000'                                 01-DFHECALL
 00000374 41F0 B008               00000008   1874+         LA    15,EIBTRNID                                               01-DFHECALL
 00000378 4100 D201               00000201   1875+         LA    0,COMMAREA                                                01-DFHECALL
 0000037C 90E0 1000               00000000   1876+         STM   14,0,0(1)                                                 01-DFHECALL
 00000380 41E0 3278               00000910   1877+         LA    14,=Y(13)                                                 01-DFHECALL
 00000384 50E0 100C               0000000C   1878+         ST    14,12(,1)                                                 01-DFHECALL
 00000388 9680 100C      0000000C            1879+         OI    12(1),X'80'         LAST ARGUMENT                       01-DFHECALL
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                                 Page   29
   Active Usings: STATR,R3  DFHEIBLK,R11  DFHEISTG,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                          HLASM R6.0  2013/08/10 20.09
00000038C E3F0 3248 0017          000008E0   1880+         LLGT  15,=V(DFHEG1)                                   @R31410A 01-DFHECALL
 00000392 0DEF                               1881+         BASR  14,15                                           @R31410A 01-DFHECALL
                                             1882+*************************************************************************
                                             1883 *************************************************************************
                                             1884 *                                    RECEIVE NEXT PAGING REQUEST    *
                                             1885 *************************************************************************
 00000394                                    1886 RECEIVE  DS    0H
                                             1887 *
                                             1888 *        THIS CODE GAINS CONTROL WHEN THE PROGRAM IS PASSED A
                                             1889 *        "COMMAREA". A "RECEIVE" COMMAND IS ISSUED TO RETRIEVE THE
                                             1890 *        OPERATOR INSTRUCTION. THE PROGRAM EXPLICITLY TESTS TO SEE
                                             1891 *        IF THE "CLEAR", "PF1", "PF2", "F" OR "B" WAS PRESSED.
                                             1892 *        ANY OTHER TERMINAL RESPONSE IS IGNORED.
                                             1893 *
 00000394 E340 D098 0004          00000098   1894          LG    COMPTR,DFHEICAP              UPDATE RIDF,RIDB,STATUS
 0000039A D20C D201 4000 00000201 00000000   1895          MVC   COMMAREA,0(COMPTR)           WITH DATA FROM COMMAREA
                                             1896 *        EXEC CICS RECEIVE MAP('DFH£AGC') RESP(RESPONSE)
```

```
                                        1897          DFHECALL =X'1802C000280000000040900000020',(CHA7,=CL7'DFH£AGC*
                                                            '),(_______RF,DFH£AGCI)
                                        1899+*************************************************************************
 000003A0                               1900+         DS    0H                                                    01-DFHECALL
 000003A0 4110 D0B0          000000B0   1901+         LA    1,DFHEIPL                                             01-DFHECALL
 000003A4 41E0 327C          00000914   1902+         LA    14,=X'1802C000280000000040900000020'                  01-DFHECALL
 000003A8 41F0 32AA          00000942   1903+         LA    15,=CL7'DFH£AGC'                                      01-DFHECALL
 000003AC 4100 D2F4          000002F4   1904+         LA    0,DFH£AGCI                                            01-DFHECALL
 000003B0 90E0 1000          00000000   1905+         STM   14,0,0(1)                                             01-DFHECALL
 000003B4 9680 1008  00000008           1906+         OI    8(1),X'80'          LAST ARGUMENT                     01-DFHECALL
 000003B8 E3F0 3248 0017     000008E0   1907+         LLGT  15,=V(DFHEG1)                                 @R31410A 01-DFHECALL
 000003BE 0DEF                          1908+         BASR  14,15                                         @R31410A 01-DFHECALL
                                        1909+*************************************************************************
 000003C0 D203 D260 B04C 00000260 0000004C 1910       MVC   RESPONSE(4),EIBRESP
 000003C6 956D B01A  0000001A           1911          CLI   EIBAID,DFHCLEAR             WAS CLEAR KEY PRESSED?
 000003CA A784 012A          0000061E   1912          JE    SMSG                        ... YES, RE-DISPLAY MAP
 000003CE 95F1 B01A  0000001A           1913          CLI   EIBAID,DFHPF1              WAS PF1 PRESSED?
 000003D2 A784 FEC3          00000158   1914          JE    PAGEF                       ... YES, SHOW NEXT 4 RECS.
 000003D6 95F2 B01A  0000001A           1915          CLI   EIBAID,DFHPF2              WAS PF2 PRESSED?
 000003DA A784 FF4A          0000026E   1916          JE    PAGEB                       ... YES, SHOW PREV. 4 RECS.
                                        1917 *        CLC   RESPONSE,DFHRESP(MAPFAIL)       MAPFAIL ERROR?
 000003DE D503 D260 324C 00000260 000008E4 1918       CLC   RESPONSE,=F'36'
 000003E4 A784 011D          0000061E   1919          JE    SMSG                        ... YES, REDISPLAY MAP
                                        1920 *        CLC   RESPONSE,DFHRESP(NORMAL)
 000003E8 D503 D260 3250 00000260 000008E8 1921       CLC   RESPONSE,=F'0'
 000003EE A774 011D          00000628   1922          JNE   ERRORS
 000003F2 95C6 D303  00000303           1923          CLI   DIRI,C'F'                   PAGE FORWARD REQUIRED?
 000003F6 A784 FEB1          00000158   1924          JE    PAGEF                       ..YES, GO TO PAGEF ROUTINE
 000003FA 95C2 D303  00000303           1925          CLI   DIRI,C'B'                   PAGE BACK REQUIRED?
 000003FE A784 FF38          0000026E   1926          JE    PAGEB                       ..YES, GO TO PAGEB ROUTINE
                                        1927 *                                          ..NO,IGNORE -RESET KEYBOARD
                                        1928 *        EXEC CICS SEND CONTROL
                                        1929 *             FREEKB FRSET RESP(RESPONSE)
                                        1930          DFHECALL =X'1812000028000C30000084004000021'
                                        1932+*************************************************************************
 00000402                               1933+         DS    0H                                                    01-DFHECALL
 00000402 4110 D0B0          000000B0   1934+         LA    1,DFHEIPL                                             01-DFHECALL
 00000406 41E0 32E1          00000979   1935+         LA    14,=X'1812000028000C30000084004000021'                01-DFHECALL
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                  Page   30
   Active Usings: STATR,R3  DFHEIBLK,R11  DFHEISTG,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                    HLASM R6.0  2013/08/10 20.09
0000040A 50E0 1000          00000000   1936+         ST    14,0(,1)                                              01-DFHECALL
 0000040E 9680 1000  00000000           1937+         OI    0(1),X'80'          LAST ARGUMENT                     01-DFHECALL
 00000412 E3F0 3248 0017     000008E0   1938+         LLGT  15,=V(DFHEG1)                                 @R31410A 01-DFHECALL
 00000418 0DEF                          1939+         BASR  14,15                                         @R31410A 01-DFHECALL
                                        1940+*************************************************************************
 0000041A D203 D260 B04C 00000260 0000004C 1941       MVC   RESPONSE(4),EIBRESP
                                        1942 *        CLC   RESPONSE,DFHRESP(NORMAL)
 00000420 D503 D260 3250 00000260 000008E8 1943       CLC   RESPONSE,=F'0'
 00000426 A774 0101          00000628   1944          JNE   ERRORS
```

```
                                        1945 *                                      RETURN CONTROL AND COMMAREA
                                        1946 *        EXEC CICS RETURN TRANSID(EIBTRNID)
                                        1947 *             COMMAREA(COMMAREA)
                                        1948 *             LENGTH(13)
                                        1949          DFHECALL =X'0E08E0002800001000',(CHA4,EIBTRNID),(______RF,COMM*
                                              AREA),(FB_2,=Y(13))
                                        1951+*************************************************************************
 0000042A                               1952+         DS    0H                                                    01-DFHECALL
 0000042A 4110 D0B0          000000B0   1953+         LA    1,DFHEIPL                                             01-DFHECALL
 0000042E 41E0 32B1          00000949   1954+         LA    14,=X'0E08E0002800001000'                             01-DFHECALL
 00000432 41F0 B008          00000008   1955+         LA    15,EIBTRNID                                           01-DFHECALL
 00000436 4100 D201          00000201   1956+         LA    0,COMMAREA                                            01-DFHECALL
 0000043A 90E0 1000          00000000   1957+         STM   14,0,0(1)                                             01-DFHECALL
 0000043E 41E0 3278          00000910   1958+         LA    14,=Y(13)                                             01-DFHECALL
 00000442 50E0 100C          0000000C   1959+         ST    14,12(,1)                                             01-DFHECALL
 00000446 9680 100C      0000000C       1960+         OI    12(1),X'80'         LAST ARGUMENT                     01-DFHECALL
 0000044A E3F0 3248 0017     000008E0   1961+         LLGT  15,=V(DFHEG1)                                 @R31410A 01-DFHECALL
 00000450 0DEF                          1962+         BASR  14,15                                         @R31410A 01-DFHECALL
                                        1963+*************************************************************************
                                        1964 *************************************************************************
                                        1965 *                  CLEAR MAP USED TO DISPLAY RECORDS, DFH£AGCO         *
                                        1966 *************************************************************************
 00000452                               1967 CLEARMAP DS    0H
                                        1968 *
                                        1969 *        THIS ROUTINE CLEARS THE MAP USED TO DISPLAY THE BROWSED
                                        1970 *        RECORDS.
                                        1971 *
 00000452 4160 D2F4          000002F4   1972          LA    6,DFH£AGCO                  R6->START OF MAP DFH£AGC
 00000456 4170 013A          0000013A   1973          LA    7,(DFH£AGCE-DFH£AGCO)       R7->LENGTH OF DFH£AGC
 0000045A 4180 D200          00000200   1974          LA    8,HEXZERO                   R8-> X'00'
 0000045E 4190 0001          00000001   1975          LA    9,L'HEXZERO                 R9-> LENGTH OF HEXZERO
 00000462 BF94 D200          00000200   1976          ICM   9,B'100',HEXZERO            X'00' INTO TOP BYTE OF R9
 00000466 0E68                          1977          MVCL  6,8                         MOVE X'00' INTO DFH£AGCO
 00000468 07F5                          1978          BR    R5                          RETURN TO CALLING ROUTINE
                                        1979 *************************************************************************
                                        1980 *                  READ NEXT RECORD                                    *
                                        1981 *************************************************************************
 0000046A                               1982 READNEXT DS    0H
                                        1983 *
                                        1984 *        THE ROUTINE "READNEXT" READS THE NEXT RECORD FROM THE FILE,
                                        1985 *        WITH RESPECT TO THE KEY CONTAINED IN "RIDF". THE RESPONSE IS
                                        1986 *        CHECKED AND IF "NORMAL" THEN CONTROL IS PASSED BACK TO THE
                                        1987 *        CALLING ROUTINE.
                                        1988 *
                                        1989 *        EXEC CICS READNEXT
                                        1990 *             INTO(FILEA)
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                          Page   31
   Active Usings: STATR,R3  DFHEIBLK,R11  DFHEISTG,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
0                                       1991 *             FILE('FILEA')
```

```
                                                1992 *              RIDFLD(RIDF)
                                                1993 *              RESP(RESPONSE)
                                                1994          DFHECALL =X'060EF400280000B000',(CHA8,=CL8'FILEA'),(______RF,F*
                                                                    ILEA),(FB_2__RF,=Y(L'FILEA)),(______RF,RIDF),,(FB_2,=A(0*
                                                                    ))
                                                1996+*****************************************************************
0000046A                                        1997+         DS    0H                                                  01-DFHECALL
0000046A 4110 D0B0               000000B0       1998+         LA    1,DFHEIPL                                           01-DFHECALL
0000046E 41E0 32F0               00000988       1999+         LA    14,=X'060EF400280000B000'                           01-DFHECALL
00000472 41F0 3240               000008D8       2000+         LA    15,=CL8'FILEA'                                      01-DFHECALL
00000476 4100 D264               00000264       2001+         LA    0,FILEA                                             01-DFHECALL
0000047A 90E0 1000               00000000       2002+         STM   14,0,0(1)                                           01-DFHECALL
0000047E D201 D0AA 327A 000000AA 00000912       2003+         MVC   DFHEIV00(2),=Y(L'FILEA)  MOVE THE LITERAL TO A TEMP.    X01-DFHECALL
                                                  +                                                       @17611 @P2C
00000484 41E0 D0AA               000000AA       2004+         LA    14,DFHEIV00              USE THE TEMP FOR THE CALL      X01-DFHECALL
                                                  +                                                       @17611 @P2C
00000488 41F0 D208               00000208       2005+         LA    15,RIDF                                             01-DFHECALL
0000048C 1B00                                   2006+         SR    0,0                                                 01-DFHECALL
0000048E 90E0 100C               0000000C       2007+         STM   14,0,12(1)                                          01-DFHECALL
00000492 41E0 3254               000008EC       2008+         LA    14,=A(0)                                            01-DFHECALL
00000496 50E0 1018               00000018       2009+         ST    14,24(,1)                                           01-DFHECALL
0000049A 9680 1018      00000018                2010+         OI    24(1),X'80'         LAST ARGUMENT                   01-DFHECALL
0000049E E3F0 3248 0017          000008E0       2011+         LLGT  15,=V(DFHEG1)                                 @R31410A 01-DFHECALL
000004A4 0DEF                                   2012+         BASR  14,15                                         @R31410A 01-DFHECALL
                                                2013+*****************************************************************
000004A6 D203 D260 B04C 00000260 0000004C       2014          MVC   RESPONSE(4),EIBRESP
                                                2015 *                                      CHECK RESPONSES TO COMMAND
                                                2016 *        CLC   RESPONSE,DFHRESP(ENDFILE)       END OF FILE?
000004AC D503 D260 325C 00000260 000008F4       2017          CLC   RESPONSE,=F'20'
000004B2 A784 003E               0000052E       2018          JE    TOOHIGH                        ...YES, NOTIFY USER
                                                2019 *        CLC   RESPONSE,DFHRESP(NOTFND)        DOES THE RECORD EXIST?
000004B6 D503 D260 3258 00000260 000008F0       2020          CLC   RESPONSE,=F'13'
000004BC A784 00AC               00000614       2021          JE    NOTFOUND                       ...NO, NOTIFY USER
                                                2022 *        CLC   RESPONSE,DFHRESP(NORMAL)        UNEXPECTED ERROR?
000004C0 D503 D260 3250 00000260 000008E8       2023          CLC   RESPONSE,=F'0'
000004C6 A774 00B1               00000628       2024          JNE   ERRORS                         ...YES, TERMINATE TRANS.
000004CA 07F5                                   2025          BR    R5                            OK,RETURN TO CALLING ROUTINE
                                                2026 *****************************************************************
                                                2027 *                  READ PREVIOUS RECORD                         *
                                                2028 *****************************************************************
000004CC                                        2029 READPREV DS    0H
                                                2030 *
                                                2031 *        THE ROUTINE "READPREV" READS THE PREV. RECORD FROM THE FILE,
                                                2032 *        WITH RESPECT TO THE KEY CONTAINED IN "RIDB". THE RESPONSE IS
                                                2033 *        CHECKED AND IF "NORMAL" THEN CONTROL IS PASSED BACK TO THE
                                                2034 *        CALLING ROUTINE.
                                                2035 *
                                                2036 *        EXEC CICS READPREV
                                                2037 *             INTO(FILEA)
                                                2038 *             FILE('FILEA')
```

```
                                               2039 *              RIDFLD(RIDB)
                                               2040 *              RESP(RESPONSE)
                                               2041          DFHECALL =X'0610F400280000B400',(CHA8,=CL8'FILEA'),(______RF,F*
                                                                   ILEA),(FB_2__RF,=Y(L'FILEA)),(______RF,RIDB),,(FB_2,=A(0*
1          DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                                          Page   32
   Active Usings: STATR,R3  DFHEIBLK,R11  DFHEISTG,R13
0  Loc     Object Code      Addr1    Addr2    Stmt  Source Statement                          HLASM R6.0  2013/08/10 20.09
0                                                                  ))
                                               2043+*********************************************************************
 000004CC                                      2044+         DS    0H                                                    01-DFHECALL
 000004CC 4110 D0B0                  000000B0  2045+         LA    1,DFHEIPL                                             01-DFHECALL
 000004D0 41E0 32F9                  00000991  2046+         LA    14,=X'0610F400280000B400'                             01-DFHECALL
 000004D4 41F0 3240                  000008D8  2047+         LA    15,=CL8'FILEA'                                        01-DFHECALL
 000004D8 4100 D264                  00000264  2048+         LA    0,FILEA                                               01-DFHECALL
 000004DC 90E0 1000                  00000000  2049+         STM   14,0,0(1)                                             01-DFHECALL
 000004E0 D201 D0AA 327A 000000AA 00000912  2050+         MVC   DFHEIV00(2),=Y(L'FILEA)  MOVE THE LITERAL TO A TEMP.    X01-DFHECALL
                                                 +                                                          @17611 @P2C
 000004E6 41E0 D0AA                  000000AA  2051+         LA    14,DFHEIV00             USE THE TEMP FOR THE CALL      X01-DFHECALL
                                                 +                                                          @17611 @P2C
 000004EA 41F0 D202                  00000202  2052+         LA    15,RIDB                                               01-DFHECALL
 000004EE 1B00                                 2053+         SR    0,0                                                   01-DFHECALL
 000004F0 90E0 100C                  0000000C  2054+         STM   14,0,12(1)                                            01-DFHECALL
 000004F4 41E0 3254                  000008EC  2055+         LA    14,=A(0)                                              01-DFHECALL
 000004F8 50E0 1018                  00000018  2056+         ST    14,24(,1)                                             01-DFHECALL
 000004FC 9680 1018       00000018             2057+         OI    24(1),X'80'         LAST ARGUMENT                     01-DFHECALL
 00000500 E3F0 3248 0017             000008E0  2058+         LLGT  15,=V(DFHEG1)                                @R31410A 01-DFHECALL
 00000506 0DEF                                 2059+         BASR  14,15                                        @R31410A 01-DFHECALL
                                               2060+*********************************************************************
 00000508 D203 D260 B04C 00000260 0000004C  2061          MVC   RESPONSE(4),EIBRESP
                                               2062 *                                     CHECK RESPONSES TO COMMAND
                                               2063 *        CLC   RESPONSE,DFHRESP(ENDFILE)       END OF FILE?
 0000050E D503 D260 325C 00000260 000008F4  2064          CLC   RESPONSE,=F'20'
 00000514 A784 0045                  0000059E  2065          JE    TOOLOW                       ...YES, NOTIFY USER
                                               2066 *        CLC   RESPONSE,DFHRESP(NOTFND)        DOES THE RECORD EXIST?
 00000518 D503 D260 3258 00000260 000008F0  2067          CLC   RESPONSE,=F'13'
 0000051E A784 007B                  00000614  2068          JE    NOTFOUND                     ...NO, NOTIFY USER
                                               2069 *        CLC   RESPONSE,DFHRESP(NORMAL)        UNEXPECTED ERROR?
 00000522 D503 D260 3250 00000260 000008E8  2070          CLC   RESPONSE,=F'0'
 00000528 A774 0080                  00000628  2071          JNE   ERRORS                       ...YES, TERMINATE TRANS.
 0000052C 07F5                                 2072          BR    R5                          OK,RETURN TO CALLING ROUTINE
                                               2073 *********************************************************************
                                               2074 *                                  HANDLE END OF FILE CONDITIONS       *
                                               2075 *********************************************************************
 0000052E                                      2076 TOOHIGH  DS    0H
                                               2077 *
                                               2078 *        IF THE END OF FILE IS REACHED ANY RECORDS READ TO THAT POINT
                                               2079 *        ARE DISPLAYED TOGETHER WITH A HIGHLIGHTED MESSAGE "HI END OF
                                               2080 *        FILE".
                                               2081 *
 0000052E 92C8 D201       00000201             2082          MVI   STATUS,C'H'                  SET STATUS 'HI END'
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 00000532 D205 D202 D208 00000202 00000208   2083          MVC   RIDB,RIDF
 00000538 9240 D303      00000303            2084          MVI   DIRO,X'40'
 0000053C D226 D3DD 32BA 000003DD 00000952   2085          MVC   MSG1O,=CL(L'MSG1O)'HI END OF FILE'
 00000542 92F8 D3DC      000003DC            2086          MVI   MSG1A,DFHBMASB                                  MSG=BRT
                                             2087 *        EXEC CICS SEND MAP('DFH£AGC') ERASE RESP(RESPONSE)
                                             2088          DFHECALL =X'1804C000280000000004E204000020',(CHA7,=CL7'DFH£AGC*
                                                           '),(______RF,DFH£AGCO)
                                             2090+*************************************************************************
 00000546                                    2091+         DS    0H                                                        01-DFHECALL
 00000546 4110 D0B0              000000B0    2092+         LA    1,DFHEIPL                                                 01-DFHECALL
 0000054A 41E0 329B              00000933    2093+         LA    14,=X'1804C000280000000004E204000020'                     01-DFHECALL
 0000054E 41F0 32AA              00000942    2094+         LA    15,=CL7'DFH£AGC'                                          01-DFHECALL
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                  Page   33
   Active Usings: STATR,R3  DFHEIBLK,R11  DFHEISTG,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
000000552 4100 D2F4              000002F4    2095+         LA    0,DFH£AGCO                                                01-DFHECALL
 00000556 90E0 1000              00000000    2096+         STM   14,0,0(1)                                                 01-DFHECALL
 0000055A 9680 1008      00000008            2097+         OI    8(1),X'80'          LAST ARGUMENT                       01-DFHECALL
 0000055E E3F0 3248 0017          000008E0   2098+         LLGT  15,=V(DFHEG1)                                   @R31410A  01-DFHECALL
 00000564 0DEF                               2099+         BASR  14,15                                           @R31410A  01-DFHECALL
                                             2100+*************************************************************************
 00000566 D203 D260 B04C 00000260 0000004C   2101          MVC   RESPONSE(4),EIBRESP
                                             2102 *        CLC   RESPONSE,DFHRESP(NORMAL)
 0000056C D503 D260 3250 00000260 000008E8   2103          CLC   RESPONSE,=F'0'
 00000572 A774 005B              00000628    2104          JNE   ERRORS
                                             2105 *                                        RETURN WITH COMMAREA
                                             2106 *        EXEC CICS RETURN TRANSID(EIBTRNID)
                                             2107 *             COMMAREA(COMMAREA)
                                             2108 *             LENGTH(13)
                                             2109          DFHECALL =X'0E08E0002800001000',(CHA4,EIBTRNID),(______RF,COMM*
                                                           AREA),(FB_2,=Y(13))
                                             2111+*************************************************************************
 00000576                                    2112+         DS    0H                                                        01-DFHECALL
 00000576 4110 D0B0              000000B0    2113+         LA    1,DFHEIPL                                                 01-DFHECALL
 0000057A 41E0 32B1              00000949    2114+         LA    14,=X'0E08E0002800001000'                                 01-DFHECALL
 0000057E 41F0 B008              00000008    2115+         LA    15,EIBTRNID                                               01-DFHECALL
 00000582 4100 D201              00000201    2116+         LA    0,COMMAREA                                                01-DFHECALL
 00000586 90E0 1000              00000000    2117+         STM   14,0,0(1)                                                 01-DFHECALL
 0000058A 41E0 3278              00000910    2118+         LA    14,=Y(13)                                                 01-DFHECALL
 0000058E 50E0 100C              0000000C    2119+         ST    14,12(,1)                                                 01-DFHECALL
 00000592 9680 100C      0000000C            2120+         OI    12(1),X'80'         LAST ARGUMENT                       01-DFHECALL
 00000596 E3F0 3248 0017          000008E0   2121+         LLGT  15,=V(DFHEG1)                                   @R31410A  01-DFHECALL
 0000059C 0DEF                               2122+         BASR  14,15                                           @R31410A  01-DFHECALL
                                             2123+*************************************************************************
                                             2124 *                                        RETURN WITH COMMAREA
 0000059E                                    2125 TOOLOW   DS    0H
                                             2126 *
                                             2127 *        IF THE START OF FILE IS REACHED ON A "READPREV" (BACKWARD
                                             2128 *        BROWSE) THEN THE "ENDFILE" CONDITION OCCURS AND "TOOLOW"
                                             2129 *        GETS CONTROL. ANY RECORDS READ UP TO THAT POINT ARE DISPLAYED,
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                                        2130 *        TOGETHER WITH A HIGHLIGHTED MESSAGE "LO END OF FILE".
                                        2131 *
 0000059E 92D3 D201      00000201       2132          MVI   STATUS,C'L'                  SET STATUS 'LO END'
 000005A2 D205 D208 3272 00000208 0000090A 2133        MVC   RIDF,=C'000000'
 000005A8 D205 D202 3272 00000202 0000090A 2134        MVC   RIDB,=C'000000'
 000005AE 9240 D303      00000303       2135          MVI   DIRO,X'40'
 000005B2 92F8 D406      00000406       2136          MVI   MSG2A,DFHBMASB                                  MSG=BRT
 000005B6 D226 D407 3302 00000407 0000099A 2137        MVC   MSG2O,=CL(L'MSG2O)'LO END OF FILE'
                                        2138 *        EXEC CICS SEND MAP('DFH£AGC') ERASE RESP(RESPONSE)
                                        2139          DFHECALL =X'1804C000280000000004E204000020',(CHA7,=CL7'DFH£AGC*
                                                      '),(______RF,DFH£AGCO)
                                        2141+*************************************************************************
 000005BC                               2142+         DS    0H                                                  01-DFHECALL
 000005BC 4110 D0B0            000000B0 2143+         LA    1,DFHEIPL                                           01-DFHECALL
 000005C0 41E0 329B            00000933 2144+         LA    14,=X'1804C000280000000004E204000020'               01-DFHECALL
 000005C4 41F0 32AA            00000942 2145+         LA    15,=CL7'DFH£AGC'                                    01-DFHECALL
 000005C8 4100 D2F4            000002F4 2146+         LA    0,DFH£AGCO                                          01-DFHECALL
 000005CC 90E0 1000            00000000 2147+         STM   14,0,0(1)                                           01-DFHECALL
 000005D0 9680 1008      00000008       2148+         OI    8(1),X'80'          LAST ARGUMENT                 01-DFHECALL
 000005D4 E3F0 3248 0017           000008E0 2149+      LLGT  15,=V(DFHEG1)                                @R31410A 01-DFHECALL
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                 Page   34
   Active Usings: STATR,R3  DFHEIBLK,R11  DFHEISTG,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                HLASM R6.0  2013/08/10 20.09
0000005DA 0DEF                         2150+         BASR  14,15                                        @R31410A 01-DFHECALL
                                        2151+*************************************************************************
 000005DC D203 D260 B04C 00000260 0000004C 2152        MVC   RESPONSE(4),EIBRESP
                                        2153 *        CLC   RESPONSE,DFHRESP(NORMAL)
 000005E2 D503 D260 3250 00000260 000008E8 2154        CLC   RESPONSE,=F'0'
 000005E8 A774 0020            00000628 2155          JNE   ERRORS
                                        2156 *
                                        2157 *        EXEC CICS RETURN TRANSID(EIBTRNID)
                                        2158 *             COMMAREA(COMMAREA)
                                        2159 *             LENGTH(13)
                                        2160          DFHECALL =X'0E08E0002800001000',(CHA4,EIBTRNID),(______RF,COMM*
                                                      AREA),(FB_2,=Y(13))
                                        2162+*************************************************************************
 000005EC                               2163+         DS    0H                                                  01-DFHECALL
 000005EC 4110 D0B0            000000B0 2164+         LA    1,DFHEIPL                                           01-DFHECALL
 000005F0 41E0 32B1            00000949 2165+         LA    14,=X'0E08E0002800001000'                           01-DFHECALL
 000005F4 41F0 B008            00000008 2166+         LA    15,EIBTRNID                                         01-DFHECALL
 000005F8 4100 D201            00000201 2167+         LA    0,COMMAREA                                          01-DFHECALL
 000005FC 90E0 1000            00000000 2168+         STM   14,0,0(1)                                           01-DFHECALL
 00000600 41E0 3278            00000910 2169+         LA    14,=Y(13)                                           01-DFHECALL
 00000604 50E0 100C            0000000C 2170+         ST    14,12(,1)                                           01-DFHECALL
 00000608 9680 100C      0000000C       2171+         OI    12(1),X'80'         LAST ARGUMENT                 01-DFHECALL
 0000060C E3F0 3248 0017           000008E0 2172+      LLGT  15,=V(DFHEG1)                                @R31410A 01-DFHECALL
 00000612 0DEF                          2173+         BASR  14,15                                        @R31410A 01-DFHECALL
                                        2174+*************************************************************************
                                        2175 *************************************************************************
                                        2176 *                                HANDLE GENERAL CONDITIONS          *
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                                        2177 ********************************************************************
 00000614                               2178 NOTFOUND DS    0H
                                        2179 *
                                        2180 *        IF THE "NOTFND" CONDITION OCCURS AT THE START BROWSE, THE
                                        2181 *        MESSAGE "END OF FILE - PLEASE RESTART" IS MOVED TO "MESSAGES"
                                        2182 *        FOR DISPLAY ON THE OPERATOR INSTRUCTION SCREEN.
                                        2183 *
 00000614 D24F D20E 3150 0000020E 000007E8 2184         MVC   MESSAGES,=CL(L'MESSAGES)'END OF FILE - PLEASE RESTART '
 0000061A A7F4 0018               0000064A 2185         J     AMNU
                                        2186 *
 0000061E                               2187 SMSG     DS    0H
                                        2188 *
                                        2189 *        IF THE "CLEAR" KEY IS PRESSED OR WHEN A "MAPFAIL" OCCURS A
                                        2190 *        MESSAGE "PRESS CLEAR TO EXIT" IS MOVED TO "MESSAGES" FOR
                                        2191 *        DISPLAY ON THE OPERATOR INSTRUCTION SCREEN.
                                        2192 *
 0000061E D24F D20E 31A0 0000020E 00000838 2193         MVC   MESSAGES,=CL(L'MESSAGES)'PRESS CLEAR TO EXIT'
 00000624 A7F4 0013               0000064A 2194         J     AMNU
                                        2195 *
 00000628                               2196 ERRORS   DS    0H
                                        2197 *
                                        2198 *        IN SOME ERROR SITUATIONS A DUMP IS TAKEN AND THE MESSAGE
                                        2199 *        "TRANSACTION TERMINATED" IS MOVED TO "MESSAGES" FOR DISPLAY
                                        2200 *        ON THE OPERATOR INSTRUCTION SCREEN.
                                        2201 *
                                        2202 *        EXEC CICS DUMP DUMPCODE('ERRS')
                                        2203          DFHECALL =X'1C028000280000FE00',(CHA4,=CL4'ERRS')
                                        2205+********************************************************************
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                          Page   35
   Active Usings: STATR,R3  DFHEIBLK,R11  DFHEISTG,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
000000628                              2206+         DS    0H                                                      01-DFHECALL
 00000628 4110 D0B0               000000B0 2207+         LA    1,DFHEIPL                                         01-DFHECALL
 0000062C 41E0 3329               000009C1 2208+         LA    14,=X'1C028000280000FE00'                         01-DFHECALL
 00000630 41F0 3260               000008F8 2209+         LA    15,=CL4'ERRS'                                     01-DFHECALL
 00000634 90EF 1000               00000000 2210+         STM   14,15,0(1)                                        01-DFHECALL
 00000638 9680 1004      00000004         2211+         OI    4(1),X'80'          LAST ARGUMENT                 01-DFHECALL
 0000063C E3F0 3248 0017          000008E0 2212+         LLGT  15,=V(DFHEG1)                               @R31410A 01-DFHECALL
 00000642 0DEF                            2213+         BASR  14,15                                       @R31410A 01-DFHECALL
                                        2214+********************************************************************
 00000644 D24F D20E 31F0 0000020E 00000888 2215         MVC   MESSAGES,=CL(L'MESSAGES)'TRANSACTION TERMINATED'
                                        2216 ********************************************************************
                                        2217 *                                  DISPLAY GENERAL MENU THEN EXIT     *
                                        2218 ********************************************************************
 0000064A                               2219 AMNU     DS    0H
                                        2220 *
                                        2221 *        THIS CODE DISPLAYS THE OPERATOR INSTRUCTION MENU WITH A
                                        2222 *        MESSAGE WHICH HAS BEEN STORED IN "MESSAGES".
                                        2223 *
 0000064A D73E D2B4 D2B4 000002B4 000002B4 2224         XC    DFH£AGAO(DFH£AGAE-DFH£AGAO),DFH£AGAO   CLEAR MAP A
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00000650 92F8 D2C2      000002C2            2225          MVI   MSGA,DFHBMASB                          BRIGHTEN MESSAGE
00000654 D226 D2C3 D20E 000002C3 0000020E   2226          MVC   MSGO,MESSAGES                          MOVE MSGS TO MAP
                                            2227 *        EXEC CICS SEND MAP('DFH£AGA') ERASE RESP(RESPONSE)
                                            2228          DFHECALL =X'1804C000280000000004E204000020',(CHA7,=CL7'DFH£AGA*
                                                                ')),(______RF,DFH£AGAO)
                                            2230+*************************************************************************
0000065A                                    2231+         DS    0H                                                       01-DFHECALL
0000065A 4110 D0B0              000000B0    2232+         LA    1,DFHEIPL                                                01-DFHECALL
0000065E 41E0 329B              00000933    2233+         LA    14,=X'1804C000280000000004E204000020'                    01-DFHECALL
00000662 41F0 328B              00000923    2234+         LA    15,=CL7'DFH£AGA'                                         01-DFHECALL
00000666 4100 D2B4              000002B4    2235+         LA    0,DFH£AGAO                                               01-DFHECALL
0000066A 90E0 1000              00000000    2236+         STM   14,0,0(1)                                                01-DFHECALL
0000066E 9680 1008      00000008            2237+         OI    8(1),X'80'          LAST ARGUMENT                      01-DFHECALL
00000672 E3F0 3248 0017         000008E0    2238+         LLGT  15,=V(DFHEG1)                                  @R31410A 01-DFHECALL
00000678 0DEF                               2239+         BASR  14,15                                          @R31410A 01-DFHECALL
                                            2240+*************************************************************************
0000067A D203 D260 B04C 00000260 0000004C   2241          MVC   RESPONSE(4),EIBRESP
                                            2242 *
                                            2243 *        THE PROGRAM TERMINATES BY RETURNING TO CICS.
                                            2244 *
                                            2245 *        EXEC CICS RETURN
                                            2246          DFHECALL =X'0E0800002800001000'
                                            2248+*************************************************************************
00000680                                    2249+         DS    0H                                                       01-DFHECALL
00000680 4110 D0B0              000000B0    2250+         LA    1,DFHEIPL                                                01-DFHECALL
00000684 41E0 3332              000009CA    2251+         LA    14,=X'0E0800002800001000'                                01-DFHECALL
00000688 50E0 1000              00000000    2252+         ST    14,0(,1)                                                 01-DFHECALL
0000068C 9680 1000      00000000            2253+         OI    0(1),X'80'          LAST ARGUMENT                      01-DFHECALL
00000690 E3F0 3248 0017         000008E0    2254+         LLGT  15,=V(DFHEG1)                                  @R31410A 01-DFHECALL
00000696 0DEF                               2255+         BASR  14,15                                          @R31410A 01-DFHECALL
                                            2256+*************************************************************************
                                            2257 *************************************************************************
                                            2258 *                                   DEFINE THE 256 BYTE TRANSLATE TABLE*
                                            2259 *************************************************************************
                                            2260 *                                   FOR LOCATING NON-NUMERIC DIGITS BY
                                            2261 *                                   MEANS OF THE "TRT" INSTRUCTION
1         DFH£ABRW - CICS SAMPLE FILEA BROWSE - ASSEMBLER                                                  Page   36
   Active Usings: STATR,R3  DFHEIBLK,R11  DFHEISTG,R13
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                        HLASM R6.0  2013/08/10 20.09
000000698                                   2262 STATR   DS    0D
00000698 FFFFFFFFFFFFFFFF                   2263 CHEKTAB DC    256X'FF'
00000798                00000798 00000788   2264         ORG   CHEKTAB+X'F0'
00000788 0000000000000000                   2265         DC    10X'00'
00000792                00000792 00000798   2266         ORG
00000798                                    2267         LTORG
00000798 C1C3C3D6E4D5E340                   2268               =CL(L'MESSAGES)'ACCOUNT NUMBER MUST BE NUMERIC'
000007E8 C5D5C440D6C640C6                   2269               =CL(L'MESSAGES)'END OF FILE - PLEASE RESTART '
00000838 D7D9C5E2E240C3D3                   2270               =CL(L'MESSAGES)'PRESS CLEAR TO EXIT'
00000888 E3D9C1D5E2C1C3E3                   2271               =CL(L'MESSAGES)'TRANSACTION TERMINATED'
000008D8 C6C9D3C5C1404040                   2272               =CL8'FILEA'
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 000008E0 00000000                          2273               =V(DFHEG1)
 000008E4 00000024                          2274               =F'36'
 000008E8 00000000                          2275               =F'0'
 000008EC 00000000                          2276               =A(0)
 000008F0 0000000D                          2277               =F'13'
 000008F4 00000014                          2278               =F'20'
 000008F8 C5D9D9E2                          2279               =CL4'ERRS'
 000008FC 0000                              2280               =H'0'
 000008FE F9F9F9F9F9F9                      2281               =C'999999'
 00000904 FFFFFFFFFFFF                      2282               =6X'FF'
 0000090A F0F0F0F0F0F0                      2283               =C'000000'
 00000910 000D                              2284               =Y(13)
 00000912 0050                              2285               =Y(L'FILEA)
 00000914 1802C00028000000                  2286               =X'1802C000280000000040900000020'
 00000923 C4C6C85BC1C7C1                    2287               =CL7'DFH£AGA'
 0000092A 060CB000280020A0                  2288               =X'060CB000280020A000'
 00000933 1804C00028000000                  2289               =X'1804C000280000000004E204000020'
 00000942 C4C6C85BC1C7C3                    2290               =CL7'DFH£AGC'
 00000949 0E08E00028000010                  2291               =X'0E08E0002800001000'
 00000952 C8C940C5D5C440D6                  2292               =CL(L'MSG1O)'HI END OF FILE'
 00000979 181200002800C300                  2293               =X'181200002800C30000084004000021'
 00000988 060EF400280000B0                  2294               =X'060EF400280000B000'
 00000991 0610F400280000B4                  2295               =X'0610F400280000B400'
 0000099A D3D640C5D5C440D6                  2296               =CL(L'MSG2O)'LO END OF FILE'
 000009C1 1C0280002800000FE                 2297               =X'1C0280002800000FE00'
 000009CA 0E08000028000010                  2298               =X'0E0800002800001000'
                                            2299         END
1                                              Relocation Dictionary                                    Page   37
-   Pos.Id   Rel.Id   Address  Type  Action                                    HLASM R6.0  2013/08/10 20.09
0  00000004 00000006 00000038   V 4    ST
   00000004 00000007 000008E0   V 4    ST
1                              Ordinary Symbol and Literal Cross Reference                               Page   38
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0ADDRX        20 0000027F FFFFFFFF     C  C               869
 AMNU          2 0000064A 00000004     H  H              2219 1588B 2185B 2194B
 AMOUNT        8 000002A3 FFFFFFFF     C  C               872 1691  1701  1706  1711  1823  1829  1834  1839
 AMOUNT1A      1 00000326 FFFFFFFF     C  C               955
 AMOUNT1F      1 00000326 FFFFFFFF     C  C               954
 AMOUNT1I      8 00000327 FFFFFFFF     C  C               956
 AMOUNT1L      2 00000324 FFFFFFFF     C  C               953
 AMOUNT1O      8 00000327 FFFFFFFF     C  C               957 1691M 1839M
 AMOUNT2A      1 00000351 FFFFFFFF     C  C               973
 AMOUNT2F      1 00000351 FFFFFFFF     C  C               972
 AMOUNT2I      8 00000352 FFFFFFFF     C  C               974
 AMOUNT2L      2 0000034F FFFFFFFF     C  C               971
 AMOUNT2O      8 00000352 FFFFFFFF     C  C               975 1701M 1834M
 AMOUNT3A      1 0000037C FFFFFFFF     C  C               991
 AMOUNT3F      1 0000037C FFFFFFFF     C  C               990
 AMOUNT3I      8 0000037D FFFFFFFF     C  C               992
 AMOUNT3L      2 0000037A FFFFFFFF     C  C               989
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 AMOUNT3O      8 0000037D FFFFFFFF     C  C               993 1706M 1829M
 AMOUNT4A      1 000003A7 FFFFFFFF     C  C              1009
 AMOUNT4F      1 000003A7 FFFFFFFF     C  C              1008
 AMOUNT4I      8 000003A8 FFFFFFFF     C  C              1010
 AMOUNT4L      2 000003A5 FFFFFFFF     C  C              1007
 AMOUNT4O      8 000003A8 FFFFFFFF     C  C              1011 1711M 1823M
 BADCHARS      6 000000EA 00000004     I                 1587 1579B
 BRWSNOW       2 000000FE 00000004     H  H              1595 1583B 1585B 1591B
 CHEKTAB       1 00000698 00000004     X  X              2263 1578  2264
 CLEARMAP      2 00000452 00000004     H  H              1967 1635B 1768B
 COMMAREA     13 00000201 FFFFFFFF     C  C               415 1755  1875  1895M 1956  2116  2167
 COMMENT       9 000002AB FFFFFFFF     C  C               873
 COMPTR        1 00000004 FFFFFFFF A   U                  422 1502M 1503M 1503  1894M 1895
 DATEX         8 0000029B FFFFFFFF     C  C               871
 DFH£ABRW      1 00000000 00000004     J                 1164 1165  1166  1363
 DFH£AGAE      1 000002F3 FFFFFFFF     U                  904  907  2224
 DFH£AGAI     63 000002B4 FFFFFFFF     C  C               908 1533
 DFH£AGAL      1 0000003F FFFFFFFF A   U                  907  908   908   908   909   909   909
 DFH£AGAO     63 000002B4 FFFFFFFF     C  C               909 2224  2224M 2224  2235
 DFH£AGAS      1 000002B4 FFFFFFFF     U                  889  905   907
 DFH£AGCE      1 0000042E FFFFFFFF     U                 1031 1034  1973
 DFH£AGCI    314 000002F4 FFFFFFFF     C  C              1035 1904
 DFH£AGCL      1 0000013A FFFFFFFF A   U                 1034 1035  1035  1035  1036  1036  1036
 DFH£AGCO    314 000002F4 FFFFFFFF     C  C              1036 1725  1854  1972  1973  2095  2146
 DFH£AGCS      1 000002F4 FFFFFFFF     U                  932 1032  1034
 DFHALL        1 00000000 FFFFFFFF A   U                  696
 DFHBASE       1 00000000 FFFFFFFF A   U                  733
 DFHBKTRN      1 00000046 FFFFFFFF A   U                  694
 DFHBLINK      1 000000F1 FFFFFFFF A   U                  741
 DFHBLUE       1 000000F1 FFFFFFFF A   U                  715
 DFHBMASB      1 000000F8 FFFFFFFF A   U                  651 1803  2086  2136  2225
 DFHBMASF      1 000000F1 FFFFFFFF A   U                  649
 DFHBMASK      1 000000F0 FFFFFFFF A   U                  633
 DFHBMBRY      1 000000C8 FFFFFFFF A   U                  641
 DFHBMCUR      1 00000002 FFFFFFFF A   U                  663
 DFHBMDAR      1 0000004C FFFFFFFF A   U                  643
 DFHBMDET      1 000000FF FFFFFFFF A   U                  669
 DFHBMEOF      1 00000080 FFFFFFFF A   U                  661
1                          Ordinary Symbol and Literal Cross Reference                                Page   39
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0DFHBMFSE     1 000000C1 FFFFFFFF A   U                  645
 DFHBMPCR     1 0000000D FFFFFFFF A   U                  631
 DFHBMPEM     1 00000019 FFFFFFFF A   U                  625
 DFHBMPFF     1 0000000C FFFFFFFF A   U                  629
 DFHBMPNL     1 00000015 FFFFFFFF A   U                  627
 DFHBMPRF     1 00000061 FFFFFFFF A   U                  647
 DFHBMPRO     1 00000060 FFFFFFFF A   U                  639
 DFHBMPSI     1 0000000F FFFFFFFF A   U                  655
 DFHBMPSO     1 0000000E FFFFFFFF A   U                  653
 DFHBMUNN     1 00000050 FFFFFFFF A   U                  637
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 DFHBMUNP      1 00000040 FFFFFFFF A   U                635
 DFHBOX        1 0000000F FFFFFFFF A   U                815
 DFHCLEAR      1 0000006D FFFFFFFF A   U               1123 1540  1911
 DFHCLRP       1 0000006A FFFFFFFF A   U               1124
 DFHCOLOR      1 00000042 FFFFFFFF A   U                682
 DFHDFCOL      1 00000000 FFFFFFFF A   U                713
 DFHDFFR       1 00000000 FFFFFFFF A   U                805
 DFHDFHI       1 00000000 FFFFFFFF A   U                739
 DFHDFT        1 000000FF FFFFFFFF A   U                706
 DFHEAG0       1 00000000 00000006     T               1469 1469
 DFHEG1        1 00000000 00000007     T               2273 2273
 DFHEIBLK      1 00000000 FFFFFFFE     J               1314 1489U
 DFHEIBP       8 00000090 FFFFFFFF     A  AD            393 1488
 DFHEIBR       1 0000000B FFFFFFFE A   U               1357 1315U 1488M 1489U
 DFHEICAP      8 00000098 FFFFFFFF     A  AD            394 1894
 DFHEIEND      1 0000042E FFFFFFFF     X  X             1162 1462  1468
 DFHEIPL       4 000000B0 FFFFFFFF     A  A             399 1530  1605  1655  1722  1752  1779  1851  1872  1901  1934  1953  1998
                                                            2045  2092  2113  2143  2164  2207  2232  2250
 DFHEIPLR      1 0000000D 00000004 A   U               1482  391U 1483M
 DFHEIRS3      4 000000AC FFFFFFFF     F  F             398
 DFHEIR13      8 000000A0 FFFFFFFF     A  AD            395
 DFHEISA       8 00000000 FFFFFFFF     F  FD            392
 DFHEISTG      1 00000000 FFFFFFFF     J                390 1160  1462  1468  1484U
 DFHEITG1      8 000001C0 FFFFFFFF     A  AD            404
 DFHEITG2      8 000001C8 FFFFFFFF     A  AD            405
 DFHEITG3      8 000001D0 FFFFFFFF     A  AD            406
 DFHEITG4      8 000001D8 FFFFFFFF     A  AD            407
 DFHEITP1      4 000001B0 FFFFFFFF     A  A             400
 DFHEITP2      4 000001B4 FFFFFFFF     A  A             401
 DFHEITP3      4 000001B8 FFFFFFFF     A  A             402
 DFHEITP4      4 000001BC FFFFFFFF     A  A             403
 DFHEIUSR      1 00000200 FFFFFFFF     X  X             412
 DFHEIVER      2 000000A8 FFFFFFFF     H  H             396
 DFHEIV00      2 000000AA FFFFFFFF     H  H             397 2003M 2004  2050M 2051
 DFHENTER      1 0000007D FFFFFFFF A   U               1122
 DFHERROR      1 0000003F FFFFFFFF A   U                701
 DFHGREEN      1 000000F4 FFFFFFFF A   U                721
 DFHHLT        1 00000041 FFFFFFFF A   U                686
 DFHLEFT       1 00000008 FFFFFFFF A   U                813
 DFHMENT       1 00000002 FFFFFFFF A   U                752
 DFHMET        1 00000003 FFFFFFFF A   U                760
 DFHMFE        1 00000006 FFFFFFFF A   U                754
 DFHMFET       1 00000007 FFFFFFFF A   U                800
 DFHMFIL       1 00000004 FFFFFFFF A   U                750
 DFHMFT        1 00000005 FFFFFFFF A   U                758
1                          Ordinary Symbol and Literal Cross Reference                                Page   40
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0DFHMSRE      1 000000E7 FFFFFFFF A   U               1127
 DFHMT         1 00000001 FFFFFFFF A   U                756
 DFHNEUTR      1 000000F7 FFFFFFFF A   U                727
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DFHNULL       1 00000000 FFFFFFFF A   U               1121
DFHOPAQ       1 000000FF FFFFFFFF A   U                826
DFHOPID       1 000000E6 FFFFFFFF A   U               1126
DFHOUTLN      1 000000C2 FFFFFFFF A   U                692
DFHOVER       1 00000004 FFFFFFFF A   U                811
DFHPA1        1 0000006C FFFFFFFF A   U               1130
DFHPA2        1 0000006E FFFFFFFF A   U               1131
DFHPA3        1 0000006B FFFFFFFF A   U               1132
DFHPEN        1 0000007E FFFFFFFF A   U               1125
DFHPF1        1 000000F1 FFFFFFFF A   U               1133 1913
DFHPF10       1 0000007A FFFFFFFF A   U               1142
DFHPF11       1 0000007B FFFFFFFF A   U               1143
DFHPF12       1 0000007C FFFFFFFF A   U               1144
DFHPF13       1 000000C1 FFFFFFFF A   U               1145
DFHPF14       1 000000C2 FFFFFFFF A   U               1146
DFHPF15       1 000000C3 FFFFFFFF A   U               1147
DFHPF16       1 000000C4 FFFFFFFF A   U               1148
DFHPF17       1 000000C5 FFFFFFFF A   U               1149
DFHPF18       1 000000C6 FFFFFFFF A   U               1150
DFHPF19       1 000000C7 FFFFFFFF A   U               1151
DFHPF2        1 000000F2 FFFFFFFF A   U               1134 1915
DFHPF20       1 000000C8 FFFFFFFF A   U               1152
DFHPF21       1 000000C9 FFFFFFFF A   U               1153
DFHPF22       1 0000004A FFFFFFFF A   U               1154
DFHPF23       1 0000004B FFFFFFFF A   U               1155
DFHPF24       1 0000004C FFFFFFFF A   U               1156
DFHPF3        1 000000F3 FFFFFFFF A   U               1135
DFHPF4        1 000000F4 FFFFFFFF A   U               1136
DFHPF5        1 000000F5 FFFFFFFF A   U               1137
DFHPF6        1 000000F6 FFFFFFFF A   U               1138
DFHPF7        1 000000F7 FFFFFFFF A   U               1139
DFHPF8        1 000000F8 FFFFFFFF A   U               1140
DFHPF9        1 000000F9 FFFFFFFF A   U               1141
DFHPINK       1 000000F3 FFFFFFFF A   U                719
DFHPROTI      1 000000E8 FFFFFFFF A   U                792
DFHPROTN      1 0000006C FFFFFFFF A   U                795
DFHPS         1 00000043 FFFFFFFF A   U                684
DFHRED        1 000000F2 FFFFFFFF A   U                717
DFHREVRS      1 000000F2 FFFFFFFF A   U                743
DFHRIGHT      1 00000002 FFFFFFFF A   U                809
DFHSA         1 00000028 FFFFFFFF A   U                675
DFHSOSI       1 00000001 FFFFFFFF A   U                821
DFHSTRF       1 00000088 FFFFFFFF A   U               1128
DFHTRANS      1 000000F0 FFFFFFFF A   U                825
DFHTRIG       1 0000007F FFFFFFFF A   U               1129
DFHTURQ       1 000000F5 FFFFFFFF A   U                723
DFHUNDER      1 00000001 FFFFFFFF A   U                807
DFHUNDLN      1 000000F4 FFFFFFFF A   U                745
DFHUNIMD      1 000000C9 FFFFFFFF A   U                772
DFHUNINT      1 000000D9 FFFFFFFF A   U                782
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 DFHUNNOD      1 0000004D FFFFFFFF A   U                  766
 DFHUNNON      1 0000005D FFFFFFFF A   U                  786
1                          Ordinary Symbol and Literal Cross Reference                                Page   41
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0DFHUNNUB      1 000000D8 FFFFFFFF A   U                  779
 DFHUNNUM      1 000000D1 FFFFFFFF A   U                  776
 DFHVAL        1 000000C1 FFFFFFFF A   U                  690
 DFHYELLO      1 000000F6 FFFFFFFF A   U                  725
 DFH0008A      4 00000000 00000004     I                 1364
 DFH0008B      1 00000028 00000004     U                 1370 1365
 DFH0008C      2 00000028 00000004     H  H              1461 1364B
 DFH0008D      2 0000003E 00000004     H  H              1471 1466B
 DFH3270       1 000000C0 FFFFFFFF A   U                  688
 DIRA          1 00000302 FFFFFFFF     C  C              937
 DIRF          1 00000302 FFFFFFFF     C  C              936
 DIRI          1 00000303 FFFFFFFF     C  C              938 1923  1925
 DIRL          2 00000300 FFFFFFFF     C  C              935
 DIRO          1 00000303 FFFFFFFF     C  C              939 2084M 2135M
 EIBAID        1 0000001A FFFFFFFE     C  C             1329 1540  1911  1913  1915
 EIBATT        1 0000003F FFFFFFFE     C  C             1339
 EIBCALEN      2 00000018 FFFFFFFE     H  H             1328 1502  1645  1770
 EIBCOMPL      1 00000042 FFFFFFFE     C  C             1342
 EIBCONF       1 00000044 FFFFFFFE     C  C             1344
 EIBCPOSN      2 00000016 FFFFFFFE     H  H             1327
 EIBDATE       4 00000004 FFFFFFFE     P  P             1317
 EIBDS         8 00000023 FFFFFFFE     C  C             1332
 EIBEOC        1 00000040 FFFFFFFE     C  C             1340
 EIBERR        1 00000045 FFFFFFFE     C  C             1345
 EIBERRCD      4 00000046 FFFFFFFE     C  C             1346
 EIBFMH        1 00000041 FFFFFFFE     C  C             1341
 EIBFN         2 0000001B FFFFFFFE     C  C             1330
 EIBFREE       1 0000003C FFFFFFFE     C  C             1336
 EIBLENG       1 00000055 FFFFFFFE A   U                 1353
 EIBNODAT      1 0000004B FFFFFFFE     C  C             1348
 EIBRCODE      6 0000001D FFFFFFFE     C  C             1331
 EIBRECV       1 0000003D FFFFFFFE     C  C             1337
 EIBREQID      8 0000002B FFFFFFFE     C  C             1333
 EIBRESP       4 0000004C FFFFFFFE     F  F             1349 1539  1617  1667  1731  1791  1860  1910  1941  2014  2061  2101  2152
                                                             2241
 EIBRESP2      4 00000050 FFFFFFFE     F  F             1350
 EIBRLDBK      1 00000054 FFFFFFFE     C  C             1351
 EIBRSRCE      8 00000033 FFFFFFFE     C  C             1334
 EIBRSVD1      2 00000014 FFFFFFFE     H  H             1326
 EIBSEND       1 0000003E FFFFFFFE     C  C             1338
 EIBSIG        1 00000043 FFFFFFFE     C  C             1343
 EIBSYNC       1 0000003B FFFFFFFE     C  C             1335
 EIBSYNRB      1 0000004A FFFFFFFE     C  C             1347
 EIBTASKN      4 0000000C FFFFFFFE     P  P             1324
 EIBTIME       4 00000000 FFFFFFFE     P  P             1316 1353
 EIBTRMID      4 00000010 FFFFFFFE     C  C             1325
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 EIBTRNID      4 00000008 FFFFFFFE     C  C             1323 1754  1874  1955  2115  2166
 ERRORS        2 00000628 00000004     H  H             2196 1547B 1624B 1674B 1734B 1798B 1863B 1922B 1944B 2024B 2071B 2104B 2155B
 FILEA        80 00000264 FFFFFFFF     C  C              864 2001  2048  2285
 FILEREC      80 00000264 FFFFFFFF     C  C              865
 HEXZERO       1 00000200 FFFFFFFF     X  X              414 1974  1975  1976
 KEYA          1 000002EC FFFFFFFF     C  C              900
 KEYF          1 000002EC FFFFFFFF     C  C              899
 KEYI          6 000002ED FFFFFFFF     C  C              901 1578  1580  1581
 KEYL          2 000002EA FFFFFFFF     C  C              898 1569
1                           Ordinary Symbol and Literal Cross Reference                                Page   42
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0KEYO          6 000002ED FFFFFFFF     C  C              902
 KEYS         12 00000202 FFFFFFFF     C  C              417 1508M 1509  1509M 1509
 MAPSETAT      1 000002F3 FFFFFFFF     U                 914
 MAPSETCT      1 0000042E FFFFFFFF     U                1041
 MESSAGES     80 0000020E FFFFFFFF     C  C              420 1510M 1511  1511M 1511  1587M 2184M 2193M 2215M 2226  2268  2269  2270
                                                             2271
 MSGA          1 000002C2 FFFFFFFF     C  C              894 2225M
 MSGF          1 000002C2 FFFFFFFF     C  C              893
 MSGI         39 000002C3 FFFFFFFF     C  C              895
 MSGL          2 000002C0 FFFFFFFF     C  C              892
 MSGO         39 000002C3 FFFFFFFF     C  C              896 2226M
 MSG0A         1 000003B2 FFFFFFFF     C  C             1015
 MSG0F         1 000003B2 FFFFFFFF     C  C             1014
 MSG0I        39 000003B3 FFFFFFFF     C  C             1016
 MSG0L         2 000003B0 FFFFFFFF     C  C             1013
 MSG0O        39 000003B3 FFFFFFFF     C  C             1017
 MSG1A         1 000003DC FFFFFFFF     C  C             1021 1803M 2086M
 MSG1F         1 000003DC FFFFFFFF     C  C             1020
 MSG1I        39 000003DD FFFFFFFF     C  C             1022
 MSG1L         2 000003DA FFFFFFFF     C  C             1019
 MSG1O        39 000003DD FFFFFFFF     C  C             1023 1802M 2085M 2292
 MSG2A         1 00000406 FFFFFFFF     C  C             1027 2136M
 MSG2F         1 00000406 FFFFFFFF     C  C             1026
 MSG2I        39 00000407 FFFFFFFF     C  C             1028
 MSG2L         2 00000404 FFFFFFFF     C  C             1025
 MSG2O        39 00000407 FFFFFFFF     C  C             1029 2137M 2296
 NAME         20 0000026B FFFFFFFF     C  C              868 1690  1700  1705  1710  1822  1828  1833  1838
 NAME1A        1 0000030F FFFFFFFF     C  C              949
 NAME1F        1 0000030F FFFFFFFF     C  C              948
 NAME1I       20 00000310 FFFFFFFF     C  C              950
 NAME1L        2 0000030D FFFFFFFF     C  C              947
 NAME1O       20 00000310 FFFFFFFF     C  C              951 1690M 1838M
 NAME2A        1 0000033A FFFFFFFF     C  C              967
 NAME2F        1 0000033A FFFFFFFF     C  C              966
 NAME2I       20 0000033B FFFFFFFF     C  C              968
 NAME2L        2 00000338 FFFFFFFF     C  C              965
 NAME2O       20 0000033B FFFFFFFF     C  C              969 1700M 1833M
 NAME3A        1 00000365 FFFFFFFF     C  C              985
 NAME3F        1 00000365 FFFFFFFF     C  C              984
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 NAME3I       20 00000366 FFFFFFFF     C  C               986
 NAME3L        2 00000363 FFFFFFFF     C  C               983
 NAME3O       20 00000366 FFFFFFFF     C  C               987 1705M 1828M
 NAME4A        1 00000390 FFFFFFFF     C  C              1003
 NAME4F        1 00000390 FFFFFFFF     C  C              1002
 NAME4I       20 00000391 FFFFFFFF     C  C              1004
 NAME4L        2 0000038E FFFFFFFF     C  C              1001
 NAME4O       20 00000391 FFFFFFFF     C  C              1005 1710M 1822M
 NEXTLINE      2 000001B8 00000004     H  H              1679 1646B 1676B
 NOACCNUM      6 000000F4 00000004     I                 1590 1570B
 NOTFOUND      2 00000614 00000004     H  H              2178 1621B 1671B 1795B 2021B 2068B
 NUMB          6 00000265 FFFFFFFF     C  C               867 1689  1699  1704  1709  1821  1827  1832  1837
 NUMBER1A      1 00000306 FFFFFFFF     C  C               943
 NUMBER1F      1 00000306 FFFFFFFF     C  C               942
 NUMBER1I      6 00000307 FFFFFFFF     C  C               944
 NUMBER1L      2 00000304 FFFFFFFF     C  C               941
1                          Ordinary Symbol and Literal Cross Reference                                Page   43
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0NUMBER1O      6 00000307 FFFFFFFF     C  C               945 1689M 1837M
 NUMBER2A      1 00000331 FFFFFFFF     C  C               961
 NUMBER2F      1 00000331 FFFFFFFF     C  C               960
 NUMBER2I      6 00000332 FFFFFFFF     C  C               962
 NUMBER2L      2 0000032F FFFFFFFF     C  C               959
 NUMBER2O      6 00000332 FFFFFFFF     C  C               963 1699M 1832M
 NUMBER3A      1 0000035C FFFFFFFF     C  C               979
 NUMBER3F      1 0000035C FFFFFFFF     C  C               978
 NUMBER3I      6 0000035D FFFFFFFF     C  C               980
 NUMBER3L      2 0000035A FFFFFFFF     C  C               977
 NUMBER3O      6 0000035D FFFFFFFF     C  C               981 1704M 1827M
 NUMBER4A      1 00000387 FFFFFFFF     C  C               997
 NUMBER4F      1 00000387 FFFFFFFF     C  C               996
 NUMBER4I      6 00000388 FFFFFFFF     C  C               998
 NUMBER4L      2 00000385 FFFFFFFF     C  C               995
 NUMBER4O      6 00000388 FFFFFFFF     C  C               999 1709M 1821M
 PAGEB         2 0000026E 00000004     H  H              1766 1629B 1916B 1926B
 PAGEF         2 00000158 00000004     H  H              1633 1626B 1914B 1924B
 PHONE         8 00000293 FFFFFFFF     C  C               870
 PREVLINE      2 000002DA 00000004     H  H              1809 1804B
 PREVXTRA      2 000002D6 00000004     H  H              1806 1801B
 READNEXT      2 0000046A 00000004     H  H              1982 1677B 1684B 1698B 1703B 1708B
 READPREV      2 000004CC 00000004     H  H              2029 1807B 1820B 1826B 1831B 1836B
 RECEIVE       2 00000394 00000004     H  H              1886 1504B
 RESPONSE      4 00000260 FFFFFFFF     F  F               421 1539M 1543  1546  1617M 1620  1623  1667M 1670  1673  1731M 1733  1791M
                                                              1794  1797  1860M 1862  1910M 1918  1921  1941M 1943  2014M 2017  2020
                                                              2023  2061M 2064  2067  2070  2101M 2103  2152M 2154  2241M
 RIDB          6 00000202 FFFFFFFF     C  C               418 1581M 1692M 1785  1824  2052  2083M 2134M
 RIDF          6 00000208 FFFFFFFF     C  C               419 1580M 1582  1584M 1590M 1611  1625  1661  1675  1692  1824M 2005  2083
                                                              2133M
 R3            1 00000003 FFFFFFFF A   U                  423
 R5            1 00000005 FFFFFFFF A   U                  424 1635M 1677M 1684M 1698M 1703M 1708M 1768M 1807M 1820M 1826M 1831M 1836M
```

```
                                                          1978B 2025B 2072B
 SMSG          2 0000061E 00000004     H  H              2187 1541B 1544B 1912B 1919B
 STAT          1 00000264 FFFFFFFF     C  C               866
 STATR         8 00000698 00000004     D  D              2262 1477  1478U
 STATUS        1 00000201 FFFFFFFF     C  C               416 1596M 1628M 1800  1819M 2082M 2132M
 TESTSTAT      4 000002C0 00000004     I                 1800 1771B
 TOOHIGH       2 0000052E 00000004     H  H              2076 2018B
 TOOLOW        2 0000059E 00000004     H  H              2125 2065B
 =A(0)         4 000008EC 00000004     A                 2276 1610  1660  1784  2008  2055
 =C'000000'
               6 0000090A 00000004     C                 2283 1590  1675  2133  2134
 =C'999999'
               6 000008FE 00000004     C                 2281 1582
 =CL(L'MESSAGES)'ACCOUNT NUMBER MUST BE NUMERIC'
              80 00000798 00000004     C                 2268 1587
 =CL(L'MESSAGES)'END OF FILE - PLEASE RESTART '
              80 000007E8 00000004     C                 2269 2184
 =CL(L'MESSAGES)'PRESS CLEAR TO EXIT'
              80 00000838 00000004     C                 2270 2193
 =CL(L'MESSAGES)'TRANSACTION TERMINATED'
              80 00000888 00000004     C                 2271 2215
 =CL(L'MSG1O)'HI END OF FILE'
              39 00000952 00000004     C                 2292 1802  2085
1                           Ordinary Symbol and Literal Cross Reference                          Page   44
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                  HLASM R6.0  2013/08/10 20.09
0=CL(L'MSG2O)'LO END OF FILE'
              39 0000099A 00000004     C                 2296 2137
 =CL4'ERRS'
               4 000008F8 00000004     C                 2279 2209
 =CL7'DFH£AGA'
               7 00000923 00000004     C                 2287 1532  2234
 =CL7'DFH£AGC'
               7 00000942 00000004     C                 2290 1724  1853  1903  2094  2145
 =CL8'FILEA'
               8 000008D8 00000004     C                 2272 1607  1657  1781  2000  2047
 =F'0'         4 000008E8 00000004     F                 2275 1546  1623  1673  1733  1797  1862  1921  1943  2023  2070  2103  2154
 =F'13'        4 000008F0 00000004     F                 2277 1620  1670  1794  2020  2067
 =F'20'        4 000008F4 00000004     F                 2278 2017  2064
 =F'36'        4 000008E4 00000004     F                 2274 1543  1918
 =H'0'         2 000008FC 00000004     H                 2280 1569  1645  1770
 =V(DFHEG1)
               4 000008E0 00000004     V                 2273 1536  1614  1664  1728  1760  1788  1857  1880  1907  1938  1961  2011
                                                               2058  2098  2121  2149  2172  2212  2238  2254
 =X'0E08E0002800001000'
               9 00000949 00000004     X                 2291 1753  1873  1954  2114  2165
 =X'0E0800002800001000'
               9 000009CA 00000004     X                 2298 2251
 =X'060CB000280020A000'
               9 0000092A 00000004     X                 2288 1606  1656  1780
 =X'060EF400280000B000'
```

```
              9 00000988 00000004     X                 2294 1999
 =X'0610F400280000B400'
              9 00000991 00000004     X                 2295 2046
 =X'1C028000280000FE00'
              9 000009C1 00000004     X                 2297 2208
 =X'1802C00028000000000040900000020'
             15 00000914 00000004     X                 2286 1531  1902
 =X'1804C00028000000004E204000020'
             15 00000933 00000004     X                 2289 1723  1852  2093  2144  2233
 =X'181200002800C30000084004000021'
             15 00000979 00000004     X                 2293 1935
 =Y(L'FILEA)
              2 00000912 00000004     Y                 2285 2003  2050
 =Y(13)       2 00000910 00000004     Y                 2284 1757  1877  1958  2118  2169
 =6X'FF'      1 00000904 00000004     X                 2282 1584  1625
1                                         Macro and Copy Code Source Summary                              Page   45
- Con Source                                       Volume    Members                      HLASM R6.0  2013/08/10 20.09
0     PRIMARY INPUT                                          B        BAL      BAS      BC       BCT      BE       BH
                                                             BL       BM       BNE      BNH      BNL      BNM      BNO
                                                             BNP      BNZ      BO       BP       BXH      BXLE     BZ
   L1 CTS510.CICSXXX .SDFHMAC                       37P001    DFHAID   DFHBMSCA DFHCOPYR DFHECALL DFHEIBLK DFHEIEND
                                                             DFHEIENT DFHEIGBL DFHEISTG DFHEJECT DFHGDEFS DFHSYS
   L3 CTS510.CICSXXX .SDFHSAMP                      37P001    DFH£AFIL DFH£AGA  DFH£AGC
   L4 SYS1.MACLIB                                  37SY04    IEABRC   IEABRCX  SYSSTATE
1                                               Dsect Cross Reference                                     Page   46
-Dsect     Length      Id       Defn                                                      HLASM R6.0  2013/08/10 20.09
0DFHEIBLK 00000055  FFFFFFFE    1314
 DFHEISTG 0000042E  FFFFFFFF     390
1                                                     Using Map                                           Page   47
-                                                                                          HLASM R6.0  2013/08/10 20.09
   Stmt  -----Location----- Action ----------------Using----------------- Reg Max     Last Label and Using Text
           Count      Id           Type          Value    Range     Id        Disp    Stmt
0   391  00000000  FFFFFFFF USING  ORDINARY    00000000 00001000 FFFFFFFF  13 00000        *,DFHEIPLR
   1315  00000000  FFFFFFFE USING  ORDINARY    00000000 00001000 FFFFFFFE  11 00000        *,DFHEIBR
   1478  0000004C  00000004 USING  ORDINARY    00000698 00001000 00000004   3 00332   2254 STATR,3
   1484  00000050  00000004 USING  ORDINARY    00000000 00001000 FFFFFFFF  13 00407   2250 DFHEISTG,13
   1489  00000056  00000004 USING  ORDINARY    00000000 00001000 FFFFFFFE  11 0004C   2241 DFHEIBLK,DFHEIBR
1                                  General Purpose Register Cross Reference                               Page   48
- Register  References (M=modified, B=branch, U=USING, D=DROP, N=index)                    HLASM R6.0  2013/08/10 20.09
0    0(0)     1464  1533M 1534  1608M 1608  1609  1658M 1658  1659  1725M 1726  1755M 1756  1782M 1782  1783  1854M 1855  1875M 1876
              1904M 1905  1956M 1957  2001M 2002  2006M 2006  2007  2048M 2049  2053M 2053  2054  2095M 2096  2116M 2117  2146M 2147
              2167M 2168  2235M 2236
     1(1)     1464  1466M 1472  1483  1530M 1534  1535  1578M 1605M 1609  1612  1613  1655M 1659  1662  1663  1722M 1726  1727  1752M
              1756  1758  1759  1779M 1783  1786  1787  1851M 1855  1856  1872M 1876  1878  1879  1901M 1905  1906  1934M 1936  1937
              1953M 1957  1959  1960  1998M 2002  2007  2009  2010  2045M 2049  2054  2056  2057  2092M 2096  2097  2113M 2117  2119
              2120  2143M 2147  2148  2164M 2168  2170  2171  2207M 2210  2211  2232M 2236  2237  2250M 2252  2253
     2(2)     1464  1578M
     3(3)     1464  1477M 1478U
     4(4)     1464  1502M 1503M 1503  1894M 1895
     5(5)     1464  1635M 1677M 1684M 1698M 1703M 1708M 1768M 1807M 1820M 1826M 1831M 1836M 1978B 2025B 2072B
```

```
     6(6)    1464  1972M 1977M
     7(7)    1464  1973M 1977M
     8(8)    1464  1974M 1977M
     9(9)    1464  1975M 1976M 1977M
    10(A)    1464
    11(B)    1315U 1464  1488M 1489U
    12(C)    1464
    13(D)     391U 1464  1483M 1484U
    14(E)    1464  1473M 1531M 1534  1537M 1606M 1609  1610M 1612  1615M 1656M 1659  1660M 1662  1665M 1723M 1726  1729M 1753M 1756
             1757M 1758  1761M 1780M 1783  1784M 1786  1789M 1852M 1855  1858M 1873M 1876  1877M 1878  1881M 1902M 1905  1908M 1935M
             1936  1939M 1954M 1957  1958M 1959  1962M 1999M 2002  2004M 2007  2008M 2009  2012M 2046M 2049  2051M 2054  2055M 2056
             2059M 2093M 2096  2099M 2114M 2117  2118M 2119  2122M 2144M 2147  2150M 2165M 2168  2169M 2170  2173M 2208M 2210  2213M
             2233M 2236  2239M 2251M 2252  2255M
    15(F)    1464  1472M 1473B 1532M 1534  1536M 1537B 1607M 1609  1611M 1612  1614M 1615B 1657M 1659  1661M 1662  1664M 1665B 1724M
             1726  1728M 1729B 1754M 1756  1760M 1761B 1781M 1783  1785M 1786  1788M 1789B 1853M 1855  1857M 1858B 1874M 1876  1880M
             1881B 1903M 1905  1907M 1908B 1938M 1939B 1955M 1957  1961M 1962B 2000M 2002  2005M 2007  2011M 2012B 2047M 2049  2052M
             2054  2058M 2059B 2094M 2096  2098M 2099B 2115M 2117  2121M 2122B 2145M 2147  2149M 2150B 2166M 2168  2172M 2173B 2209M
             2210  2212M 2213B 2234M 2236  2238M 2239B 2254M 2255B
1                              Diagnostic Cross Reference and Assembler Summary                          Page   49
-                                                                                      HLASM R6.0  2013/08/10 20.09
0     No Statements Flagged in this Assembly
 HIGH LEVEL ASSEMBLER, 5696-234, RELEASE 6.0, PTF UK80712
0SYSTEM: z/OS 01.13.00              JOBNAME: GACUA       STEPNAME: B          PROCSTEP: ASM
0Data Sets Allocated for this Assembly
  Con DDname   Data Set Name                              Volume  Member
   P1 SYSIN    SYS13222.T200939.RA000.GACUA.SYSCIN.H01
   L1 SYSLIB   CTS510.CICSXXX .SDFHMAC                     37P001
   L2          CTS510.CICSXXX .SDFHMAC                     37P001
   L3          CTS510.CICSXXX .SDFHSAMP                    37P001
   L4          SYS1.MACLIB                                 37SY04
   L5          PP.HLASM.ZOS113.SASMMAC1                    37SY04
   L6          PP.HLASM.ZOS113.SASMMAC2                    37SY04
   L7          MQM.V710.SCSQMACS                           37P002
   L8          MQM.V710.SCSQASMS                           37P001
      SYSLIN   SMORSA.BOSTON.ASM.OBJ                       37P003  DFH£ABRW
      SYSPRINT SMORSA.GACUA.JOB20892.D0000103.?

     800K allocated to Buffer Pool       Storage required     756K
     589 Primary Input Records Read         3934 Library Records Read                0 Work File Reads
       0 ASMAOPT Records Read               2327 Primary Print Records Written       0 Work File Writes
      46 Object Records Written                0 ADATA Records Written
0Assembly Start Time: 20.09.40 Stop Time: 20.09.40 Processor Time: 00.00.00.0161
 Return Code 000

1DATA SET UTILITY - GENERATE                                                                  PAGE 0001
-
 PROCESSING ENDED AT EOD
1z/OS V1 R13 BINDER     20:09:40 SATURDAY AUGUST 10, 2013
 BATCH EMULATOR  JOB(GACUA   ) STEP(B       ) PGM= IEWL      PROCEDURE(LKED    )
 IEW2278I B352 INVOCATION PARAMETERS - LIST,XREF
```

```
 IEW2322I 1220  1     ORDER DFHEAG
 IEW2322I 1220  2     INCLUDE SYSLIB(DFHEAG)
 IEW2322I 1220  3    NAME DFH£ABRW(R)
 IEW2650I 5102 MODULE ENTRY NOT PROVIDED.  ENTRY DEFAULTS TO SECTION DFHEAG.


1                                  C R O S S - R E F E R E N C E   T A B L E
                                   _________________________________________

 TEXT CLASS = B_TEXT

 --------------  R E F E R E N C E  -------------------------  T A R G E T  ----------------------------------------
   CLASS                          ELEMENT       |                                  ELEMENT                    |
   OFFSET SECT/PART(ABBREV)        OFFSET  TYPE | SYMBOL(ABBREV)   SECTION (ABBREV)   OFFSET CLASS NAME       |
                                                |                                                            |
       60 DFH£ABRW                    38 V-CON | DFHEAG0          DFHEAG0                 0 B_TEXT           |
      908 DFH£ABRW                   8E0 V-CON | DFHEG1           DFHEAG                  8 B_TEXT           |
                                    *** E N D  O F  C R O S S  R E F E R E N C E ***


                              *** O P E R A T I O N   S U M M A R Y   R E P O R T ***

1PROCESSING OPTIONS:

    ALIASES             NO
    ALIGN2              NO
    AMODE               UNSPECIFIED
    CALL                YES
    CASE                UPPER
    COMPAT              UNSPECIFIED
    COMPRESS            AUTO
    DCBS                NO
    DYNAM               NO
    EXTATTR             UNSPECIFIED
    EXITS:              NONE
    FILL                NONE
    GID                 UNSPECIFIED
    HOBSET              NO
    INFO                NO
    LET                 04
    LINECT              060
    LIST                SUMMARY
    LISTPRIV            NO
    MAP                 NO
    MAXBLK              032760
    MODMAP              NO
    MSGLEVEL            00
    OVLY                NO
    PRINT               YES
```

```
    RES                 NO
    REUSABILITY         UNSPECIFIED
    RMODE               UNSPECIFIED
    SIGN                NO
    STORENX             NOREPLACE
    STRIPCL             NO
    STRIPSEC            NO
    TERM                NO
    TRAP                ON
    UID                 UNSPECIFIED
    UPCASE              NO
    WKSPACE             000000K,000000K
    XCAL                NO
    XREF                YES
    ***END OF OPTIONS***



1SAVE OPERATION SUMMARY:

    MEMBER NAME         DFH£ABRW
    LOAD LIBRARY        SMORSA.BOSTON.ASM.LOAD
    PROGRAM TYPE        PROGRAM OBJECT(FORMAT 4 OS COMPAT LEVEL z/OS V1R3 )
    VOLUME SERIAL       37P004
    DISPOSITION         REPLACED
    TIME OF SAVE        20.09.40  AUG 10, 2013


1SAVE MODULE ATTRIBUTES:

    AC                  000
    AMODE                64
    COMPRESSION         NONE
    DC                  NO
    EDITABLE            YES
    EXCEEDS 16MB        NO
    EXECUTABLE          YES
    MIGRATABLE          YES
    OL                  NO
    OVLY                NO
    PACK,PRIME          NO,NO
    PAGE ALIGN          NO
    REFR                NO
    RENT                NO
    REUS                NO
    RMODE               ANY
    SCTR                NO
    SIGN                NO
    SSI
```

```
    SYM GENERATED       NO
    TEST                NO
    XPLINK              NO
    MODULE SIZE (HEX)   00000A18
    DASD SIZE (HEX)     00002000

1 ENTRY POINT AND ALIAS SUMMARY:

  NAME:            ENTRY TYPE AMODE C_OFFSET CLASS NAME        STATUS

  DFHEAG            MAIN_EP      64 00000000 B_TEXT

                        *** E N D   O F   O P E R A T I O N   S U M M A R Y   R E P O R T ***



1z/OS V1 R13 BINDER     20:09:40 SATURDAY AUGUST 10, 2013
 BATCH EMULATOR  JOB(GACUA   ) STEP(B       ) PGM= IEWL      PROCEDURE(LKED    )
 IEW2008I 0F03 PROCESSING COMPLETED.  RETURN CODE =  0.


1----------------------
 MESSAGE SUMMARY REPORT
 ----------------------
  TERMINAL MESSAGES      (SEVERITY = 16)
  NONE

  SEVERE MESSAGES        (SEVERITY = 12)
  NONE

  ERROR MESSAGES         (SEVERITY = 08)
  NONE

  WARNING MESSAGES       (SEVERITY = 04)
  NONE

  INFORMATIONAL MESSAGES (SEVERITY = 00)
  2008  2278  2322  2650


  **** END OF MESSAGE SUMMARY REPORT ****
```

GETSTCK

```
*/* copyright IBM 2013                                              */
*/* GETSTCK  - Sample program to return STCK, STCKF or STCKE        */
        SYSSTATE ARCHLVL=2            Arch level
        ASMMREL ON                    HLASM Structured Macros
        COPY ASMMSP                   HLASM Structured Macros
GETSTCK CSECT
GETSTCK AMODE 31
Return_STCK   EQU  1
Return_STCKF  EQU  2
Return_STCKE  EQU  3
Return_ERROR  EQU  16
R1    EQU   1,,,,GR32
R2    EQU   2,,,,GR32
R14   EQU   14,,,,GR32
R15   EQU   15,,,,GR32
        using GETSTCK,R15               base reg
        L     R1,0(,R1)                 address input parms
        using GETSTCK_INPUT_PARMS,R1    input parms
        IF (clc,eyeCatcher,NE,=C'GETS') validate field
             LHI  R15,Return_ERROR
             BR   R14
        ENDIF
        SELECT clc,function,EQ          what was requested?
           WHEN (=A(Return_STCK))
             XC   returnValue,returnValue
             STCK returnValue
             LHI  R15,Return_STCK
             BR   R14
           WHEN (=A(Return_STCKF))
             XC   returnValue,returnValue
             STCKF returnValue
             LHI  R15,Return_STCKF
             BR   R14
           WHEN (=A(Return_STCKE))
             XC   returnValue,returnValue
             STCKE returnValue
             LHI  R15,Return_STCK
             BR   R14
           OTHRWISE
        ENDSEL
        LHI  R15,Return_STCK
        BR   R14
        ltorg
GETSTCK_INPUT_PARMS  DSECT    input parms structure
eyeCatcher   DC   CL4'GETS'          eye catcher
version      DC   F'1'               input parm version
function     DC   F'0'               request
```

```
returnValue  DC   3F'0'              returned value
        END



1                                       High Level Assembler Option Summary                 (PTF UK80712)    Page    1
-                                                                                          HLASM R6.0  2013/08/10 20.09
0  No Overriding ASMAOPT Parameters
   Overriding Parameters-  RENT,ADATA,XOBJ,XREF(FULL),SIZE(360K),WORKFILE,LIST(MAX)
   No Process Statements


   Options for this Assembly
03   ADATA
     ALIGN
   NOASA
   NOBATCH
     CODEPAGE(047C)
   NOCOMPAT
   NODBCS
   NODECK
     DXREF
     ESD
   NOEXIT
     FLAG(0,ALIGN,NOCONT,EXLITW,NOIMPLEN,NOPAGE0,PUSH,RECORD,NOSUBSTR,USING0)
   NOFOLD
 3   GOFF(NOADATA)
   NOINFO
     LANGUAGE(EN)
   NOLIBMAC
     LINECOUNT(60)
 3   LIST(MAX)
     MACHINE(,NOLIST)
     MXREF(SOURCE)
     OBJECT
     OPTABLE(UNI,NOLIST)
   NOPCONTROL
   NOPESTOP
   NOPROFILE
   NORA2
 3   RENT
     RLD
     RXREF
     SECTALGN(8)
 3   SIZE(360K)
   NOSUPRWARN
     SYSPARM()
   NOTERM
   NOTEST
```

```
     THREAD
   NOTRANSLATE
     TYPECHECK(MAGNITUDE,REGISTER)
     USING(NOLIMIT,MAP,NOWARN)
 3   WORKFILE
 3   XREF(FULL)

   No Overriding DD Names
1                                    External Symbol Dictionary                                Page    2
-Symbol   Type   Id     Address  Length   Owner Id Flags Alias-of                    HLASM R6.0  2013/08/10 20.09
0GETSTCK   SD 00000001
 B_IDRL    ED 00000002                    00000001
 B_PRV     ED 00000003                    00000001
 B_TEXT    ED 00000004 00000000 000000A0  00000001   02
 GETSTCK   LD 00000005 00000000           00000004   02
1                                                                                              Page    3
   Active Usings: None
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                    HLASM R6.0  2013/08/10 20.09
0                                              1 */* copyright IBM 2013                                          */
                                               2 */* GETSTCK  - Sample program to return STCK, STCKF or STCKE         */
                                               3         SYSSTATE ARCHLVL=2           Arch level
                                               4+*        THE VALUE OF SYSSTATE IS NOW SET TO ASCENV=P AMODE64=NO ARCHLVX01-SYSSTATE
                                                +               L=2 OSREL=00000000
                                               5         IEABRCX DEFINE               Use relative branch
                                             324         IEABRCX ENABLE               Use relative branch
                                             349         ASMMREL ON                   HLASM Structured Macros
                                             350         COPY ASMMSP                  HLASM Structured Macros
 00000000                00000000 000000A0  1957 GETSTCK CSECT
                                            1958 GETSTCK AMODE 31
                         00000001           1959 Return_STCK   EQU  1
                         00000002           1960 Return_STCKF  EQU  2
                         00000003           1961 Return_STCKE  EQU  3
                         00000010           1962 Return_ERROR  EQU  16
                         00000001           1963 r01  EQU   1,,,,GR32
                         0000000C           1964 r12  EQU   12,,,,GR32
                         0000000E           1965 r14  EQU   14,,,,GR32
                         0000000F           1966 r15  EQU   15,,,,GR32
                                            1967         save  (14,12),,*
 00000000 A7F4 0006              0000000C   1969+         J     *+12                          BRANCH AROUND ID  @01C 01-SAVE
 00000004 07                                1970+         DC    AL1(7)                                          01-SAVE
 00000005 C7C5E3E2E3C3D2                    1971+         DC    CL7'GETSTCK'                  IDENTIFIER        01-SAVE
 0000000C 90EC D00C              0000000C   1972+         STM   14,12,12(13)                  SAVE REGISTERS    01-SAVE
 00000010 18CF                              1973         lr    r12,r15                 set base reg
                    R:C 00000000            1974         using GETSTCK,r12             base reg
 00000012 5810 1000              00000000   1975         L     r01,0(,r01)             address input parms
                    R:1 00000000            1976         using GETSTCK_INPUT_PARMS,r01 input parms
 00000016 A7F8 0010              00000010   1977         LHI  r15,Return_ERROR         preset rc
                                            1978         IF (clc,eyeCatcher,NE,=C'GETS') validate field
 0000001A D503 1000 C090 00000000 00000090  1989+                clc            eyeCatcher,=C'GETS'                03-ASMMPOPI
 00000020 A784 0007              0000002E   1990+           BRC          8,#@LB1                                    02-ASMMIFPR
```

```
                                        1992              return (14,12),RC=(15)
 00000024 58E0 D00C              0000000C   1994+          L     14,12(0,13)                       RESTORE REG 14    @L1C 01-RETURN
 00000028 980C D014              00000014   1995+          LM    0,12,20(13)                       RESTORE THE REGISTERS  01-RETURN
 0000002C 07FE                              1996+          BR    14                                RETURN                 01-RETURN
                                            1997         ENDIF
 0000002E                                   2002+#@LB1     DC    0H                                                       01-00000946
                                            2004         SELECT clc,function,EQ          what was requested?
                                            2011           WHEN (=A(Return_STCK))
 0000002E D503 1008 C094 00000008 00000094  2017+          CLC   function,=A(Return_STCK)                                 01-00001529
 00000034 A774 000B              0000004A   2018+          BRC   7,#@LB4                                                  01-00001538
 00000038 D70B 100C 100C 0000000C 0000000C  2020               XC   returnValue(returnValue_L),returnValue
 0000003E B205 100C      0000000C           2021               STCK returnValue
 00000042 A7F8 0001              00000001   2022               LHI  r15,Return_STCK
                                            2023             WHEN (=A(Return_STCKF))
 00000046 A7F4 001E              00000082   2027+          BRC   15,#@LB3               SKIP TO END                       01-00001503
 0000004A                                   2028+#@LB4     DC    0H                                                       01-00001507
 0000004A D503 1008 C098 00000008 00000098  2031+          CLC   function,=A(Return_STCKF)                                01-00001529
 00000050 A774 000B              00000066   2032+          BRC   7,#@LB6                                                  01-00001538
 00000054 D70B 100C 100C 0000000C 0000000C  2034               XC   returnValue(returnValue_L),returnValue
 0000005A B27C 100C      0000000C           2035               STCKF returnValue
 0000005E A7F8 0002              00000002   2036               LHI  r15,Return_STCKF
                                            2037             WHEN (=A(Return_STCKE))
 00000062 A7F4 0010              00000082   2041+          BRC   15,#@LB3               SKIP TO END                       01-00001503
1                                                                                                    Page    4
   Active Usings: GETSTCK_INPUT_PARMS,R1  GETSTCK,R12
0  Loc    Object Code      Addr1    Addr2    Stmt  Source Statement                          HLASM R6.0  2013/08/10 20.09
000000066                                  2042+#@LB6     DC    0H                                                       01-00001507
 00000066 D503 1008 C09C 00000008 0000009C  2045+          CLC   function,=A(Return_STCKE)                                01-00001529
 0000006C A774 000B              00000082   2046+          BRC   7,#@LB8                                                  01-00001538
 00000070 D70B 100C 100C 0000000C 0000000C  2048               XC   returnValue(returnValue_L),returnValue
 00000076 B278 100C      0000000C           2049               STCKE returnValue
 0000007A A7F8 0001              00000001   2050               LHI  r15,Return_STCK
                                            2051             OTHRWISE
 0000007E A7F4 0002              00000082   2055+          BRC   15,#@LB3               SKIP TO END                       01-00001325
 00000082                                   2056+#@LB8     DC    0H                                                       01-00001329
                                            2058         ENDSEL
 00000082                                   2062+#@LB3     DC    0H                                                       01-00001082
                                            2065         return (14,12),RC=(15)
 00000082 58E0 D00C              0000000C   2067+          L     14,12(0,13)                       RESTORE REG 14    @L1C 01-RETURN
 00000086 980C D014              00000014   2068+          LM    0,12,20(13)                       RESTORE THE REGISTERS  01-RETURN
 0000008A 07FE                              2069+          BR    14                                RETURN                 01-RETURN
 00000090                                   2070         ltorg
 00000090 C7C5E3E2                          2071                =C'GETS'
 00000094 00000001                          2072                =A(Return_STCK)
 00000098 00000002                          2073                =A(Return_STCKF)
 0000009C 00000003                          2074                =A(Return_STCKE)
                                            2075         drop r12
 00000000                00000000 00000018  2076 GETSTCK_INPUT_PARMS  DSECT    input parms structure
 00000000 C7C5E3E2                          2077 eyeCatcher   DC   CL4'GETS'          eye catcher
 00000004 00000001                          2078 version      DC   F'1'              input parm version
```

```
 00000008 00000000                          2079 function     DC   F'0'              request
 0000000C 0000000000000000                  2080 returnValue  DC   3F'0'             returned value
                       0000000C             2081 returnValue_L equ *-returnValue     returned value length
                                            2082         END
1                              Ordinary Symbol and Literal Cross Reference                                Page    5
-Symbol   Length   Value     Id    R Type Asm  Program   Defn References                   HLASM R6.0  2013/08/10 20.09
0#@LB1         2 0000002E 00000004     H  H              2002 1990B
 #@LB3         2 00000082 00000004     H  H              2062 2027B 2041B 2055B
 #@LB4         2 0000004A 00000004     H  H              2028 2018B
 #@LB6         2 00000066 00000004     H  H              2042 2032B
 #@LB8         2 00000082 00000004     H  H              2056 2046B
 eyeCatcher
               4 00000000 FFFFFFFF     C  C              2077 1989
 function      4 00000008 FFFFFFFF     F  F              2079 2017  2031  2045
 GETSTCK       1 00000000 00000004     J                 1957 1958  1974U
 GETSTCK_INPUT_PARMS
               1 00000000 FFFFFFFF     J                 2076 1976U
 Return_ERROR
               1 00000010 00000004 A   U                 1962 1977
 Return_STCK
               1 00000001 00000004 A   U                 1959 2022  2050  2072
 Return_STCKE
               1 00000003 00000004 A   U                 1961 2074
 Return_STCKF
               1 00000002 00000004 A   U                 1960 2036  2073
 returnValue
               4 0000000C FFFFFFFF     F  F              2080 2020M 2020  2021M 2034M 2034  2035M 2048M 2048  2049M 2081
 returnValue_L
               1 0000000C FFFFFFFF A   U                 2081 2020  2034  2048
 r01           1 00000001 00000004 A   U  GR32           1963 1975M 1975  1976U
 r12           1 0000000C 00000004 A   U  GR32           1964 1973M 1974U 2075D
 r14           1 0000000E 00000004 A   U  GR32           1965
 r15           1 0000000F 00000004 A   U  GR32           1966 1973  1977M 2022M 2036M 2050M
 version       4 00000004 FFFFFFFF     F  F              2078
 =A(Return_STCK)
               4 00000094 00000004     A                 2072 2017
 =A(Return_STCKE)
               4 0000009C 00000004     A                 2074 2045
 =A(Return_STCKF)
               4 00000098 00000004     A                 2073 2031
 =C'GETS'      4 00000090 00000004     C                 2071 1989
1                                  Macro and Copy Code Source Summary                                    Page    6
- Con Source                                    Volume    Members                    HLASM R6.0  2013/08/10 20.09
0     PRIMARY INPUT                                      ASM_CASE ASM_CASENTRY      ASM_DO   ASM_DOEXIT
                                                         ASM_ELSE ASM_ELSEIF        ASM_ENDCASE       ASM_ENDDO
                                                         ASM_ENDIF         ASM_ENDLOOP       ASM_ENDSEL
                                                         ASM_ENDSRCH       ASM_EXITIF        ASM_IF   ASM_ITERATE
                                                         ASM_LEAVE         ASM_NEXTWHEN      ASM_ORELSE
                                                         ASM_OTHRWISE      ASM_SELECT        ASM_STRTSRCH
                                                         ASM_TK_RENAME     ASM_WHEN B        BAL      BAS      BC
```

```
                                                        BCT      BE       BH       BL       BM       BNE      BNH
                                                        BNL      BNM      BNO      BNP      BNZ      BO       BP
                                                        BXH      BXLE     BZ
   L2 SYS1.MACLIB                                37SY04  IEABRC   IEABRCX  RETURN   SAVE     SYSSTATE
   L4 PP.HLASM.ZOS113.SASMMAC2                   37SY04  ASMMCHKN ASMMGBLV ASMMGETC ASMMIFPR ASMMNAME ASMMPOPI
                                                         ASMMPOPN ASMMPSHI ASMMPSHL ASMMPSHN ASMMREL  ASMMSP
                                                         ASMMSTKI
1                                              Dsect Cross Reference                                    Page    7
-Dsect     Length      Id       Defn                                                  HLASM R6.0  2013/08/10 20.09
0GETSTCK_INPUT_PARMS
          00000018  FFFFFFFF    2076
1                                                  Using Map                                            Page    8
-                                                                                    HLASM R6.0  2013/08/10 20.09
   Stmt  -----Location----- Action ----------------Using----------------- Reg Max     Last Label and Using Text
           Count      Id           Type          Value    Range     Id        Disp    Stmt
0  1974  00000012  00000004 USING  ORDINARY    00000000 00001000 00000004  12 0009C   2045 GETSTCK,r12
   1976  00000016  00000004 USING  ORDINARY    00000000 00001000 FFFFFFFF   1 0000C   2049 GETSTCK_INPUT_PARMS,r01
   2075  000000A0  00000004 DROP                                          12             r12
1                                  General Purpose Register Cross Reference                             Page    9
- Register  References (M=modified, B=branch, U=USING, D=DROP, N=index)                HLASM R6.0  2013/08/10 20.09
0    0(0)    1972  1995M 2068M
     1(1)    1972  1975M 1975  1976U 1995M 2068M
     2(2)    1972  1995M 2068M
     3(3)    1972  1995M 2068M
     4(4)    1972  1995M 2068M
     5(5)    1972  1995M 2068M
     6(6)    1972  1995M 2068M
     7(7)    1972  1995M 2068M
     8(8)    1972  1995M 2068M
     9(9)    1972  1995M 2068M
    10(A)    1972  1995M 2068M
    11(B)    1972  1995M 2068M
    12(C)    1972  1973M 1974U 1995M 2068M 2075D
    13(D)    1972  1994  1995  2067  2068
    14(E)    1972  1994M 1996B 2067M 2069B
    15(F)    1972  1973  1977M 2022M 2036M 2050M
1                                Diagnostic Cross Reference and Assembler Summary                       Page   10
-                                                                                    HLASM R6.0  2013/08/10 20.09
0     No Statements Flagged in this Assembly
 HIGH LEVEL ASSEMBLER, 5696-234, RELEASE 6.0, PTF UK80712
0SYSTEM: z/OS 01.13.00              JOBNAME: GACUS       STEPNAME: B          PROCSTEP: C
0Data Sets Allocated for this Assembly
  Con DDname   Data Set Name                          Volume  Member
   P1 SYSIN    SMORSA.BOSTON.ASM.SOURCE               37P003  GETSTCK
   L1 SYSLIB   SMORSA.ASM.ASM                         37P001
   L2          SYS1.MACLIB                            37SY04
   L3          PP.HLASM.ZOS113.SASMMAC1               37SY04
   L4          PP.HLASM.ZOS113.SASMMAC2               37SY04
      SYSADATA SMORSA.ASM.ADATA                       37P001  GETSTCK
      SYSLIN   SMORSA.BOSTON.ASM.OBJ                  37P003  GETSTCK
```

```
      SYSPRINT SMORSA.GACUS.JOB20888.D0000102.?

     360K allocated to Buffer Pool       Storage required     668K
      51 Primary Input Records Read         4034 Library Records Read               13 Work File Reads
       0 ASMAOPT Records Read                261 Primary Print Records Written      10 Work File Writes
      12 Object Records Written             2358 ADATA Records Written
0Assembly Start Time: 20.09.30 Stop Time: 20.09.31 Processor Time: 00.00.00.0272
```

gclock.c

```
/* copyright IBM UK LTD 2013                                  */
/* sample c program to invoke assembler routine               */
/* the assembler routine does not require any working storage*/

#include <stdio.h>
#include <leawi.h>
#include <stdlib.h>
#include <string.h>
#include <ceeedcct.h>

#pragma linkage(GETSTCK,OS)              // use OS linkage

// define CEEDUMP options
#define CEEDUMP_OPT "THREAD(CURRENT) TRACEBACK FILES"

// define parms passed to GETSTCK
typedef struct tagGETSTCK_INPUT_PARMS    // input parms structure
{
char eyecatcher??(4??);       // eye catcher
long version;                 // version
long function;                // request
long returnValue??(3??);      //  returned value
} GETSTCK_INPUT_PARMS;

#define Return_STCK   1
#define Return_STCKF  2
#define Return_STCKE  3
```

```
// prototype GETSTCK
int GETSTCK(GETSTCK_INPUT_PARMS *);

int main()                // main c routine
{

 // define CEEDUMP dump title
 _CHAR80 title = "CLOCKC CEEDUMP - storage -diagnoistics ";
 _CHAR255 options;   // CEEDUMP options
 _FEEDBACK fc;
 // define parameters passed to GETSTCK
  GETSTCK_INPUT_PARMS parms;
  int rc = 1;

  // initialise storage
  memset(options,' ',sizeof(options));
  memcpy(options,CEEDUMP_OPT,sizeof(CEEDUMP_OPT)-1);

  // say we starting
  printf("CLOCKC Started \n");

  // initialise our parameter block
  // this is the area we pass to GETSTCK
  memcpy(&parms.eyecatcher,"GETS",4);
  parms.version = 1;                // version 1 of interface
  parms.function = Return_STCKF;    // return STCKF value

  // invoke GETSTCK
  rc = GETSTCK(&parms);

  // dbebugging - use CEEDUMP to dump our storage area
  printf("GETSTCK_INPUT_PARMS located at %p \n",&parms);
  CEE3DMP(title,options,&fc);
  printf("returnedValue %8.8x %8.8x %8.8x \n",
          parms.returnValue??(0??),
          parms.returnValue??(1??),
          parms.returnValue??(2??));

  // printc RC - should be the same as the request code - else
  // it failed
```

```
  printf("CLOCKC ended rc(%ld) \n",rc);
  return(rc);
}
```

```
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                                    * * * * *   P R O L O G   * * * * *

  Compile Time Library . . . . . . . : 410D0000
  Command options:
     Program name. . . . . . . . . . : 'SMORSA.BOSTON.ASM.SOURCE(CLOCKC)'
     Compiler options. . . . . . . . : *NOGONUMBER *NOALIAS    *NORENT     *TERMINAL   *NOUPCONV   *SOURCE     *LIST
                                     : *XREF       *NOAGG      *NOPPONLY   *EXPMAC     *NOSHOWINC  *OFFSET     *MEMORY     *SSCOMM
                                     : *NOSHOWMACROS           *SKIPSRC(SHOW)          *NOREPORT   *NOMAKEDEP  *PREFETCH
                                     : *LONGNAME   *START      *EXECOPS    *ARGPARSE   *NOEXPORTALL*NODLL(NOCALLBACKANY)
                                     : *NOLIBANSI  *NOWSIZEOF  *REDIR      *ANSIALIAS  *DIGRAPH    *NOROCONST  *ROSTRING
                                     : *TUNE(5)    *ARCH(5)    *SPILL(128) *MAXMEM(2097152)        *NOCOMPACT
                                     : *TARGET(LE,CURRENT)     *FLAG(I)    *NOTEST(SYM,BLOCK,LINE,PATH,HOOK)   *NOOPTIMIZE
                                     : *NOINLINE(AUTO,NOREPORT,100,1000)   *NESTINC(255)           *BITFIELD(UNSIGNED)
                                     : *NOINFO
                                     : *NODFP
                                     : *FLOAT(HEX,FOLD,NOMAF,AFP(NOVOLATILE))          *STRICT
                                     : *NOCOMPRESS *NOSTRICT_INDUCTION     *AGGRCOPY(NOOVERLAP)    *CHARS(UNSIGNED)
                                     : *NOIGNERRNO
                                     : *NOINITAUTO
                                     : *CSECT()
                                     : *NOEVENTS
                                     : *ASSERT(RESTRICT)
                                     : *NORESTRICT
                                     : *OBJECT
                                     : *NOGENASM
                                     : *OPTFILE(DD:COPTIONS)
                                     : *NOSERVICE
                                     : *NOOE
                                     : *NOIPA
                                     : *SEARCH(//'CEE.SCEEH.+')
                                     : *NOLSEARCH
                                     : *NOLOCALE   *HALT(16)   *PLIST(HOST)
                                     : *NOCONVLIT
                                     : *NOASCII
                                     : *GOFF       *ILP32      *NOWARN64   *NOHGPR(NOPRESERVE)     *NOHOT      *NOMETAL    *NOARMODE
                                     : *NOXPLINK(NOBACKCHAIN,NOSTOREARGS,NOCALLBACK,GUARD,OSCALL(NOSTACK))
                                     : *ENUMSIZE(SMALL)
```

```
                                : *NOHALTONMSG
                                : *NOSUPPRESS
                                : *NORTCHECK
                                : *NODEBUG
                                : *NOSQL
                                : *NOCICS
                                : *UNROLL(AUTO)
                                : *KEYWORD()
                                : *NOKEYWORD(typeof)
                                : *NOSEVERITY
                                : *NODSAUSER
    Version Macros. . . . . : __COMPILER_VER__=0x410D0000 __LIBREL__=0x410D0000 __TARGET_LIB__=0x410D0000
    Language level. . . . . : *EXTENDED:NOTEXTAFTERENDIF
    Source margins. . . . . :
      Varying length. . . . . : 1 - 32767
      Fixed length. . . . . : 1 - 72
    Sequence columns. . . . . :
      Varying length. . . . . : none
      Fixed length. . . . . : 73 - 80

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                                  * * * * *   P R O L O G   * * * * *

                              * * * * *   E N D   O F   P R O L O G   * * * * *
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                                   * * * * *   S O U R C E   * * * * *

  LINE  STMT                                                                                                    SEQNBR INCNO
             *...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+....8....+....9....+..*
    1       |/* copyright IBM UK LTD 2013                              */                                    |      1
    2       |/* sample c program to invoke assembler routine           */                                    |      2
    3       |/* the assembler routine does not require any working storage*/                                  |      3
    4       |                                                                                                |      4
    5       |#include <stdio.h>                                                                              |      5
    6       |#include <leawi.h>                                                                              |      6
    7       |#include <stdlib.h>                                                                             |      7
    8       |#include <string.h>                                                                             |      8
    9       |#include <ceeedcct.h>                                                                           |      9
   10       |                                                                                                |     10
   11       |#pragma linkage(GETSTCK,OS)              // use OS linkage                                      |     11
   12       |                                                                                                |     12
   13       |// define CEEDUMP options                                                                       |     13
   14       |#define CEEDUMP_OPT "THREAD(CURRENT) TRACEBACK FILES"                                          |     14
   15       |                                                                                                |     15
   16       |// define parms passed to GETSTCK                                                               |     16
   17       |typedef struct tagGETSTCK_INPUT_PARMS    // input parms structure                               |     17
```

```
   18       |{                                                                                |     18
   19       |char eyecatcher??(4??);       // eye catcher                                     |     19
   19       +char eyecatcherÝ4¨;       // eye catcher                                         +     19
   20       |long version;                // version                                         |     20
   21       |long function;               // request                                         |     21
   22       |long returnValue??(3??);     //  returned value                                 |     22
   22       +long returnValueÝ3¨;      //  returned value                                    +     22
   23       |} GETSTCK_INPUT_PARMS;                                                          |     23
   24       |                                                                                |     24
   25       |#define Return_STCK   1                                                        |     25
   26       |#define Return_STCKF  2                                                        |     26
   27       |#define Return_STCKE  3                                                        |     27
   28       |                                                                                |     28
   29       |// prototype GETSTCK                                                           |     29
   30       |int GETSTCK(GETSTCK_INPUT_PARMS *);                                           |     30
   31       |                                                                                |     31
   32       |int main()               // main c routine                                      |     32
   33       |{                                                                               |     33
   34       |                                                                                |     34
   35       | // define CEEDUMP dump title                                                  |     35
   36     1 | _CHAR80 title = "CLOCKC CEEDUMP - storage -diagnoistics ";                    |     36
   37       | _CHAR255 options;   // CEEDUMP options                                       |     37
   38       | _FEEDBACK fc;                                                                  |     38
   39       | // define parameters passed to GETSTCK                                       |     39
   40       |  GETSTCK_INPUT_PARMS parms;                                                    |     40
   41     2 |  int rc = 1;                                                                   |     41
   42       |                                                                                |     42
   43       |  // initialise storage                                                         |     43
   44     3 |  memset(options,' ',sizeof(options));                                         |     44
   44     3 +   __memset(options,' ',sizeof(options));                                     +     44
   45     4 |  memcpy(options,CEEDUMP_OPT,sizeof(CEEDUMP_OPT)-1);                           |     45
   45     4 +   __memcpy(options,"THREAD(CURRENT) TRACEBACK FILES",sizeof("THREAD(CURRENT) TRACEBACK FILES")-1);+     45
   46       |                                                                                |     46
   47       |  // say we starting                                                            |     47
   48     5 |  printf("CLOCKC Started \n");                                                 |     48
   49       |                                                                                |     49
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                                    * * * * *   S O U R C E   * * * * *

  LINE  STMT                                                                                  SEQNBR INCNO
             *...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+....8....+....9....+..*
   50       |  // initialise our parameter block                                            |     50
   51       |  // this is the area we pass to GETSTCK                                      |     51
   52     6 |  memcpy(&parms.eyecatcher,"GETS",4);                                          |     52
   52     6 +   __memcpy(&parms.eyecatcher,"GETS",4);                                     +     52
   53     7 |  parms.version = 1;                // version 1 of interface                  |     53
   54     8 |  parms.function = Return_STCKF;    // return STCKF value                      |     54
   54     8 +  parms.function = 2;    // return STCKF value                                 +     54
```

```
   55       |                                                                                                    |     55
   56       |  // invoke GETSTCK                                                                                 |     56
   57     9 |  rc = GETSTCK(&parms);                                                                             |     57
   58       |                                                                                                    |     58
   59       |  // dbebugging - use CEEDUMP to dump our storage area                                              |     59
   60    10 |  printf("GETSTCK_INPUT_PARMS located at %p \n",&parms);                                            |     60
   61    11 |  CEE3DMP(title,options,&fc);                                                                       |     61
   62       |  printf("returnedValue %8.8x %8.8x %8.8x \n",                                                      |     62
   63       |          parms.returnValue??(0??),                                                                 |     63
   63       +          parms.returnValueÝ0¨,                                                                    +     63
   64       |          parms.returnValue??(1??),                                                                 |     64
   64       +          parms.returnValueÝ1¨,                                                                    +     64
   65    12 |          parms.returnValue??(2??));                                                                |     65
   65    12 +          parms.returnValueÝ2¨);                                                                   +     65
   66       |                                                                                                    |     66
   67       |  // printc RC - should be the same as the request code - else                                      |     67
   68       |  // it failed                                                                                      |     68
   69    13 |  printf("CLOCKC ended rc(%ld) \n",rc);                                                             |     69
   70    14 |  return(rc);                                                                                       |     70
   71       |}                                                                                                   |     71
                              * * * * *  E N D  O F  S O U R C E  * * * * *
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                         * * * * *  I N C L U D E S  * * * * *

 INCLUDE FILES  ---  FILE#   NAME

                         1   PP.ADLE370.ZOS113.SCEEH.H(STDIO)
                         2   PP.ADLE370.ZOS113.SCEEH.H(FEATURES)
                         3   PP.ADLE370.ZOS113.SCEEH.SYS.H(TYPES)
                         4   PP.ADLE370.ZOS113.SCEEH.H(LEAWI)
                         5   PP.ADLE370.ZOS113.SCEEH.H(STDLIB)
                         6   PP.ADLE370.ZOS113.SCEEH.H(BUILTINS)
                         7   PP.ADLE370.ZOS113.SCEEH.H(STDDEF)
                         8   PP.ADLE370.ZOS113.SCEEH.H(STRING)
                         9   PP.ADLE370.ZOS113.SCEEH.H(CEEEDCCT)

                          * * * * *  E N D  O F  I N C L U D E S  * * * * *
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                              * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>

 ___valist           5-1:142         Class = typedef, Length = 8
                                     Type = arrayÝ2¨ of pointer to unsigned char
                                     5-1:145, 5-1:456, 5-1:457, 5-1:459
```

```
__abend             5-1:895         Type = struct with no tag in union at offset 0

__abs                               Class = extern
                                    Type = function returning int
                                    7-5:400

__alloc             5-1:905         Type = struct with no tag in union at offset 0

__alloca                            Class = extern
                                    Type = function returning pointer to void
                                    7-5:851

__amrc_noseek_to_seek
                    5-1:938         Type = unsigned char in struct __amrctype at offset 232

__amrc_pad          5-1:940         Type = arrayÝ23¨ of unsigned char in struct __amrctype at offset 233

__amrc_ptr          5-1:947         Class = typedef, Length = 4
                                    Type = pointer to struct __amrctype

__amrc_type         5-1:943         Class = typedef, Length = 256
                                    Type = struct __amrctype
                                    5-1:947

__amrctype          5-1:877         Class = struct tag

__amrc2_ptr         5-1:961         Class = typedef, Length = 4
                                    Type = pointer to struct __amrc2type

__amrc2_type        5-1:957         Class = typedef, Length = 32
                                    Type = struct __amrc2type
                                    5-1:961

__amrc2type         5-1:952         Class = struct tag

__blksize           5-1:729         Type = unsigned long in struct __fileData at offset 8

__bufPtr            5-1:78          Type = pointer to unsigned char in struct __file at offset 0

__cds                               Class = extern
                                    Type = function returning int
                                    7-5:748

__cds1                              Class = extern
                                    Type = function returning int
                                    7-5:762

__cfdr                              Class = extern
```

* * * * * C R O S S R E F E R E N C E L I S T I N G * * * * *

IDENTIFIER	DEFINITION	ATTRIBUTES <SEQNBR>-<FILE NO>:<FILE LINE NO>
		Type = function returning int 7-6:545
__cfer		Class = extern Type = function returning int 7-6:544
__cfxr		Class = extern Type = function returning int 7-6:546
__clcl		Class = extern Type = function returning int 7-6:48
__clcle		Class = extern Type = function returning int 7-6:962
__cntlinterpret	5-1:83	Type = unsigned int:1 in struct __file at offset 20(0)
__code	5-1:906	Type = union with no tag in struct __amrctype at offset 0
__countIn	5-1:79	Type = long in struct __file at offset 4
__countOut	5-1:80	Type = long in struct __file at offset 8
__cs		Class = extern Type = function returning int 7-5:710
__cs1		Class = extern Type = function returning int 7-5:724
__cusp	5-1:201	Class = typedef, Length = 4 Type = pointer to const unsigned short
__cvb		Class = extern Type = function returning int 7-6:943
__cvbg		Class = extern Type = function returning long long

```
                                7-6:994

__cvd                           Class = extern
                                Type = function returning void
                                7-6:944

__cvdg                          Class = extern
                                Type = function returning void
                                7-6:995
```


* * * * * C R O S S R E F E R E N C E L I S T I N G * * * * *

IDENTIFIER	DEFINITION	ATTRIBUTES <SEQNBR>-<FILE NO>:<FILE LINE NO>
__device	5-1:728	Type = enum with no tag in struct __fileData at offset 4
__device_specific	5-1:745	Type = union with no tag in struct __fileData at offset 16
__device_t	5-1:663	Class = typedef, Length = 1 Type = enum with no tag 5-1:728
__discarddata		Class = extern Type = function returning int 7-5:1120
__disk	5-1:643	Class = enumeration constant: 0, Length = 4 Type = int
__disk	5-1:743	Type = struct with no tag in union at offset 0
__disk_access_method	5-1:740	Type = unsigned char in struct at offset 2
__disk_noseek_to_seek	5-1:741	Type = unsigned char in struct at offset 3
__disk_reserve	5-1:742	Type = arrayÝ2¨ of long in struct at offset 4
__disk_vsam_type	5-1:739	Type = unsigned short in struct at offset 0
__div_t	7-5:57	Class = struct tag
__dsname	5-1:746	Type = pointer to unsigned char in struct __fileData at offset 28
__dsorgConcat	5-1:703	Type = unsigned int:1 in struct __fileData at offset 1(3)

```
 __dsorgHiper        5-1:705         Type = unsigned int:1 in struct __fileData at offset 1(5)

 __dsorgHFS          5-1:710         Type = unsigned int:1 in struct __fileData at offset 2(0)

 __dsorgMem          5-1:704         Type = unsigned int:1 in struct __fileData at offset 1(4)

 __dsorgPDSdir       5-1:701         Type = unsigned int:1 in struct __fileData at offset 1(1)

 __dsorgPDSmem       5-1:700         Type = unsigned int:1 in struct __fileData at offset 1(0)

 __dsorgPDSE         5-1:717         Type = unsigned int:1 in struct __fileData at offset 2(7)

 __dsorgPO           5-1:699         Type = unsigned int:1 in struct __fileData at offset 0(7)

 __dsorgPS           5-1:702         Type = unsigned int:1 in struct __fileData at offset 1(2)

 __dsorgTemp         5-1:706         Type = unsigned int:1 in struct __fileData at offset 1(6)

 __dsorgVSAM         5-1:707         Type = unsigned int:1 in struct __fileData at offset 1(7)
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                                * * * * *  C R O S S   R E F E R E N C E   L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>

 __dummy             5-1:648         Class = enumeration constant: 6, Length = 4
                                     Type = int

 __dword             7-6:1422        Type = unsigned long long in union at offset 0

 __dword             7-6:1418        Class = struct tag

 __ed                                Class = extern
                                     Type = function returning int
                                     7-6:199

 __edmk                              Class = extern
                                     Type = function returning int
                                     7-6:200

 __error             5-1:889         Type = int in union at offset 0

 __error2            5-1:953         Type = int in struct __amrc2type at offset 0

 __fcb_ascii         5-1:84          Type = unsigned int:1 in struct __file at offset 20(1)

 __fcb_orientation   5-1:85          Type = unsigned int:2 in struct __file at offset 20(2)
```

```
__fcbgetc           5-1:81          Type = pointer to function returning int in struct __file at offset 12

__fcbputc           5-1:82          Type = pointer to function returning int in struct __file at offset 16

__fdbk              5-1:900         Type = unsigned char in struct at offset 3

__fdbk_fill         5-1:897         Type = unsigned char in struct at offset 0

__feedback          5-1:901         Type = struct with no tag in union at offset 0

__ffile             5-1:88          Class = struct tag
                                    5-1:93, 5-1:99

__fidr                              Class = extern
                                    Type = function returning double
                                    7-6:542

__fier                              Class = extern
                                    Type = function returning float
                                    7-6:541

__file              5-1:73          Class = struct tag
                                    5-1:74, 5-1:75, 5-1:90

__fileptr           5-1:955         Type = pointer to struct __ffile in struct __amrc2type at offset 4

__fileData          5-1:691         Class = struct tag
                                    5-1:750
```


* * * * * C R O S S R E F E R E N C E L I S T I N G * * * * *

```
IDENTIFIER          DEFINITION      ATTRIBUTES
                                    <SEQNBR>-<FILE NO>:<FILE LINE NO>
__fill              5-1:864         Type = unsigned int in struct at offset 0

__filler1           5-1:626         Type = unsigned char in struct __S99emparms at offset 3

__fill2             5-1:920         Type = arrayÝ2¨ of unsigned int in struct at offset 136

__fixr                              Class = extern
                                    Type = function returning long double
                                    7-6:543

__fmaddl                            Class = extern
                                    Type = function returning long double
                                    7-6:220
```

```
__fortrc                          Class = extern
                                  Type = function returning int
                                  7-5:623

__fp                5-1:90        Type = pointer to struct __file in struct __ffile at offset 0

__fpos_elem         5-1:104       Type = arrayÝ8¨ of long in struct __fpos_t at offset 0

__fpos_t            5-1:103       Class = struct tag
                                  5-1:107

__ftncd             5-1:899       Type = unsigned char in struct at offset 2

__func__            33-0:33       Class = static, Length = 5
                                  Type = arrayÝ5¨ of const unsigned char in function main

__getenv                          Class = extern
                                  Type = function returning pointer to unsigned char
                                  7-5:447

__heaprpt                         Class = extern
                                  Type = function returning int
                                  7-5:475

__hfs               5-1:655       Class = enumeration constant: 9, Length = 4
                                  Type = int

__high_word         7-6:1419      Type = unsigned int in struct __dword at offset 0

__hiperspace        5-1:656       Class = enumeration constant: 10, Length = 4
                                  Type = int

__last_op           5-1:913       Type = unsigned int in struct __amrctype at offset 8

__ldiv_t            7-5:67        Class = struct tag

__len               5-1:916       Type = unsigned int in struct at offset 4

__len_fill          5-1:915       Type = unsigned int in struct at offset 0
```


```
                          * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER         DEFINITION    ATTRIBUTES
                                  <SEQNBR>-<FILE NO>:<FILE LINE NO>

__librel                          Class = extern
                                  Type = function returning int
                                  7-5:663
```

```
__lndr                          Class = extern
                                Type = function returning int
                                7-6:475

__lner                          Class = extern
                                Type = function returning int
                                7-6:474

__lnxr                          Class = extern
                                Type = function returning int
                                7-6:548

__low_word          7-6:1420    Type = unsigned int in struct __dword at offset 4

__lpdr                          Class = extern
                                Type = function returning int
                                7-6:473

__lper                          Class = extern
                                Type = function returning int
                                7-6:472

__lpxr                          Class = extern
                                Type = function returning int
                                7-6:547

__lrv                           Class = extern
                                Type = function returning unsigned int
                                7-6:660

__lrvh                          Class = extern
                                Type = function returning unsigned short
                                7-6:659

__maxreclen         5-1:730     Type = unsigned long in struct __fileData at offset 12

__memchr                        Class = extern
                                Type = function returning pointer to void
                                8-8:108

__memcmp                        Class = extern
                                Type = function returning int
                                8-8:110

__memcpy                        Class = extern
                                Type = function returning pointer to void
                                8-8:109, 45-0:45, 52-0:52
```

* * * * * C R O S S R E F E R E N C E L I S T I N G * * * * *

IDENTIFIER	DEFINITION	ATTRIBUTES <SEQNBR>-<FILE NO>:<FILE LINE NO>
__memory	5-1:654	Class = enumeration constant: 8, Length = 4 Type = int
__memset		Class = extern Type = function returning pointer to void 8-8:111, 44-0:44
__modeflag	5-1:716	Type = unsigned int:4 in struct __fileData at offset 2(3)
__msg	5-1:923	Type = struct with no tag in struct __amrctype at offset 12
__msgfile	5-1:651	Class = enumeration constant: 7, Length = 4 Type = int
__msgrtn	5-1:659	Class = enumeration constant: 11, Length = 4 Type = int
__mvcle		Class = extern Type = function returning int 7-6:964
__nc		Class = extern Type = function returning int 7-6:204
__oc		Class = extern Type = function returning int 7-6:205
__openmode	5-1:715	Type = unsigned int:2 in struct __fileData at offset 2(1)
__other	5-1:662	Class = enumeration constant: 255, Length = 4 Type = int
__pack		Class = extern Type = function returning void 7-6:207
__parmr0	5-1:918	Type = unsigned int in struct at offset 128
__parmr1	5-1:919	Type = unsigned int in struct at offset 132
__plo_entry_t	7-6:1423	Class = typedef, Length = 8 Type = union with no tag

```
__plo_plist         7-6:1435        Class = typedef, Length = 144
                                    Type = arrayÝ18¨ of union with no tag

__plo_uintptr_ullptr_t
                    7-6:1433        Class = typedef, Length = 4
                                    Type = union with no tag

__plo_ull_ullptr_t  7-6:1428        Class = typedef, Length = 8
```



```
                              * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

IDENTIFIER          DEFINITION      ATTRIBUTES
                                    <SEQNBR>-<FILE NO>:<FILE LINE NO>
                                    Type = union with no tag
                                    7-6:1435

__plo_CL                            Class = extern
                                    Type = function returning int
                                    7-6:1743

__plo_CS                            Class = extern
                                    Type = function returning int
                                    7-6:1746

__plo_CSDST                         Class = extern
                                    Type = function returning int
                                    7-6:1758

__plo_CSST                          Class = extern
                                    Type = function returning int
                                    7-6:1754

__plo_CSTST                         Class = extern
                                    Type = function returning int
                                    7-6:1761

__plo_DCS                           Class = extern
                                    Type = function returning int
                                    7-6:1749

__printer           5-1:645         Class = enumeration constant: 2, Length = 4
                                    Type = int

__ptr               7-6:1427        Type = pointer to unsigned long long in union at offset 0

__rc                5-1:894         Type = unsigned short in struct at offset 2
```

```
 __rc                5-1:898         Type = unsigned char in struct at offset 1

 __recfmASA          5-1:697         Type = unsigned int:1 in struct __fileData at offset 0(5)

 __recfmB            5-1:722         Type = unsigned int:1 in struct __fileData at offset 3(4)

 __recfmBlk          5-1:696         Type = unsigned int:1 in struct __fileData at offset 0(4)

 __recfmF            5-1:692         Type = unsigned int:1 in struct __fileData at offset 0(0)

 __recfmM            5-1:698         Type = unsigned int:1 in struct __fileData at offset 0(6)

 __recfmS            5-1:695         Type = unsigned int:1 in struct __fileData at offset 0(3)

 __recfmU            5-1:694         Type = unsigned int:1 in struct __fileData at offset 0(2)

 __recfmV            5-1:693         Type = unsigned int:1 in struct __fileData at offset 0(1)

 __recnum            5-1:865         Type = unsigned int in struct at offset 4
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                              * * * * *  C R O S S   R E F E R E N C E   L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>

 __reserved          5-1:609         Type = unsigned char in struct __S99rbx at offset 16

 __reserved          5-1:956         Type = arrayÝ6¨ of int in struct __amrc2type at offset 8

 __reserve2          5-1:723         Type = unsigned int:3 in struct __fileData at offset 3(5)

 __reserve4          5-1:747         Type = pointer to void in struct __fileData at offset 32

 __reserv1           5-1:631         Type = int in struct __S99emparms at offset 20

 __reserv2           5-1:617         Type = int in struct __S99rbx at offset 32

 __reserv2           5-1:632         Type = int in struct __S99emparms at offset 24

 __rplfdbwd          5-1:926         Type = arrayÝ4¨ of unsigned char in struct __amrctype at offset 220

 __rrds_key_type     5-1:870         Class = typedef, Length = 8
                                     Type = struct with no tag

 __s_dword           7-6:1421        Type = struct __dword in union at offset 0

 __snprtf                            Class = extern
                                     Type = function returning int
```

```
                                5-1:1724

 __sqdr                         Class = extern
                                Type = function returning double
                                7-6:477

 __sqer                         Class = extern
                                Type = function returning float
                                7-6:476

 __sqxr                         Class = extern
                                Type = function returning long double
                                7-6:549

 __stck                         Class = extern
                                Type = function returning int
                                7-6:64

 __stcke                        Class = extern
                                Type = function returning int
                                7-6:79

 __stcke_t          7-6:122     Class = typedef, Length = 16
                                Type = packed struct __stcke_tag

 __stcke_tag        7-6:118     Class = struct tag

 __stcke_tod        7-6:107     Class = struct tag
```



```
                          * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER         DEFINITION  ATTRIBUTES
                                <SEQNBR>-<FILE NO>:<FILE LINE NO>
 __stcke_tod_t      7-6:116     Class = typedef, Length = 13
                                Type = packed struct __stcke_tod
                                7-6:120

 __str              5-1:917     Type = arrayÝ120¨ of unsigned char in struct at offset 8

 __strcat                       Class = extern
                                Type = function returning pointer to unsigned char
                                8-8:113

 __strchr                       Class = extern
                                Type = function returning pointer to unsigned char
                                8-8:116
```

```
__strcmp                        Class = extern
                                Type = function returning int
                                8-8:115

__strcpy                        Class = extern
                                Type = function returning pointer to unsigned char
                                8-8:112

__strlen                        Class = extern
                                Type = function returning unsigned int
                                8-8:114

__strncat                       Class = extern
                                Type = function returning pointer to unsigned char
                                8-8:125

__strncmp                       Class = extern
                                Type = function returning int
                                8-8:126

__strncpy                       Class = extern
                                Type = function returning pointer to unsigned char
                                8-8:124

__strrchr                       Class = extern
                                Type = function returning pointer to unsigned char
                                8-8:117

__strv                          Class = extern
                                Type = function returning void
                                7-6:662

__strvh                         Class = extern
                                Type = function returning void
                                7-6:661

__str2              5-1:921     Type = arrayÝ64¨ of unsigned char in struct at offset 144

__svc99_error       5-1:904     Type = unsigned short in struct at offset 2
```


```
                          * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>

 __svc99_info        5-1:903         Type = unsigned short in struct at offset 0

 __syscode           5-1:893         Type = unsigned short in struct at offset 0
```

```
__tape              5-1:646         Class = enumeration constant: 3, Length = 4
                                    Type = int

__tbdr                              Class = extern
                                    Type = function returning int
                                    7-6:630

__tbedr                             Class = extern
                                    Type = function returning int
                                    7-6:629

__tdq               5-1:647         Class = enumeration constant: 5, Length = 4
                                    Type = int

__terminal          5-1:644         Class = enumeration constant: 1, Length = 4
                                    Type = int

__thder                             Class = extern
                                    Type = function returning int
                                    7-6:627

__thdr                              Class = extern
                                    Type = function returning int
                                    7-6:628

__tr                                Class = extern
                                    Type = function returning void
                                    7-6:166

__tre                               Class = extern
                                    Type = function returning int
                                    7-6:980

__trt                               Class = extern
                                    Type = function returning int
                                    7-6:202

__uheap_bytes_alloc 7-5:88          Type = long in struct at offset 4

__uheap_bytes_free  7-5:89          Type = long in struct at offset 8

__uheap_size        7-5:87          Type = long in struct at offset 0

__uint_ptr          7-6:1431        Type = pointer to unsigned int in union at offset 0

__ull_ptr           7-6:1432        Type = pointer to unsigned long long in union at offset 0

__unpk                              Class = extern
```

```
                          * * * * *  C R O S S   R E F E R E N C E   L I S T I N G  * * * * *

IDENTIFIER          DEFINITION      ATTRIBUTES
                                    <SEQNBR>-<FILE NO>:<FILE LINE NO>
                                    Type = function returning void
                                    7-6:209

__val               7-6:1426        Type = unsigned long long in union at offset 0

__vsam              5-1:736         Type = struct with no tag in union at offset 0

__vsam_keylen       5-1:734         Type = unsigned long in struct at offset 4

__vsam_type         5-1:733         Type = unsigned short in struct at offset 0

__vsam_RKP          5-1:735         Type = unsigned long in struct at offset 8

__vsamEA            5-1:721         Type = unsigned int:1 in struct __fileData at offset 3(3)

__vsamRLS           5-1:719         Type = unsigned int:3 in struct __fileData at offset 3(0)

__xc                                Class = extern
                                    Type = function returning int
                                    7-6:206

__zap                               Class = extern
                                    Type = function returning int
                                    7-6:945

__Envn                              Class = extern
                                    Type = function returning pointer to pointer to pointer to unsigned char
                                    7-5:813

__EnvnA                             Class = extern
                                    Type = function returning pointer to pointer to pointer to unsigned char
                                    7-5:812

__EMBUFP            5-1:630         Type = pointer to void in struct __S99emparms at offset 16

__EMCPPLP           5-1:629         Type = pointer to void in struct __S99emparms at offset 12

__EMFUNCT           5-1:623         Type = unsigned char in struct __S99emparms at offset 0

__EMIDNUM           5-1:624         Type = unsigned char in struct __S99emparms at offset 1

__EMNMSGBK          5-1:625         Type = unsigned char in struct __S99emparms at offset 2

__EMRETCOD          5-1:628         Type = int in struct __S99emparms at offset 8
```

```
__EMS99RBP          5-1:627         Type = pointer to void in struct __S99emparms at offset 4

__FILEP             5-1:93          Class = typedef, Length = 4
                                    Type = pointer to struct __ffile

__RBA               5-1:907         Type = unsigned int in struct __amrctype at offset 4

__S99emparms        5-1:622         Class = struct tag
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                                * * * * *  C R O S S   R E F E R E N C E   L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
                                     5-1:635

 __S99emparms_t      5-1:635         Class = typedef, Length = 28
                                     Type = struct __S99emparms

 __S99parms          5-1:595         Class = typedef, Length = 20
                                     Type = struct __S99struc
                                     5-1:833

 __S99rbx            5-1:599         Class = struct tag
                                     5-1:620

 __S99rbx_t          5-1:620         Class = typedef, Length = 36
                                     Type = struct __S99rbx

 __S99struc          5-1:578         Class = struct tag
                                     5-1:595

 __S99ECPPL          5-1:608         Type = pointer to void in struct __S99rbx at offset 12

 __S99EERR           5-1:615         Type = unsigned short in struct __S99rbx at offset 28

 __S99EID            5-1:601         Type = arrayÝ6¨ of unsigned char in struct __S99rbx at offset 0

 __S99EINFO          5-1:616         Type = unsigned short in struct __S99rbx at offset 30

 __S99EKEY           5-1:605         Type = unsigned char in struct __S99rbx at offset 9

 __S99EMGSV          5-1:606         Type = unsigned char in struct __S99rbx at offset 10

 __S99EMSGP          5-1:614         Type = pointer to void in struct __S99rbx at offset 24

 __S99ENMSG          5-1:607         Type = unsigned char in struct __S99rbx at offset 11
```

```
 __S99EOPTS          5-1:603         Type = unsigned char in struct __S99rbx at offset 7

 __S99ERCF           5-1:612         Type = unsigned char in struct __S99rbx at offset 19

 __S99ERCO           5-1:611         Type = unsigned char in struct __S99rbx at offset 18

 __S99ERES           5-1:610         Type = unsigned char in struct __S99rbx at offset 17

 __S99ERROR          5-1:584         Type = unsigned short in struct __S99struc at offset 4

 __S99ESUBP          5-1:604         Type = unsigned char in struct __S99rbx at offset 8

 __S99EVER           5-1:602         Type = unsigned char in struct __S99rbx at offset 6

 __S99EWRC           5-1:613         Type = int in struct __S99rbx at offset 20

 __S99FLAG1          5-1:582         Type = unsigned short in struct __S99struc at offset 2

 __S99FLAG2          5-1:590         Type = unsigned int in struct __S99struc at offset 16
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                                * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>

 __S99INFO           5-1:585         Type = unsigned short in struct __S99struc at offset 6

 __S99RBLN           5-1:580         Type = unsigned char in struct __S99struc at offset 0

 __S99S99X           5-1:588         Type = pointer to void in struct __S99struc at offset 12

 __S99TXTPP          5-1:586         Type = pointer to void in struct __S99struc at offset 8

 __S99VERB           5-1:581         Type = unsigned char in struct __S99struc at offset 1

 __XRBA              5-1:932         Type = unsigned long long in struct __amrctype at offset 224

 _gtca                               Class = extern
                                     Type = function returning pointer to const void
                                     5-1:166

 _CEECIB             6-4:110         Class = struct tag
                                     6-4:115, 6-4:116, 6-4:289

 _CEECIB             6-4:289         Class = typedef, Length = 268
                                     Type = struct _CEECIB
                                     6-4:441
```

```
 _CHAR17             6-4:59          Class = typedef, Length = 17
                                     Type = arrayÝ17¨ of unsigned char
                                     6-4:497

 _CHAR2              6-4:56          Class = typedef, Length = 2
                                     Type = arrayÝ2¨ of unsigned char
                                     6-4:369, 6-4:372, 6-4:372, 6-4:375, 6-4:378, 6-4:381, 6-4:381, 6-4:384, 6-4:387, 6-4:390

 _CHAR255            6-4:61          Class = typedef, Length = 255
                                     Type = arrayÝ255¨ of unsigned char
                                     6-4:94, 6-4:457, 37-0:37

 _CHAR3              6-4:57          Class = typedef, Length = 3
                                     Type = arrayÝ3¨ of unsigned char
                                     6-4:350, 6-4:354, 6-4:366, 6-4:378

 _CHAR4              6-4:58          Class = typedef, Length = 4
                                     Type = arrayÝ4¨ of unsigned char
                                     6-4:375, 6-4:378

 _CHAR80             6-4:60          Class = typedef, Length = 80
                                     Type = arrayÝ80¨ of unsigned char
                                     6-4:325, 6-4:346, 6-4:363, 6-4:384, 6-4:387, 6-4:390, 6-4:408, 6-4:432, 6-4:457, 6-4:468,
                                     6-4:474, 36-0:36

 _COMPLEX16          6-4:75          Class = struct tag
                                     6-4:79

 _COMPLEX16          6-4:79          Class = typedef, Length = 32
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                              * * * * *  C R O S S   R E F E R E N C E   L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
                                     Type = struct _COMPLEX16
                                     6-4:543, 6-4:543, 6-4:579, 6-4:579, 6-4:600, 6-4:600, 6-4:621, 6-4:621, 6-4:621, 6-4:657,
                                     6-4:657, 6-4:684, 6-4:684, 6-4:702, 6-4:702, 6-4:720, 6-4:720, 6-4:747, 6-4:747, 6-4:765,
                                     6-4:765, 6-4:783, 6-4:783, 6-4:801, 6-4:801, 6-4:819, 6-4:819, 6-4:870, 6-4:900, 6-4:909,
                                     6-4:909, 6-4:954, 6-4:954, 6-4:954, 6-4:963, 6-4:963, 6-4:963

 _COMPLEX4           6-4:63          Class = struct tag
                                     6-4:67

 _COMPLEX4           6-4:67          Class = typedef, Length = 8
                                     Type = struct _COMPLEX4
                                     6-4:537, 6-4:537, 6-4:573, 6-4:573, 6-4:594, 6-4:594, 6-4:615, 6-4:615, 6-4:615, 6-4:651,
                                     6-4:651, 6-4:678, 6-4:678, 6-4:696, 6-4:696, 6-4:714, 6-4:714, 6-4:741, 6-4:741, 6-4:759,
                                     6-4:759, 6-4:777, 6-4:777, 6-4:795, 6-4:795, 6-4:813, 6-4:813, 6-4:864, 6-4:894, 6-4:903,
```

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                                6-4:903, 6-4:948, 6-4:948, 6-4:948, 6-4:957, 6-4:957, 6-4:957

 _COMPLEX8           6-4:69          Class = struct tag
                                     6-4:73

 _COMPLEX8           6-4:73          Class = typedef, Length = 16
                                     Type = struct _COMPLEX8
                                     6-4:540, 6-4:540, 6-4:576, 6-4:576, 6-4:597, 6-4:597, 6-4:618, 6-4:618, 6-4:618, 6-4:654,
                                     6-4:654, 6-4:681, 6-4:681, 6-4:699, 6-4:699, 6-4:717, 6-4:717, 6-4:744, 6-4:744, 6-4:762,
                                     6-4:762, 6-4:780, 6-4:780, 6-4:798, 6-4:798, 6-4:816, 6-4:816, 6-4:867, 6-4:897, 6-4:906,
                                     6-4:906, 6-4:951, 6-4:951, 6-4:951, 6-4:960, 6-4:960, 6-4:960

 _ENTRY              6-4:104         Class = struct tag
                                     6-4:108

 _ENTRY              6-4:108         Class = typedef, Length = 8
                                     Type = struct _ENTRY
                                     6-4:147, 6-4:393, 6-4:396

 _FEEDBACK           6-4:81          Class = struct tag
                                     6-4:90

 _FEEDBACK           6-4:90          Class = typedef, Length = 12
                                     Type = struct _FEEDBACK
                                     6-4:125, 6-4:129, 6-4:325, 6-4:328, 6-4:331, 6-4:334, 6-4:334, 6-4:337, 6-4:340, 6-4:343,
                                     6-4:346, 6-4:350, 6-4:350, 6-4:353, 6-4:354, 6-4:357, 6-4:360, 6-4:360, 6-4:363, 6-4:363,
                                     6-4:366, 6-4:369, 6-4:372, 6-4:375, 6-4:378, 6-4:381, 6-4:384, 6-4:387, 6-4:390, 6-4:393,
                                     6-4:396, 6-4:399, 6-4:402, 6-4:405, 6-4:405, 6-4:408, 6-4:411, 6-4:411, 6-4:414, 6-4:417,
                                     6-4:417, 6-4:420, 6-4:423, 6-4:426, 6-4:429, 6-4:432, 6-4:435, 6-4:441, 6-4:441, 6-4:444,
                                     6-4:457, 6-4:465, 6-4:468, 6-4:471, 6-4:474, 6-4:478, 6-4:482, 6-4:485, 6-4:488, 6-4:491,
                                     6-4:494, 6-4:497, 6-4:500, 6-4:503, 6-4:506, 6-4:509, 6-4:528, 6-4:531, 6-4:534, 6-4:537,
                                     6-4:540, 6-4:543, 6-4:546, 6-4:549, 6-4:552, 6-4:555, 6-4:558, 6-4:561, 6-4:564, 6-4:567,
                                     6-4:570, 6-4:573, 6-4:576, 6-4:579, 6-4:582, 6-4:585, 6-4:588, 6-4:591, 6-4:594, 6-4:597,
                                     6-4:600, 6-4:603, 6-4:606, 6-4:609, 6-4:612, 6-4:615, 6-4:618, 6-4:621, 6-4:624, 6-4:627,
                                     6-4:630, 6-4:633, 6-4:636, 6-4:639, 6-4:642, 6-4:645, 6-4:648, 6-4:651, 6-4:654, 6-4:657,
                                     6-4:660, 6-4:663, 6-4:666, 6-4:669, 6-4:672, 6-4:675, 6-4:678, 6-4:681, 6-4:684, 6-4:687,
                                     6-4:690, 6-4:693, 6-4:696, 6-4:699, 6-4:702, 6-4:705, 6-4:708, 6-4:711, 6-4:714, 6-4:717,
                                     6-4:720, 6-4:723, 6-4:726, 6-4:729, 6-4:732, 6-4:735, 6-4:738, 6-4:741, 6-4:744, 6-4:747,
                                     6-4:750, 6-4:753, 6-4:756, 6-4:759, 6-4:762, 6-4:765, 6-4:768, 6-4:771, 6-4:774, 6-4:777,
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                              * * * * *  C R O S S   R E F E R E N C E   L I S T I N G   * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
                                     6-4:780, 6-4:783, 6-4:786, 6-4:789, 6-4:792, 6-4:795, 6-4:798, 6-4:801, 6-4:804, 6-4:807,
                                     6-4:810, 6-4:813, 6-4:816, 6-4:819, 6-4:822, 6-4:825, 6-4:828, 6-4:831, 6-4:834, 6-4:837,
                                     6-4:840, 6-4:843, 6-4:846, 6-4:849, 6-4:852, 6-4:855, 6-4:858, 6-4:861, 6-4:864, 6-4:867,
                                     6-4:870, 6-4:873, 6-4:876, 6-4:879, 6-4:882, 6-4:885, 6-4:888, 6-4:891, 6-4:894, 6-4:897,
```

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                        6-4:900, 6-4:903, 6-4:906, 6-4:909, 6-4:912, 6-4:915, 6-4:918, 6-4:921, 6-4:924, 6-4:927,
                        6-4:930, 6-4:933, 6-4:936, 6-4:939, 6-4:942, 6-4:945, 6-4:948, 6-4:951, 6-4:954, 6-4:957,
                        6-4:960, 6-4:963, 6-4:967, 6-4:971, 6-4:978, 6-4:981, 6-4:984, 6-4:987, 6-4:990, 6-4:993,
                        6-4:996, 38-0:38

_FLOAT16        6-4:54  Class = typedef, Length = 16
                        Type = long double
                        6-4:534, 6-4:534, 6-4:552, 6-4:552, 6-4:561, 6-4:561, 6-4:570, 6-4:570, 6-4:591, 6-4:591,
                        6-4:609, 6-4:609, 6-4:609, 6-4:612, 6-4:612, 6-4:630, 6-4:630, 6-4:639, 6-4:639, 6-4:648,
                        6-4:648, 6-4:666, 6-4:666, 6-4:666, 6-4:675, 6-4:675, 6-4:693, 6-4:693, 6-4:711, 6-4:711,
                        6-4:729, 6-4:729, 6-4:738, 6-4:738, 6-4:756, 6-4:756, 6-4:774, 6-4:774, 6-4:792, 6-4:792,
                        6-4:810, 6-4:810, 6-4:828, 6-4:828, 6-4:837, 6-4:837, 6-4:861, 6-4:861, 6-4:870, 6-4:882,
                        6-4:882, 6-4:882, 6-4:891, 6-4:891, 6-4:900, 6-4:933, 6-4:933, 6-4:933, 6-4:945, 6-4:945,
                        6-4:945

_FLOAT4         6-4:52  Class = typedef, Length = 4
                        Type = float
                        6-4:528, 6-4:528, 6-4:546, 6-4:546, 6-4:555, 6-4:555, 6-4:564, 6-4:564, 6-4:585, 6-4:585,
                        6-4:603, 6-4:603, 6-4:603, 6-4:624, 6-4:624, 6-4:633, 6-4:633, 6-4:642, 6-4:642, 6-4:660,
                        6-4:660, 6-4:660, 6-4:669, 6-4:669, 6-4:687, 6-4:687, 6-4:705, 6-4:705, 6-4:723, 6-4:723,
                        6-4:732, 6-4:732, 6-4:750, 6-4:750, 6-4:768, 6-4:768, 6-4:786, 6-4:786, 6-4:804, 6-4:804,
                        6-4:822, 6-4:822, 6-4:831, 6-4:831, 6-4:840, 6-4:840, 6-4:846, 6-4:846, 6-4:855, 6-4:855,
                        6-4:864, 6-4:876, 6-4:876, 6-4:876, 6-4:885, 6-4:885, 6-4:894, 6-4:912, 6-4:912, 6-4:918,
                        6-4:927, 6-4:927, 6-4:927, 6-4:939, 6-4:939, 6-4:939

_FLOAT8         6-4:53  Class = typedef, Length = 8
                        Type = double
                        6-4:471, 6-4:474, 6-4:478, 6-4:481, 6-4:488, 6-4:491, 6-4:494, 6-4:497, 6-4:506, 6-4:531,
                        6-4:531, 6-4:549, 6-4:549, 6-4:558, 6-4:558, 6-4:567, 6-4:567, 6-4:588, 6-4:588, 6-4:606,
                        6-4:606, 6-4:606, 6-4:627, 6-4:627, 6-4:636, 6-4:636, 6-4:645, 6-4:645, 6-4:663, 6-4:663,
                        6-4:663, 6-4:672, 6-4:672, 6-4:690, 6-4:690, 6-4:708, 6-4:708, 6-4:726, 6-4:726, 6-4:735,
                        6-4:735, 6-4:753, 6-4:753, 6-4:771, 6-4:771, 6-4:789, 6-4:789, 6-4:807, 6-4:807, 6-4:825,
                        6-4:825, 6-4:834, 6-4:834, 6-4:843, 6-4:843, 6-4:849, 6-4:849, 6-4:858, 6-4:858, 6-4:867,
                        6-4:879, 6-4:879, 6-4:879, 6-4:888, 6-4:888, 6-4:897, 6-4:915, 6-4:915, 6-4:921, 6-4:930,
                        6-4:930, 6-4:930, 6-4:942, 6-4:942, 6-4:942

_Gtab                   Class = extern
                        Type = function returning pointer to pointer to void
                        5-1:156

_GETCFUNC       5-1:74  Class = typedef
                        Type = function returning int
                        5-1:81

_INT2           6-4:48  Class = typedef, Length = 2
                        Type = short
                        6-4:93, 6-4:349, 6-4:349, 6-4:349, 6-4:349, 6-4:349, 6-4:353, 6-4:353, 6-4:353, 6-4:353,
                        6-4:354
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* * * * * C R O S S R E F E R E N C E L I S T I N G * * * * *

IDENTIFIER	DEFINITION	ATTRIBUTES <SEQNBR>-<FILE NO>:<FILE LINE NO>
_INT4	6-4:50	Class = typedef, Length = 4 Type = long 6-4:328, 6-4:328, 6-4:334, 6-4:337, 6-4:340, 6-4:340, 6-4:340, 6-4:340, 6-4:343, 6-4:350, 6-4:354, 6-4:357, 6-4:360, 6-4:363, 6-4:366, 6-4:369, 6-4:393, 6-4:399, 6-4:402, 6-4:405, 6-4:408, 6-4:411, 6-4:414, 6-4:414, 6-4:420, 6-4:423, 6-4:426, 6-4:429, 6-4:435, 6-4:438, 6-4:438, 6-4:465, 6-4:468, 6-4:477, 6-4:477, 6-4:477, 6-4:477, 6-4:477, 6-4:477, 6-4:478, 6-4:481, 6-4:481, 6-4:481, 6-4:481, 6-4:482, 6-4:482, 6-4:482, 6-4:485, 6-4:485, 6-4:488, 6-4:491, 6-4:494, 6-4:494, 6-4:497, 6-4:500, 6-4:503, 6-4:506, 6-4:509, 6-4:509, 6-4:509, 6-4:582, 6-4:582, 6-4:582, 6-4:585, 6-4:588, 6-4:591, 6-4:594, 6-4:597, 6-4:600, 6-4:852, 6-4:852, 6-4:873, 6-4:873, 6-4:873, 6-4:918, 6-4:921, 6-4:924, 6-4:924, 6-4:924, 6-4:936, 6-4:936, 6-4:936, 6-4:966, 6-4:966, 6-4:966, 6-4:970, 6-4:974, 6-4:974, 6-4:974, 6-4:977, 6-4:977, 6-4:977, 6-4:978, 6-4:981, 6-4:984, 6-4:987, 6-4:987, 6-4:987, 6-4:990, 6-4:990, 6-4:990, 6-4:993, 6-4:993, 6-4:993, 6-4:996, 6-4:996, 6-4:996
_POINTER	6-4:55	Class = typedef, Length = 4 Type = pointer to void 6-4:105, 6-4:106, 6-4:328, 6-4:331, 6-4:337, 6-4:966, 6-4:967
_PUTCFUNC	5-1:75	Class = typedef Type = function returning int 5-1:82
_VSTRING	6-4:92	Class = struct tag 6-4:96
_VSTRING	6-4:96	Class = typedef, Length = 258 Type = struct _VSTRING 6-4:334, 6-4:357, 6-4:444, 6-4:465, 6-4:465, 6-4:468, 6-4:471, 6-4:471, 6-4:474
_VSTRING_LONG	6-4:98	Class = struct tag 6-4:102
_VSTRING_LONG	6-4:102	Class = typedef, Length = 4 Type = struct _VSTRING_LONG 6-4:970
abort		Class = extern Type = function returning void 7-5:443
abs		Class = extern Type = function returning int 7-5:492

```
 address             6-4:105         Type = pointer to void in struct _ENTRY at offset 0

 alignment_dummy     7-5:693         Type = double in union at offset 0

 atexit                              Class = extern
                                     Type = function returning int
                                     7-5:444

 atof                                Class = extern
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                                * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
                                     Type = function returning double
                                     7-5:233

 atoi                                Class = extern
                                     Type = function returning int
                                     7-5:234

 atol                                Class = extern
                                     Type = function returning long
                                     7-5:235

 bsearch                             Class = extern
                                     Type = function returning pointer to void
                                     7-5:449

 c                   7-6:108         Type = unsigned char in struct __stcke_tod at offset 0

 calloc                              Class = extern
                                     Type = function returning pointer to void
                                     7-5:339

 cds                                 Class = extern
                                     Type = function returning int
                                     7-5:749

 cds_t               7-5:694         Class = typedef, Length = 8
                                     Type = union with no tag
                                     7-5:748, 7-5:748, 7-5:748, 7-5:749, 7-5:749, 7-5:749

 cib_ab_term_exit    6-4:272         Type = arrayÝ8¨ of unsigned char in struct _CEECIB at offset 244

 cib_abcd            6-4:239         Type = int in struct _CEECIB at offset 180

 cib_abf             6-4:196         Type = unsigned int:1 in struct _CEECIB at offset 176(0)
```

```
 cib_abname          6-4:241         Type = arrayÝ8¨ of unsigned char in struct _CEECIB at offset 188

 cib_abrc            6-4:240         Type = int in struct _CEECIB at offset 184

 cib_alw_rsm         6-4:209         Type = unsigned int:1 in struct _CEECIB at offset 177(2)

 cib_arcv            6-4:207         Type = unsigned int:1 in struct _CEECIB at offset 177(0)

 cib_area1_rsvd      6-4:168         Type = arrayÝ40¨ of unsigned char in struct _CEECIB at offset 104

 cib_area5_rsvd      6-4:287         Type = arrayÝ4¨ of unsigned char in struct _CEECIB at offset 264

 cib_back            6-4:115         Type = pointer to struct _CEECIB in struct _CEECIB at offset 4

 cib_bbranch         6-4:229         Type = unsigned int:1 in struct _CEECIB at offset 179(1)

 cib_bbranch_Offset  6-4:166         Type = int in struct _CEECIB at offset 92
```


* * * * * C R O S S R E F E R E N C E L I S T I N G * * * * *

```
 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
 cib_bbranch_StmtId  6-4:167         Type = arrayÝ8¨ of unsigned char in struct _CEECIB at offset 96

 cib_bbranch_StmtLen 6-4:165         Type = short in struct _CEECIB at offset 90

 cib_cond            6-4:125         Type = struct _FEEDBACK in struct _CEECIB at offset 24

 cib_cond_default    6-4:154         Type = int in struct _CEECIB at offset 80

 cib_enable_only     6-4:211         Type = unsigned int:1 in struct _CEECIB at offset 177(4)

 cib_ext             6-4:204         Type = unsigned int:1 in struct _CEECIB at offset 176(7)

 cib_eye             6-4:114         Type = arrayÝ4¨ of unsigned char in struct _CEECIB at offset 0

 cib_fdbk            6-4:259         Type = int in struct _CEECIB at offset 216

 cib_flg_1           6-4:132         Type = unsigned int:8 in struct _CEECIB at offset 52(0)

 cib_flg_2           6-4:133         Type = unsigned int:8 in struct _CEECIB at offset 53(0)

 cib_flg_3           6-4:134         Type = unsigned int:8 in struct _CEECIB at offset 54(0)

 cib_flg_4_rsvd1     6-4:135         Type = unsigned int:1 in struct _CEECIB at offset 55(0)
```

```
 cib_flg_4_rsvd2     6-4:136         Type = unsigned int:1 in struct _CEECIB at offset 55(1)

 cib_flg_4_rsvd3     6-4:137         Type = unsigned int:1 in struct _CEECIB at offset 55(2)

 cib_flg_4_rsvd4     6-4:138         Type = unsigned int:1 in struct _CEECIB at offset 55(3)

 cib_flg_4_rsvd5     6-4:143         Type = unsigned int:1 in struct _CEECIB at offset 55(7)

 cib_flg_5_rsvd      6-4:199         Type = unsigned int:1 in struct _CEECIB at offset 176(3)

 cib_flg_7_rsvd1     6-4:218         Type = unsigned int:1 in struct _CEECIB at offset 178(1)

 cib_flg_7_rsvd2     6-4:219         Type = unsigned int:1 in struct _CEECIB at offset 178(2)

 cib_flg_7_rsvd3     6-4:220         Type = unsigned int:1 in struct _CEECIB at offset 178(3)

 cib_flg_7_rsvd4     6-4:221         Type = unsigned int:1 in struct _CEECIB at offset 178(4)

 cib_flg_7_rsvd5     6-4:222         Type = unsigned int:1 in struct _CEECIB at offset 178(5)

 cib_flg_7_rsvd6     6-4:223         Type = unsigned int:1 in struct _CEECIB at offset 178(6)

 cib_flg8_rsvd1      6-4:228         Type = unsigned int:1 in struct _CEECIB at offset 179(0)

 cib_flg8_rsvd2      6-4:230         Type = unsigned int:6 in struct _CEECIB at offset 179(2)

 cib_fun             6-4:261         Type = int in struct _CEECIB at offset 220

 cib_fwrd            6-4:116         Type = pointer to struct _CEECIB in struct _CEECIB at offset 8
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                                * * * * *  C R O S S   R E F E R E N C E   L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>

 cib_hdl_entry       6-4:147         Type = struct _ENTRY in struct _CEECIB at offset 60

 cib_hdl_sf          6-4:146         Type = pointer to void in struct _CEECIB at offset 56

 cib_hdl_sf_fmt      6-4:159         Type = unsigned char in struct _CEECIB at offset 88

 cib_int             6-4:253         Type = pointer to void in struct _CEECIB at offset 208

 cib_kill            6-4:198         Type = unsigned int:1 in struct _CEECIB at offset 176(2)

 cib_machine         6-4:127         Type = pointer to void in struct _CEECIB at offset 36

 cib_mathrest        6-4:188         Type = unsigned int:6 in struct _CEECIB at offset 172(2)
```

```
 cib_mcb             6-4:182         Type = pointer to struct CEEMCB in struct _CEECIB at offset 160

 cib_mdsf1b0         6-4:186         Type = unsigned int:1 in struct _CEECIB at offset 172(0)

 cib_mdsf1b1         6-4:187         Type = unsigned int:1 in struct _CEECIB at offset 172(1)

 cib_mid             6-4:265         Type = arrayÝ4¨ of unsigned char in struct _CEECIB at offset 228

 cib_mrc             6-4:208         Type = unsigned int:1 in struct _CEECIB at offset 177(1)

 cib_mrc_typ         6-4:210         Type = unsigned int:1 in struct _CEECIB at offset 177(3)

 cib_mrn             6-4:183         Type = arrayÝ8¨ of unsigned char in struct _CEECIB at offset 164

 cib_msg_out         6-4:140         Type = unsigned int:1 in struct _CEECIB at offset 55(5)

 cib_norec           6-4:224         Type = unsigned int:1 in struct _CEECIB at offset 178(7)

 cib_old_cond        6-4:129         Type = struct _FEEDBACK in struct _CEECIB at offset 40

 cib_owning_sf       6-4:212         Type = unsigned int:1 in struct _CEECIB at offset 177(5)

 cib_pcf             6-4:197         Type = unsigned int:1 in struct _CEECIB at offset 176(1)

 cib_ph_callee_sf    6-4:157         Type = pointer to void in struct _CEECIB at offset 84

 cib_ph_callee_sf_fmt
                     6-4:161         Type = unsigned char in struct _CEECIB at offset 89

 cib_pl              6-4:246         Type = pointer to void in struct _CEECIB at offset 196

 cib_ppav            6-4:269         Type = int in struct _CEECIB at offset 240

 cib_ppsd            6-4:281         Type = pointer to void in struct _CEECIB at offset 260

 cib_promo           6-4:201         Type = unsigned int:1 in struct _CEECIB at offset 176(5)

 cib_qdata           6-4:258         Type = pointer to struct QDATA in struct _CEECIB at offset 212
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                              * * * * *  C R O S S   R E F E R E N C E   L I S T I N G   * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>

 cib_rsm_machine     6-4:152         Type = pointer to void in struct _CEECIB at offset 76

 cib_rsm_mve         6-4:139         Type = unsigned int:1 in struct _CEECIB at offset 55(4)
```

```
cib_rsm_mvr         6-4:142         Type = unsigned int:1 in struct _CEECIB at offset 55(6)

cib_rsm_point       6-4:151         Type = pointer to void in struct _CEECIB at offset 72

cib_rsm_sf          6-4:150         Type = pointer to void in struct _CEECIB at offset 68

cib_rtcc            6-4:268         Type = int in struct _CEECIB at offset 236

cib_sdwa_ptr        6-4:275         Type = int in struct _CEECIB at offset 252

cib_sf0             6-4:213         Type = unsigned int:1 in struct _CEECIB at offset 177(6)

cib_sgl             6-4:203         Type = unsigned int:1 in struct _CEECIB at offset 176(6)

cib_signo           6-4:277         Type = int in struct _CEECIB at offset 256

cib_siz             6-4:117         Type = short in struct _CEECIB at offset 12

cib_state           6-4:266         Type = int in struct _CEECIB at offset 232

cib_stg             6-4:217         Type = unsigned int:1 in struct _CEECIB at offset 178(0)

cib_sv1             6-4:251         Type = pointer to void in struct _CEECIB at offset 204

cib_sv2             6-4:249         Type = pointer to void in struct _CEECIB at offset 200

cib_tc_done         6-4:214         Type = unsigned int:1 in struct _CEECIB at offset 177(7)

cib_tiu             6-4:200         Type = unsigned int:1 in struct _CEECIB at offset 176(4)

cib_toke            6-4:262         Type = arrayÝ4¨ of unsigned char in struct _CEECIB at offset 224

cib_ve              6-4:118         Type = short in struct _CEECIB at offset 14

cib_vma_rsvd        6-4:189         Type = unsigned int:24 in struct _CEECIB at offset 173(0)

cib_vrpsa           6-4:181         Type = pointer to void in struct _CEECIB at offset 156

cib_vsr             6-4:179         Type = arrayÝ8¨ of unsigned char in struct _CEECIB at offset 144

cib_vstor           6-4:180         Type = pointer to void in struct _CEECIB at offset 152

cib_Plat_id         6-4:119         Type = int in struct _CEECIB at offset 16

clearenv                            Class = extern
                                    Type = function returning int
                                    7-5:665
```

```
                          * * * * *  C R O S S   R E F E R E N C E   L I S T I N G   * * * * *

IDENTIFIER          DEFINITION      ATTRIBUTES
                                    <SEQNBR>-<FILE NO>:<FILE LINE NO>
clearerr                            Class = extern
                                    Type = function returning void
                                    5-1:406

clrmemf                             Class = extern
                                    Type = function returning int
                                    5-1:837

cs                                  Class = extern
                                    Type = function returning int
                                    7-5:711

cs_t                7-5:683         Class = typedef, Length = 4
                                    Type = unsigned int
                                    7-5:710, 7-5:710, 7-5:710, 7-5:711, 7-5:711, 7-5:711

csid                                Class = extern
                                    Type = function returning int
                                    7-5:669

div                                 Class = extern
                                    Type = function returning struct __div_t
                                    7-5:538

div_t               7-5:64          Class = typedef, Length = 8
                                    Type = struct __div_t
                                    7-5:538

double_word         7-5:692         Type = struct with no tag in union at offset 0

exit                                Class = extern
                                    Type = function returning void
                                    7-5:445

eyecatcher          19-0:19         Type = arrayÝ4¨ of unsigned char in struct tagGETSTCK_INPUT_PARMS at offset 0
                                    52-0:52

fc                  38-0:38         Class = auto, Length = 12
                                    Type = struct _FEEDBACK in function main
                                    61-0:61

fclose                              Class = extern
                                    Type = function returning int
                                    5-1:407
```

```
 fdelrec                          Class = extern
                                  Type = function returning int
                                  5-1:835

 feof                             Class = extern
                                  Type = function returning int
                                  5-1:408
```



```
                          * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION   ATTRIBUTES
                                  <SEQNBR>-<FILE NO>:<FILE LINE NO>
 ferror                           Class = extern
                                  Type = function returning int
                                  5-1:409

 fetch                            Class = extern
                                  Type = function returning pointer to function returning void
                                  7-5:604

 fetchep                          Class = extern
                                  Type = function returning pointer to function returning void
                                  7-5:605

 fflush                           Class = extern
                                  Type = function returning int
                                  5-1:410

 fgetc                            Class = extern
                                  Type = function returning int
                                  5-1:411

 fgetpos                          Class = extern
                                  Type = function returning int
                                  5-1:412

 fgets                            Class = extern
                                  Type = function returning pointer to unsigned char
                                  5-1:413

 first_word          7-5:690      Type = unsigned int in struct at offset 0

 fldata                           Class = extern
                                  Type = function returning int
                                  5-1:838
```

```
 fldata_t            5-1:750         Class = typedef, Length = 36
                                     Type = struct __fileData
                                     5-1:838

 flocate                             Class = extern
                                     Type = function returning int
                                     5-1:834

 fopen                               Class = extern
                                     Type = function returning pointer to struct __ffile
                                     5-1:414

 fpos_t              5-1:107         Class = typedef, Length = 32
                                     Type = struct __fpos_t
                                     5-1:412, 5-1:427

 fprintf                             Class = extern
                                     Type = function returning int
                                     5-1:416
```



```
                              * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>

 fputc                               Class = extern
                                     Type = function returning int
                                     5-1:418

 fputs                               Class = extern
                                     Type = function returning int
                                     5-1:419

 fread                               Class = extern
                                     Type = function returning unsigned int
                                     5-1:420

 free                                Class = extern
                                     Type = function returning void
                                     7-5:340

 freopen                             Class = extern
                                     Type = function returning pointer to struct __ffile
                                     5-1:422

 fscanf                              Class = extern
                                     Type = function returning int
                                     5-1:424
```

```
 fseek                              Class = extern
                                    Type = function returning int
                                    5-1:426

 fsetpos                            Class = extern
                                    Type = function returning int
                                    5-1:427

 ftell                              Class = extern
                                    Type = function returning long
                                    5-1:428

 function           21-0:21         Type = long in struct tagGETSTCK_INPUT_PARMS at offset 8
                                    54-0:54

 fupdate                            Class = extern
                                    Type = function returning unsigned int
                                    5-1:836

 fwrite                             Class = extern
                                    Type = function returning unsigned int
                                    5-1:429

 getc                               Class = extern
                                    Type = function returning int
                                    5-1:431

 getchar                            Class = extern
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                                * * * * *  C R O S S   R E F E R E N C E   L I S T I N G  * * * * *

 IDENTIFIER         DEFINITION      ATTRIBUTES
                                    <SEQNBR>-<FILE NO>:<FILE LINE NO>
                                    Type = function returning int
                                    5-1:432

 getenv                             Class = extern
                                    Type = function returning pointer to unsigned char
                                    7-5:446

 gets                               Class = extern
                                    Type = function returning pointer to unsigned char
                                    5-1:433

 hreport_t          7-5:90          Class = typedef, Length = 12
                                    Type = struct with no tag
                                    7-5:475
```

```
i                   7-6:115         Type = unsigned int in struct __stcke_tod at offset 9

imaginary           6-4:71          Type = double in struct _COMPLEX8 at offset 8

imaginary           6-4:65          Type = float in struct _COMPLEX4 at offset 4

imaginary           6-4:77          Type = long double in struct _COMPLEX16 at offset 16

labs                                Class = extern
                                    Type = function returning long
                                    7-5:539

ldiv                                Class = extern
                                    Type = function returning struct __ldiv_t
                                    7-5:540

ldiv_t              7-5:74          Class = typedef, Length = 8
                                    Type = struct __ldiv_t
                                    7-5:540

length              6-4:93          Type = short in struct _VSTRING at offset 0

length              6-4:99          Type = unsigned short in struct _VSTRING_LONG at offset 0

len1                7-6:945         Class = parameter, Length = 1
                                    Type = unsigned char

len2                7-6:946         Class = parameter, Length = 1
                                    Type = unsigned char

llabs                               Class = extern
                                    Type = function returning long long
                                    7-5:565

lldiv                               Class = extern
                                    Type = function returning struct with no tag
                                    7-5:566
```


* * * * * C R O S S R E F E R E N C E L I S T I N G * * * * *

```
IDENTIFIER          DEFINITION      ATTRIBUTES
                                    <SEQNBR>-<FILE NO>:<FILE LINE NO>
lldiv_t             7-5:80          Class = typedef, Length = 16
                                    Type = struct with no tag
                                    7-5:566
```

```
lock                7-6:1746        Class = parameter, Length = 4
                                    Type = pointer to void

lock                7-6:1749        Class = parameter, Length = 4
                                    Type = pointer to void

lock                7-6:1754        Class = parameter, Length = 4
                                    Type = pointer to void

lock                7-6:1758        Class = parameter, Length = 4
                                    Type = pointer to void

lock                7-6:1761        Class = parameter, Length = 4
                                    Type = pointer to void

lock                7-6:1743        Class = parameter, Length = 4
                                    Type = pointer to void

main                32-0:32         Class = extern
                                    Type = function returning int

malloc                              Class = extern
                                    Type = function returning pointer to void
                                    7-5:341

mblen                               Class = extern
                                    Type = function returning int
                                    7-5:541

mbstowcs                            Class = extern
                                    Type = function returning unsigned int
                                    7-5:545

mbtowc                              Class = extern
                                    Type = function returning int
                                    7-5:542

mcb_filler          6-4:305         Type = arrayÝ444¨ of unsigned char in struct CEEMCB at offset 0

mcb_qdata           6-4:306         Type = struct QDATA in struct CEEMCB at offset 444

memchr                              Class = extern
                                    Type = function returning pointer to void
                                    8-8:198

memcmp                              Class = extern
                                    Type = function returning int
                                    8-8:201
```

```
                          * * * * *  C R O S S   R E F E R E N C E   L I S T I N G   * * * * *

IDENTIFIER          DEFINITION      ATTRIBUTES
                                    <SEQNBR>-<FILE NO>:<FILE LINE NO>
memcpy                              Class = extern
                                    Type = function returning pointer to void
                                    8-8:199

memmove                             Class = extern
                                    Type = function returning pointer to void
                                    8-8:292

memset                              Class = extern
                                    Type = function returning pointer to void
                                    8-8:202

nesting             6-4:106         Type = pointer to void in struct _ENTRY at offset 4

options             37-0:37         Class = auto, Length = 255
                                    Type = arrayÝ255¨ of unsigned char in function main
                                    44-0:44, 45-0:45, 61-0:61

op1                 7-6:945         Class = parameter, Length = 4
                                    Type = pointer to unsigned char

op1                 7-6:962         Class = parameter, Length = 4
                                    Type = pointer to unsigned char

op1                 7-6:964         Class = parameter, Length = 4
                                    Type = pointer to unsigned char

op1                 7-6:980         Class = parameter, Length = 4
                                    Type = pointer to unsigned char

op1                 7-6:995         Class = parameter, Length = 8
                                    Type = long long

op1                 7-6:944         Class = parameter, Length = 4
                                    Type = int

op1_len             7-6:964         Class = parameter, Length = 4
                                    Type = unsigned long

op1_len             7-6:980         Class = parameter, Length = 4
                                    Type = unsigned long

op1_len             7-6:962         Class = parameter, Length = 4
                                    Type = unsigned long
```

```
 op1c                7-6:1747        Class = parameter, Length = 4
                                     Type = pointer to unsigned int

 op1c                7-6:1750        Class = parameter, Length = 4
                                     Type = pointer to unsigned int

 op1c                7-6:1755        Class = parameter, Length = 4
                                     Type = pointer to unsigned int
```


```
                              * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>

 op1c                7-6:1759        Class = parameter, Length = 4
                                     Type = pointer to unsigned int

 op1c                7-6:1762        Class = parameter, Length = 4
                                     Type = pointer to unsigned int

 op1c                7-6:1744        Class = parameter, Length = 4
                                     Type = pointer to unsigned int

 op1r                7-6:1750        Class = parameter, Length = 4
                                     Type = unsigned int

 op1r                7-6:1755        Class = parameter, Length = 4
                                     Type = unsigned int

 op1r                7-6:1759        Class = parameter, Length = 4
                                     Type = unsigned int

 op1r                7-6:1762        Class = parameter, Length = 4
                                     Type = unsigned int

 op1r                7-6:1747        Class = parameter, Length = 4
                                     Type = unsigned int

 op2                 7-6:944         Class = parameter, Length = 4
                                     Type = pointer to unsigned char

 op2                 7-6:946         Class = parameter, Length = 4
                                     Type = pointer to unsigned char

 op2                 7-6:962         Class = parameter, Length = 1
                                     Type = unsigned char
```

```
 op2                7-6:964         Class = parameter, Length = 1
                                    Type = unsigned char

 op2                7-6:981         Class = parameter, Length = 4
                                    Type = pointer to unsigned char

 op2                7-6:994         Class = parameter, Length = 4
                                    Type = pointer to unsigned char

 op2                7-6:995         Class = parameter, Length = 4
                                    Type = pointer to unsigned char

 op2                7-6:1744        Class = parameter, Length = 4
                                    Type = pointer to unsigned int

 op2                7-6:1748        Class = parameter, Length = 4
                                    Type = pointer to unsigned int

 op2                7-6:1751        Class = parameter, Length = 4
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                                * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER         DEFINITION      ATTRIBUTES
                                    <SEQNBR>-<FILE NO>:<FILE LINE NO>
                                    Type = pointer to unsigned int

 op2                7-6:1756        Class = parameter, Length = 4
                                    Type = pointer to unsigned int

 op2                7-6:1760        Class = parameter, Length = 4
                                    Type = pointer to unsigned int

 op2                7-6:1763        Class = parameter, Length = 4
                                    Type = pointer to unsigned int

 op2                7-6:943         Class = parameter, Length = 4
                                    Type = pointer to unsigned char

 op3                7-6:965         Class = parameter, Length = 4
                                    Type = pointer to unsigned char

 op3                7-6:1745        Class = parameter, Length = 4
                                    Type = pointer to unsigned int

 op3                7-6:1757        Class = parameter, Length = 4
                                    Type = unsigned int

 op3                7-6:963         Class = parameter, Length = 4
```

```
                                  Type = pointer to unsigned char

 op3_len             7-6:965      Class = parameter, Length = 4
                                  Type = unsigned long

 op3_len             7-6:963      Class = parameter, Length = 4
                                  Type = unsigned long

 op3c                7-6:1752     Class = parameter, Length = 4
                                  Type = pointer to unsigned int

 op3r                7-6:1752     Class = parameter, Length = 4
                                  Type = unsigned int

 op4                 7-6:1753     Class = parameter, Length = 4
                                  Type = pointer to unsigned int

 op4                 7-6:1757     Class = parameter, Length = 4
                                  Type = pointer to unsigned int

 op4                 7-6:1745     Class = parameter, Length = 4
                                  Type = pointer to unsigned int

 p_field             7-6:121      Type = unsigned short in struct __stcke_tag at offset 14

 param_list          7-6:1763     Class = parameter, Length = 4
                                  Type = pointer to void

 param_list          7-6:1760     Class = parameter, Length = 4
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                               * * * * *  C R O S S   R E F E R E N C E   L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION   ATTRIBUTES
                                  <SEQNBR>-<FILE NO>:<FILE LINE NO>
                                  Type = pointer to void

 parms               40-0:40      Class = auto, Length = 24
                                  Type = struct tagGETSTCK_INPUT_PARMS in function main
                                  52-0:52, 53-0:53, 54-0:54, 57-0:57, 60-0:60, 63-0:63, 64-0:64, 65-0:65

 perror                           Class = extern
                                  Type = function returning void
                                  5-1:434

 printf                           Class = extern
                                  Type = function returning int
                                  5-1:435, 48-0:48, 60-0:60, 62-0:62, 69-0:69
```

```
 ptrdiff_t           7-7:39          Class = typedef, Length = 4
                                     Type = int

 putc                                Class = extern
                                     Type = function returning int
                                     5-1:436

 putchar                             Class = extern
                                     Type = function returning int
                                     5-1:437

 puts                                Class = extern
                                     Type = function returning int
                                     5-1:438

 qdata_arg1          6-4:297         Type = pointer to void in struct QDATA at offset 20

 qdata_arg1desc      6-4:296         Type = pointer to void in struct QDATA at offset 16

 qdata_arg2          6-4:299         Type = pointer to void in struct QDATA at offset 28

 qdata_arg2desc      6-4:298         Type = pointer to void in struct QDATA at offset 24

 qdata_parmcnt       6-4:292         Type = pointer to int in struct QDATA at offset 0

 qdata_resdesc       6-4:294         Type = pointer to void in struct QDATA at offset 8

 qdata_result        6-4:295         Type = pointer to void in struct QDATA at offset 12

 qdata_resume        6-4:301         Type = pointer to void in struct QDATA at offset 36

 qdata_resumedesc    6-4:300         Type = pointer to void in struct QDATA at offset 32

 qdata_rtnname       6-4:293         Type = pointer to unsigned char in struct QDATA at offset 4

 qsort                               Class = extern
                                     Type = function returning void
                                     7-5:453

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                              * * * * *  C R O S S   R E F E R E N C E   L I S T I N G   * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
 quot                7-5:72          Type = long in struct __ldiv_t at offset 0

 quot                7-5:62          Type = int in struct __div_t at offset 0
```

```
quot                7-5:78          Type = long long in struct at offset 0

rand                                Class = extern
                                    Type = function returning int
                                    7-5:241

rc                  41-0:41         Class = auto, Length = 4
                                    Type = int in function main
                                    41-0:41, 57-0:57, 69-0:69, 70-0:70

real                6-4:70          Type = double in struct _COMPLEX8 at offset 0

real                6-4:64          Type = float in struct _COMPLEX4 at offset 0

real                6-4:76          Type = long double in struct _COMPLEX16 at offset 0

realloc                             Class = extern
                                    Type = function returning pointer to void
                                    7-5:342

release                             Class = extern
                                    Type = function returning int
                                    7-5:606

rem                 7-5:73          Type = long in struct __ldiv_t at offset 4

rem                 7-5:63          Type = int in struct __div_t at offset 4

rem                 7-5:79          Type = long long in struct at offset 8

remove                              Class = extern
                                    Type = function returning int
                                    5-1:439

rename                              Class = extern
                                    Type = function returning int
                                    5-1:440

returnValue         22-0:22         Type = arrayÝ3¨ of long in struct tagGETSTCK_INPUT_PARMS at offset 12
                                    63-0:63, 64-0:64, 65-0:65

rewind                              Class = extern
                                    Type = function returning void
                                    5-1:441

rpmatch                             Class = extern
                                    Type = function returning int
                                    7-5:668
```

* * * * * C R O S S R E F E R E N C E L I S T I N G * * * * *

IDENTIFIER	DEFINITION	ATTRIBUTES <SEQNBR>-<FILE NO>:<FILE LINE NO>
rsvd	6-4:120	Type = int in struct _CEECIB at offset 20
scanf		Class = extern Type = function returning int 5-1:442
second_word	7-5:691	Type = unsigned int in struct at offset 4
setbuf		Class = extern Type = function returning void 5-1:443
setenv		Class = extern Type = function returning int 7-5:1227
setvbuf		Class = extern Type = function returning int 5-1:444
size_t	5-1:58	Class = typedef, Length = 4 Type = unsigned int 5-1:420, 5-1:420, 5-1:421, 5-1:429, 5-1:429, 5-1:429, 5-1:445, 5-1:834, 5-1:836, 5-1:836, 5-1:1725, 7-5:339, 7-5:339, 7-5:341, 7-5:342, 7-5:450, 7-5:450, 7-5:453, 7-5:453, 7-5:541, 7-5:543, 7-5:545, 7-5:546, 7-5:547, 7-5:548, 7-5:1120, 8-8:108, 8-8:109, 8-8:110, 8-8:111, 8-8:114, 8-8:124, 8-8:125, 8-8:126, 8-8:198, 8-8:200, 8-8:201, 8-8:202, 8-8:209, 8-8:212, 8-8:214, 8-8:215, 8-8:292, 8-8:294, 8-8:318, 8-8:321, 8-8:322
slice	7-6:110	Type = unsigned long long in struct __stcke_tod at offset 1
sprintf		Class = extern Type = function returning int 5-1:447
srand		Class = extern Type = function returning void 7-5:242
sscanf		Class = extern Type = function returning int 5-1:450
ssize_t	5-1:67	Class = typedef, Length = 4 Type = int

```
 strcat                          Class = extern
                                 Type = function returning pointer to unsigned char
                                 8-8:203

 strchr                          Class = extern
                                 Type = function returning pointer to unsigned char
                                 8-8:205
```



```
                          * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
 strcmp                              Class = extern
                                     Type = function returning int
                                     8-8:206

 strcoll                             Class = extern
                                     Type = function returning int
                                     8-8:293

 strcpy                              Class = extern
                                     Type = function returning pointer to unsigned char
                                     8-8:207

 strcspn                             Class = extern
                                     Type = function returning unsigned int
                                     8-8:294

 strerror                            Class = extern
                                     Type = function returning pointer to unsigned char
                                     8-8:295

 string              6-4:94          Type = arrayÝ255¨ of unsigned char in struct _VSTRING at offset 2

 string              6-4:100         Type = arrayÝ1¨ of unsigned char in struct _VSTRING_LONG at offset 2

 strlen                              Class = extern
                                     Type = function returning unsigned int
                                     8-8:209

 strncat                             Class = extern
                                     Type = function returning pointer to unsigned char
                                     8-8:213

 strncmp                             Class = extern
                                     Type = function returning int
```

```
                                8-8:215

 strncpy                        Class = extern
                                Type = function returning pointer to unsigned char
                                8-8:211

 strpbrk                        Class = extern
                                Type = function returning pointer to unsigned char
                                8-8:315

 strrchr                        Class = extern
                                Type = function returning pointer to unsigned char
                                8-8:210

 strspn                         Class = extern
                                Type = function returning unsigned int
                                8-8:318

 strstr                         Class = extern
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                             * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
                                     Type = function returning pointer to unsigned char
                                     8-8:316

 strtod                              Class = extern
                                     Type = function returning double
                                     7-5:236

 strtok                              Class = extern
                                     Type = function returning pointer to unsigned char
                                     8-8:320

 strtol                              Class = extern
                                     Type = function returning long
                                     7-5:237

 strtoll                             Class = extern
                                     Type = function returning long long
                                     7-5:197, 7-5:245

 strtoul                             Class = extern
                                     Type = function returning unsigned long
                                     7-5:239

 strtoull                            Class = extern
```

```
                                Type = function returning unsigned long long
                                7-5:199, 7-5:247

 strxfrm                        Class = extern
                                Type = function returning unsigned int
                                8-8:321

 svc99                          Class = extern
                                Type = function returning int
                                5-1:833

 system                         Class = extern
                                Type = function returning int
                                7-5:448

 tagGETSTCK_INPUT_PARMS
                     17-0:17    Class = struct tag

 test_char           7-6:981    Class = parameter, Length = 1
                                Type = unsigned char

 title               36-0:36    Class = auto, Length = 80
                                Type = arrayÝ80¨ of unsigned char in function main
                                61-0:61

 tmpfile                        Class = extern
                                Type = function returning pointer to struct __ffile
                                5-1:452
```



```
                             * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION     ATTRIBUTES
                                    <SEQNBR>-<FILE NO>:<FILE LINE NO>
 tmpnam                             Class = extern
                                    Type = function returning pointer to unsigned char
                                    5-1:453

 tod                 7-6:120        Type = packed struct __stcke_tod in struct __stcke_tag at offset 1

 tok_case            6-4:84         Type = unsigned int:2 in struct _FEEDBACK at offset 4(0)

 tok_ctrl            6-4:86         Type = unsigned int:3 in struct _FEEDBACK at offset 4(5)

 tok_facid           6-4:87         Type = arrayÝ3¨ of unsigned char in struct _FEEDBACK at offset 5

 tok_isi             6-4:88         Type = int in struct _FEEDBACK at offset 8
```

```
tok_msgno           6-4:83          Type = short in struct _FEEDBACK at offset 2

tok_sev             6-4:82          Type = short in struct _FEEDBACK at offset 0

tok_sever           6-4:85          Type = unsigned int:3 in struct _FEEDBACK at offset 4(2)

unatexit                            Class = extern
                                    Type = function returning int
                                    7-5:459

ungetc                              Class = extern
                                    Type = function returning int
                                    5-1:454

va_list             5-1:145         Class = typedef, Length = 8
                                    Type = arrayÝ2¨ of pointer to unsigned char

version             20-0:20         Type = long in struct tagGETSTCK_INPUT_PARMS at offset 4
                                    53-0:53

vfprintf                            Class = extern
                                    Type = function returning int
                                    5-1:455

vprintf                             Class = extern
                                    Type = function returning int
                                    5-1:457

vsprintf                            Class = extern
                                    Type = function returning int
                                    5-1:458

wchar_t             7-7:58          Class = typedef, Length = 2
                                    Type = unsigned short
                                    7-5:542, 7-5:544, 7-5:545, 7-5:548, 7-5:670

wcsid                               Class = extern
                                    Type = function returning int
                                    7-5:670
```


* * * * * C R O S S R E F E R E N C E L I S T I N G * * * * *

```
IDENTIFIER          DEFINITION      ATTRIBUTES
                                    <SEQNBR>-<FILE NO>:<FILE LINE NO>

wcstombs                            Class = extern
                                    Type = function returning unsigned int
                                    7-5:547
```

```
wctomb                          Class = extern
                                Type = function returning int
                                7-5:544

x                 7-5:851       Class = parameter, Length = 4
                                Type = unsigned int

zeros             7-6:119       Type = unsigned char in struct __stcke_tag at offset 0

CEECMI                          Class = extern
                                Type = function returning void
                                6-4:334

CEECRHP                         Class = extern
                                Type = function returning void
                                6-4:340

CEECZST                         Class = extern
                                Type = function returning void
                                6-4:337

CEEDATE                         Class = extern
                                Type = function returning void
                                6-4:468

CEEDATM                         Class = extern
                                Type = function returning void
                                6-4:474

CEEDAYS                         Class = extern
                                Type = function returning void
                                6-4:465

CEEDCOD                         Class = extern
                                Type = function returning void
                                6-4:353

CEEDLYM                         Class = extern
                                Type = function returning void
                                6-4:984

CEEDSHP                         Class = extern
                                Type = function returning void
                                6-4:343

CEEDYWK                         Class = extern
                                Type = function returning void
                                6-4:485
```

* * * * * C R O S S R E F E R E N C E L I S T I N G * * * * *

IDENTIFIER	DEFINITION	ATTRIBUTES <SEQNBR>-<FILE NO>:<FILE LINE NO>
CEEENV		Class = extern Type = function returning void 6-4:966
CEEFMDA		Class = extern Type = function returning void 6-4:384
CEEFMDT		Class = extern Type = function returning void 6-4:390
CEEFMTM		Class = extern Type = function returning void 6-4:387
CEEFRST		Class = extern Type = function returning void 6-4:331
CEEGMT		Class = extern Type = function returning void 6-4:491
CEEGMTO		Class = extern Type = function returning void 6-4:494
CEEGPID		Class = extern Type = function returning void 6-4:414
CEEGQDT		Class = extern Type = function returning void 6-4:411
CEEGTST		Class = extern Type = function returning void 6-4:328
CEEHDLR		Class = extern Type = function returning void 6-4:393

```
 CEEHDLU                          Class = extern
                                  Type = function returning void
                                  6-4:396

 CEEISEC                          Class = extern
                                  Type = function returning void
                                  6-4:477
```



```
                          * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
 CEEITOK                          Class = extern
                                  Type = function returning void
                                  6-4:417

 CEELOCT                          Class = extern
                                  Type = function returning void
                                  6-4:497

 CEEMCB              6-4:182      Class = struct tag

 CEEMGET                          Class = extern
                                  Type = function returning void
                                  6-4:363

 CEEMOUT                          Class = extern
                                  Type = function returning void
                                  6-4:357

 CEEMRCE                          Class = extern
                                  Type = function returning void
                                  6-4:399

 CEEMRCR                          Class = extern
                                  Type = function returning void
                                  6-4:402

 CEEMSG                           Class = extern
                                  Type = function returning void
                                  6-4:360

 CEENCOD                          Class = extern
                                  Type = function returning void
                                  6-4:349
```

```
 CEEQCEN                         Class = extern
                                 Type = function returning void
                                 6-4:503

 CEERAN0                         Class = extern
                                 Type = function returning void
                                 6-4:506

 CEESCEN                         Class = extern
                                 Type = function returning void
                                 6-4:500

 CEESDABS                        Class = extern
                                 Type = function returning void
                                 6-4:858

 CEESDACS                        Class = extern
                                 Type = function returning void
                                 6-4:636
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                              * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>

 CEESDASN                        Class = extern
                                 Type = function returning void
                                 6-4:627

 CEESDATH                        Class = extern
                                 Type = function returning void
                                 6-4:789

 CEESDATN                        Class = extern
                                 Type = function returning void
                                 6-4:645

 CEESDAT2                        Class = extern
                                 Type = function returning void
                                 6-4:663

 CEESDCOS                        Class = extern
                                 Type = function returning void
                                 6-4:690

 CEESDCSH                        Class = extern
                                 Type = function returning void
                                 6-4:753
```

```
 CEESDCTN                        Class = extern
                                 Type = function returning void
                                 6-4:726

 CEESDDIM                        Class = extern
                                 Type = function returning void
                                 6-4:930

 CEESDERC                        Class = extern
                                 Type = function returning void
                                 6-4:834

 CEESDERF                        Class = extern
                                 Type = function returning void
                                 6-4:825

 CEESDEXP                        Class = extern
                                 Type = function returning void
                                 6-4:567

 CEESDGMA                        Class = extern
                                 Type = function returning void
                                 6-4:843

 CEESDINT                        Class = extern
                                 Type = function returning void
                                 6-4:888
```



```
                          * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
 CEESDLGM                        Class = extern
                                 Type = function returning void
                                 6-4:849

 CEESDLG1                        Class = extern
                                 Type = function returning void
                                 6-4:549

 CEESDLG2                        Class = extern
                                 Type = function returning void
                                 6-4:558

 CEESDLOG                        Class = extern
                                 Type = function returning void
```

```
                                6-4:531

 CEESDMOD                       Class = extern
                                Type = function returning void
                                6-4:879

 CEESDNIN                       Class = extern
                                Type = function returning void
                                6-4:921

 CEESDNWN                       Class = extern
                                Type = function returning void
                                6-4:915

 CEESDSGN                       Class = extern
                                Type = function returning void
                                6-4:942

 CEESDSIN                       Class = extern
                                Type = function returning void
                                6-4:672

 CEESDSNH                       Class = extern
                                Type = function returning void
                                6-4:735

 CEESDSQT                       Class = extern
                                Type = function returning void
                                6-4:807

 CEESDTAN                       Class = extern
                                Type = function returning void
                                6-4:708

 CEESDTNH                       Class = extern
                                Type = function returning void
                                6-4:771

 CEESDXPD                       Class = extern
15694A01 V1.13 z/OS XL C             'SMORSA.BOSTON.ASM.SOURCE(CLOCKC)'          08/10/2013 20:09:41   Page    46


                           * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
                                     Type = function returning void
                                     6-4:606

 CEESDXPI                            Class = extern
```

```
                                Type = function returning void
                                6-4:588

 CEESEABS                       Class = extern
                                Type = function returning void
                                6-4:867

 CEESEATH                       Class = extern
                                Type = function returning void
                                6-4:798

 CEESEATN                       Class = extern
                                Type = function returning void
                                6-4:654

 CEESECI                        Class = extern
                                Type = function returning void
                                6-4:481

 CEESECJG                       Class = extern
                                Type = function returning void
                                6-4:906

 CEESECOS                       Class = extern
                                Type = function returning void
                                6-4:699

 CEESECS                        Class = extern
                                Type = function returning void
                                6-4:471

 CEESECSH                       Class = extern
                                Type = function returning void
                                6-4:762

 CEESEDVD                       Class = extern
                                Type = function returning void
                                6-4:960

 CEESEEXP                       Class = extern
                                Type = function returning void
                                6-4:576

 CEESEIMG                       Class = extern
                                Type = function returning void
                                6-4:897

 CEESELOG                       Class = extern
                                Type = function returning void
15694A01 V1.13 z/OS XL C              'SMORSA.BOSTON.ASM.SOURCE(CLOCKC)'                08/10/2013 20:09:41   Page    47
```

* * * * * C R O S S R E F E R E N C E L I S T I N G * * * * *

IDENTIFIER	DEFINITION	ATTRIBUTES <SEQNBR>-<FILE NO>:<FILE LINE NO>
		6-4:540
CEESEMLT		Class = extern Type = function returning void 6-4:951
CEESESIN		Class = extern Type = function returning void 6-4:681
CEESESNH		Class = extern Type = function returning void 6-4:744
CEESESQT		Class = extern Type = function returning void 6-4:816
CEESETAN		Class = extern Type = function returning void 6-4:717
CEESETNH		Class = extern Type = function returning void 6-4:780
CEESEXPE		Class = extern Type = function returning void 6-4:618
CEESEXPI		Class = extern Type = function returning void 6-4:597
CEESGL		Class = extern Type = function returning void 6-4:405
CEESIABS		Class = extern Type = function returning void 6-4:852
CEESICLR		Class = extern Type = function returning void

```
                                6-4:987

 CEESIDIM                       Class = extern
                                Type = function returning void
                                6-4:924

 CEESIMOD                       Class = extern
                                Type = function returning void
                                6-4:873
15694A01 V1.13 z/OS XL C             'SMORSA.BOSTON.ASM.SOURCE(CLOCKC)'          08/10/2013 20:09:41   Page    48

                             * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>

 CEESISET                           Class = extern
                                    Type = function returning void
                                    6-4:990

 CEESISGN                           Class = extern
                                    Type = function returning void
                                    6-4:936

 CEESISHF                           Class = extern
                                    Type = function returning void
                                    6-4:993

 CEESITST                           Class = extern
                                    Type = function returning void
                                    6-4:996

 CEESIXPI                           Class = extern
                                    Type = function returning void
                                    6-4:582

 CEESQABS                           Class = extern
                                    Type = function returning void
                                    6-4:861

 CEESQACS                           Class = extern
                                    Type = function returning void
                                    6-4:639

 CEESQASN                           Class = extern
                                    Type = function returning void
                                    6-4:630

 CEESQATH                           Class = extern
```

```
                                Type = function returning void
                                6-4:792

 CEESQATN                       Class = extern
                                Type = function returning void
                                6-4:648

 CEESQAT2                       Class = extern
                                Type = function returning void
                                6-4:666

 CEESQCOS                       Class = extern
                                Type = function returning void
                                6-4:693

 CEESQCSH                       Class = extern
                                Type = function returning void
                                6-4:756
```



```
                            * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
 CEESQCTN                           Class = extern
                                    Type = function returning void
                                    6-4:729

 CEESQDIM                           Class = extern
                                    Type = function returning void
                                    6-4:933

 CEESQERC                           Class = extern
                                    Type = function returning void
                                    6-4:837

 CEESQERF                           Class = extern
                                    Type = function returning void
                                    6-4:828

 CEESQEXP                           Class = extern
                                    Type = function returning void
                                    6-4:570

 CEESQINT                           Class = extern
                                    Type = function returning void
                                    6-4:891
```

```
 CEESQLG1                        Class = extern
                                 Type = function returning void
                                 6-4:552

 CEESQLG2                        Class = extern
                                 Type = function returning void
                                 6-4:561

 CEESQLOG                        Class = extern
                                 Type = function returning void
                                 6-4:534

 CEESQMOD                        Class = extern
                                 Type = function returning void
                                 6-4:882

 CEESQSGN                        Class = extern
                                 Type = function returning void
                                 6-4:945

 CEESQSIN                        Class = extern
                                 Type = function returning void
                                 6-4:675

 CEESQSNH                        Class = extern
                                 Type = function returning void
                                 6-4:738

 CEESQSQT                        Class = extern
15694A01 V1.13 z/OS XL C              'SMORSA.BOSTON.ASM.SOURCE(CLOCKC)'                    08/10/2013 20:09:41   Page    50


                              * * * * *  C R O S S   R E F E R E N C E   L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
                                     Type = function returning void
                                     6-4:810

 CEESQTAN                        Class = extern
                                 Type = function returning void
                                 6-4:711

 CEESQTNH                        Class = extern
                                 Type = function returning void
                                 6-4:774

 CEESQXPI                        Class = extern
                                 Type = function returning void
                                 6-4:591
```

```
 CEESQXPQ                        Class = extern
                                 Type = function returning void
                                 6-4:609

 CEESQXP2                        Class = extern
                                 Type = function returning void
                                 6-4:612

 CEESRABS                        Class = extern
                                 Type = function returning void
                                 6-4:870

 CEESRATH                        Class = extern
                                 Type = function returning void
                                 6-4:801

 CEESRATN                        Class = extern
                                 Type = function returning void
                                 6-4:657

 CEESRCJG                        Class = extern
                                 Type = function returning void
                                 6-4:909

 CEESRCOS                        Class = extern
                                 Type = function returning void
                                 6-4:702

 CEESRCSH                        Class = extern
                                 Type = function returning void
                                 6-4:765

 CEESRDVD                        Class = extern
                                 Type = function returning void
                                 6-4:963

 CEESREXP                        Class = extern
                                 Type = function returning void
15694A01 V1.13 z/OS XL C              'SMORSA.BOSTON.ASM.SOURCE(CLOCKC)'                  08/10/2013 20:09:41   Page    51


                              * * * * *  C R O S S   R E F E R E N C E   L I S T I N G   * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
                                     6-4:579

 CEESRIMG                        Class = extern
                                 Type = function returning void
```

```
                                6-4:900

CEESRLOG                        Class = extern
                                Type = function returning void
                                6-4:543

CEESRMLT                        Class = extern
                                Type = function returning void
                                6-4:954

CEESRSIN                        Class = extern
                                Type = function returning void
                                6-4:684

CEESRSNH                        Class = extern
                                Type = function returning void
                                6-4:747

CEESRSQT                        Class = extern
                                Type = function returning void
                                6-4:819

CEESRTAN                        Class = extern
                                Type = function returning void
                                6-4:720

CEESRTNH                        Class = extern
                                Type = function returning void
                                6-4:783

CEESRXPI                        Class = extern
                                Type = function returning void
                                6-4:600

CEESRXPR                        Class = extern
                                Type = function returning void
                                6-4:621

CEESSABS                        Class = extern
                                Type = function returning void
                                6-4:855

CEESSACS                        Class = extern
                                Type = function returning void
                                6-4:633

CEESSASN                        Class = extern
                                Type = function returning void
                                6-4:624
15694A01 V1.13 z/OS XL C             'SMORSA.BOSTON.ASM.SOURCE(CLOCKC)'                 08/10/2013 20:09:41   Page    52
```

* * * * * C R O S S R E F E R E N C E L I S T I N G * * * * *

IDENTIFIER	DEFINITION	ATTRIBUTES <SEQNBR>-<FILE NO>:<FILE LINE NO>
CEESSATH		Class = extern Type = function returning void 6-4:786
CEESSATN		Class = extern Type = function returning void 6-4:642
CEESSAT2		Class = extern Type = function returning void 6-4:660
CEESSCOS		Class = extern Type = function returning void 6-4:687
CEESSCSH		Class = extern Type = function returning void 6-4:750
CEESSCTN		Class = extern Type = function returning void 6-4:723
CEESSDIM		Class = extern Type = function returning void 6-4:927
CEESSERC		Class = extern Type = function returning void 6-4:831
CEESSERF		Class = extern Type = function returning void 6-4:822
CEESSEXP		Class = extern Type = function returning void 6-4:564
CEESSGMA		Class = extern Type = function returning void 6-4:840

```
 CEESSINT                        Class = extern
                                 Type = function returning void
                                 6-4:885

 CEESSLGM                        Class = extern
                                 Type = function returning void
                                 6-4:846
```



```
                          * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
 CEESSLG1                        Class = extern
                                 Type = function returning void
                                 6-4:546

 CEESSLG2                        Class = extern
                                 Type = function returning void
                                 6-4:555

 CEESSLOG                        Class = extern
                                 Type = function returning void
                                 6-4:528

 CEESSMOD                        Class = extern
                                 Type = function returning void
                                 6-4:876

 CEESSNIN                        Class = extern
                                 Type = function returning void
                                 6-4:918

 CEESSNWN                        Class = extern
                                 Type = function returning void
                                 6-4:912

 CEESSSGN                        Class = extern
                                 Type = function returning void
                                 6-4:939

 CEESSSIN                        Class = extern
                                 Type = function returning void
                                 6-4:669

 CEESSSNH                        Class = extern
                                 Type = function returning void
```

```
                                6-4:732

 CEESSSQT                       Class = extern
                                Type = function returning void
                                6-4:804

 CEESSTAN                       Class = extern
                                Type = function returning void
                                6-4:705

 CEESSTNH                       Class = extern
                                Type = function returning void
                                6-4:768

 CEESSXPI                       Class = extern
                                Type = function returning void
                                6-4:585

 CEESSXPS                       Class = extern
15694A01 V1.13 z/OS XL C              'SMORSA.BOSTON.ASM.SOURCE(CLOCKC)'                   08/10/2013 20:09:41   Page    54


                             * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
                                     Type = function returning void
                                     6-4:603

 CEESTABS                            Class = extern
                                     Type = function returning void
                                     6-4:864

 CEESTATH                            Class = extern
                                     Type = function returning void
                                     6-4:795

 CEESTATN                            Class = extern
                                     Type = function returning void
                                     6-4:651

 CEESTCJG                            Class = extern
                                     Type = function returning void
                                     6-4:903

 CEESTCOS                            Class = extern
                                     Type = function returning void
                                     6-4:696

 CEESTCSH                            Class = extern
```

```
                                Type = function returning void
                                6-4:759

 CEESTDVD                       Class = extern
                                Type = function returning void
                                6-4:957

 CEESTEXP                       Class = extern
                                Type = function returning void
                                6-4:573

 CEESTIMG                       Class = extern
                                Type = function returning void
                                6-4:894

 CEESTLOG                       Class = extern
                                Type = function returning void
                                6-4:537

 CEESTMLT                       Class = extern
                                Type = function returning void
                                6-4:948

 CEESTSIN                       Class = extern
                                Type = function returning void
                                6-4:678

 CEESTSNH                       Class = extern
                                Type = function returning void
15694A01 V1.13 z/OS XL C             'SMORSA.BOSTON.ASM.SOURCE(CLOCKC)'                  08/10/2013 20:09:41   Page    55


                             * * * * *  C R O S S   R E F E R E N C E   L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
                                     6-4:741

 CEESTSQT                            Class = extern
                                     Type = function returning void
                                     6-4:813

 CEESTTAN                            Class = extern
                                     Type = function returning void
                                     6-4:714

 CEESTTNH                            Class = extern
                                     Type = function returning void
                                     6-4:777
```

```
 CEESTXPI                        Class = extern
                                 Type = function returning void
                                 6-4:594

 CEESTXPT                        Class = extern
                                 Type = function returning void
                                 6-4:615

 CEETDLI                         Class = extern
                                 Type = function returning void
                                 6-4:524

 CEETEST                         Class = extern
                                 Type = function returning void
                                 6-4:444

 CEEUTC                          Class = extern
                                 Type = function returning void
                                 6-4:488

 CEE3ABD                         Class = extern
                                 Type = function returning void
                                 6-4:438

 CEE3AB2                         Class = extern
                                 Type = function returning void
                                 6-4:974

 CEE3CIB                         Class = extern
                                 Type = function returning void
                                 6-4:441

 CEE3CNC                         Class = extern
                                 Type = function returning void
                                 6-4:435

 CEE3CTY                         Class = extern
                                 Type = function returning void
                                 6-4:369
```


```
                          * * * * *  C R O S S  R E F E R E N C E  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>

 CEE3DLY                         Class = extern
                                 Type = function returning void
                                 6-4:981
```

```
CEE3DMP                         Class = extern
                                Type = function returning void
                                6-4:457, 61-0:61

CEE3GRC                         Class = extern
                                Type = function returning void
                                6-4:426

CEE3GRN                         Class = extern
                                Type = function returning void
                                6-4:432

CEE3GRO                         Class = extern
                                Type = function returning void
                                6-4:429

CEE3INF                         Class = extern
                                Type = function returning void
                                6-4:977

CEE3LNG                         Class = extern
                                Type = function returning void
                                6-4:366

CEE3MCS                         Class = extern
                                Type = function returning void
                                6-4:375

CEE3MC2                         Class = extern
                                Type = function returning void
                                6-4:378

CEE3MDS                         Class = extern
                                Type = function returning void
                                6-4:372

CEE3MTS                         Class = extern
                                Type = function returning void
                                6-4:381

CEE3PRM                         Class = extern
                                Type = function returning void
                                6-4:325

CEE3PR2                         Class = extern
                                Type = function returning void
                                6-4:970
```

```
                          * * * * *  C R O S S   R E F E R E N C E   L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES
                                     <SEQNBR>-<FILE NO>:<FILE LINE NO>
 CEE3RPH                             Class = extern
                                     Type = function returning void
                                     6-4:346

 CEE3SPM                             Class = extern
                                     Type = function returning void
                                     6-4:408

 CEE3SRC                             Class = extern
                                     Type = function returning void
                                     6-4:420

 CEE3SRP                             Class = extern
                                     Type = function returning void
                                     6-4:423

 CEE3USR                             Class = extern
                                     Type = function returning void
                                     6-4:509

 FILE                5-1:99          Class = typedef, Length = 4
                                     Type = struct __ffile
                                     5-1:406, 5-1:407, 5-1:408, 5-1:409, 5-1:410, 5-1:411, 5-1:412, 5-1:413, 5-1:414, 5-1:416,
                                     5-1:418, 5-1:419, 5-1:421, 5-1:422, 5-1:423, 5-1:424, 5-1:426, 5-1:427, 5-1:428, 5-1:430,
                                     5-1:431, 5-1:436, 5-1:441, 5-1:443, 5-1:444, 5-1:452, 5-1:454, 5-1:455, 5-1:834, 5-1:835,
                                     5-1:836, 5-1:838, 5-1:955

 GETSTCK                             Class = extern
                                     Type = function returning int
                                     30-0:30, 57-0:57

 GETSTCK_INPUT_PARMS 23-0:23         Class = typedef, Length = 24
                                     Type = struct tagGETSTCK_INPUT_PARMS
                                     30-0:30, 40-0:40

 QDATA               6-4:258         Class = struct tag
                                     6-4:306

                        * * * * *  E N D   O F   C R O S S   R E F E R E N C E   L I S T I N G  * * * * *
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                       * * * * *  M E S S A G E   S U M M A R Y  * * * * *
```

```
        Total            Informational(00)          Warning(10)          Error(30)           Severe Error(40)

          0                    0                       0                    0                        0
                                  * * * * *   E N D   O F   M E S S A G E   S U M M A R Y   * * * * *
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 OFFSET OBJECT CODE        LINE#  FILE#    P S E U D O   A S S E M B L Y   L I S T I N G

                           Timestamp and Version Information
 000000  F2F0  F1F3                                  =C'2013'          Compiled Year
 000004  F0F8  F1F0                                  =C'0810'          Compiled Date MMDD
 000008  F2F0  F0F9  F4F1                            =C'200941'        Compiled Time HHMMSS
 00000E  F0F1  F1F3  F0F0                            =C'011300'        Compiler Version

 000014  006E  ****                                  AL2(110),C'...'   Saved Options String
                           Timestamp and Version End

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 OFFSET OBJECT CODE        LINE#  FILE#    P S E U D O   A S S E M B L Y   L I S T I N G

                           000001 |       *  /* copyright IBM UK LTD 2013                                 */
                           000002 |       *  /* sample c program to invoke assembler routine              */
                           000003 |       *  /* the assembler routine does not require any working storage*/
                           000004 |       *
                           000005 |       *  #include <stdio.h>
                           000006 |       *  #include <leawi.h>
                           000007 |       *  #include <stdlib.h>
                           000008 |       *  #include <string.h>
                           000009 |       *  #include <ceeedcct.h>
                           000010 |       *
                           000011 |       *  #pragma linkage(GETSTCK,OS)              // use OS linkage
                           000012 |       *
                           000013 |       *  // define CEEDUMP options
                           000014 |       *  #define CEEDUMP_OPT "THREAD(CURRENT) TRACEBACK FILES"
                           000015 |       *
                           000016 |       *  // define parms passed to GETSTCK
                           000017 |       *  typedef struct tagGETSTCK_INPUT_PARMS    // input parms structure
                           000018 |       *  {
                           000019 |       *  char eyecatcher??(4??);       // eye catcher
                           000020 |       *  long version;                 // version
                           000021 |       *  long function;                // request
                           000022 |       *  long returnValue??(3??);      //  returned value
                           000023 |       *  } GETSTCK_INPUT_PARMS;
                           000024 |       *
                           000025 |       *  #define Return_STCK   1
                           000026 |       *  #define Return_STCKF  2
                           000027 |       *  #define Return_STCKE  3
                           000028 |       *
                           000029 |       *  // prototype GETSTCK
```

```
                        000030 |       *  int GETSTCK(GETSTCK_INPUT_PARMS *);
                        000031 |       *
                        000032 |       *  int main()              // main c routine
 000000                 000032 |        main     DS       0D
 000000  47F0  F022     000032 |                 B        34(,r15)
 000004  01C3C5C5                               CEE eyecatcher
 000008  00000248                               DSA size
 00000C  00000228                               =A(PPA1-main)
 000010  47F0  F001     000032 |                 B        1(,r15)
 000014  58F0  C31C     000032 |                 L        r15,796(,r12)
 000018  184E           000032 |                 LR       r4,r14
 00001A  05EF           000032 |                 BALR     r14,r15
 00001C  00000000                                =F'0'
 000020  07F3           000032 |                 BR       r3
 000022  90E6  D00C     000032 |                 STM      r14,r6,12(r13)
 000026  58E0  D04C     000032 |                 L        r14,76(,r13)
 00002A  4100  E248     000032 |                 LA       r0,584(,r14)
 00002E  5500  C314     000032 |                 CL       r0,788(,r12)
 000032  4130  F03A     000032 |                 LA       r3,58(,r15)
 000036  4720  F014     000032 |                 BH       20(,r15)
 00003A  58F0  C280     000032 |                 L        r15,640(,r12)
 00003E  90F0  E048     000032 |                 STM      r15,r0,72(r14)
 000042  9210  E000     000032 |                 MVI      0(r14),16
 000046  50D0  E004     000032 |                 ST       r13,4(,r14)
 00004A  18DE           000032 |                 LR       r13,r14
 00004C                 End of Prolog

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 00004C  C050  0000  008E  000000 |                 LARL     r5,F'142'
                        000033 |       *  {
                        000034 |       *
                        000035 |       *   // define CEEDUMP dump title
                        000036 |       *   _CHAR80 title = "CLOCKC CEEDUMP - storage -diagnoistics ";
 000052  D227  D0A8  5025  000036 |                 MVC      title£init£0(40,r13,168),+CONSTANT_AREA(r5,37)
 000058  9200  D0D0        000036 |                 MVI      title(r13,208),0
 00005C  D226  D0D1  D0D0  000036 |                 MVC      title(39,r13,209),title(r13,208)
                        000037 |       *   _CHAR255 options;   // CEEDUMP options
                        000038 |       *   _FEEDBACK fc;
                        000039 |       *   // define parameters passed to GETSTCK
                        000040 |       *    GETSTCK_INPUT_PARMS parms;
                        000041 |       *    int rc = 1;
 000062  4120  0001        000041 |                 LA       r2,1
 000066  5020  D220        000041 |                 ST       r2,rc(,r13,544)
                        000042 |       *
                        000043 |       *    // initialise storage
                        000044 |       *    memset(options,' ',sizeof(options));
 00006A  4110  D0F8        000044 |                 LA       r1,options(,r13,248)
```

```
 00006E  5010  D22C        000044 |                ST       r1,#STRTEMP1(,r13,556)
 000072  9240  1000        000044 |                MVI      options(r1,0),64
 000076  D2FD  1001  1000  000044 |                MVC      options(254,r1,1),options(r1,0)
                           000045 |       *    memcpy(options,CEEDUMP_OPT,sizeof(CEEDUMP_OPT)-1);
 00007C  D21E  D0F8  5000  000045 |                MVC      options(31,r13,248),'THREAD(CURRENT) TRACEBACK FILES.'(r5,0)
                           000046 |       *
                           000047 |       *    // say we starting
                           000048 |       *    printf("CLOCKC Started \n");
 000082  58F0  3122        000048 |                L        r15,=V(printf)(,r3,290)
 000086  4100  504D        000048 |                LA       r0,+CONSTANT_AREA(,r5,77)
 00008A  4110  D098        000048 |                LA       r1,#MX_TEMP1(,r13,152)
 00008E  5000  D098        000048 |                ST       r0,#MX_TEMP1(,r13,152)
 000092  0DEF              000048 |                BASR     r14,r15
 000094  1802              000048 |                LR       r0,r2
                           000049 |       *
                           000050 |       *    // initialise our parameter block
                           000051 |       *    // this is the area we pass to GETSTCK
                           000052 |       *    memcpy(&parms.eyecatcher,"GETS",4);
 000096  D203  D208  5020  000052 |                MVC      parms(4,r13,520),'GETS.'(r5,32)
                           000053 |       *    parms.version = 1;                // version 1 of interface
 00009C  5000  D20C        000053 |                ST       r0,parms.tagGETSTCK_INPUT_PARMS.version(,r13,524)
                           000054 |       *    parms.function = Return_STCKF;    // return STCKF value
 0000A0  4100  0002        000054 |                LA       r0,2
 0000A4  5000  D210        000054 |                ST       r0,parms.tagGETSTCK_INPUT_PARMS.function(,r13,528)
                           000055 |       *
                           000056 |       *    // invoke GETSTCK
                           000057 |       *    rc = GETSTCK(&parms);
 0000A8  4100  D208        000057 |                LA       r0,parms(,r13,520)
 0000AC  A50A  8000        000057 |                OILH     r0,H'-32768'
 0000B0  58F0  3126        000057 |                L        r15,=V(GETSTCK)(,r3,294)
 0000B4  4110  D098        000057 |                LA       r1,#MX_TEMP1(,r13,152)
 0000B8  5000  D098        000057 |                ST       r0,#MX_TEMP1(,r13,152)
 0000BC  0DEF              000057 |                BASR     r14,r15
 0000BE  180F              000057 |                LR       r0,r15
 0000C0  5000  D220        000057 |                ST       r0,rc(,r13,544)
                           000058 |       *
                           000059 |       *    // dbebugging - use CEEDUMP to dump our storage area
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                           000060 |       *    printf("GETSTCK_INPUT_PARMS located at %p \n",&parms);
 0000C4  4100  D208        000060 |                LA       r0,parms(,r13,520)
 0000C8  58F0  3122        000060 |                L        r15,=V(printf)(,r3,290)
 0000CC  4120  505E        000060 |                LA       r2,+CONSTANT_AREA(,r5,94)
 0000D0  4110  D098        000060 |                LA       r1,#MX_TEMP1(,r13,152)
 0000D4  5020  D098        000060 |                ST       r2,#MX_TEMP1(,r13,152)
 0000D8  5000  D09C        000060 |                ST       r0,#MX_TEMP1(,r13,156)
 0000DC  0DEF              000060 |                BASR     r14,r15
                           000061 |       *    CEE3DMP(title,options,&fc);
```

```
 0000DE  4100  D1F8        000061 |                LA       r0,fc(,r13,504)
 0000E2  4120  D0F8        000061 |                LA       r2,options(,r13,248)
 0000E6  4140  D0A8        000061 |                LA       r4,title(,r13,168)
 0000EA  58F0  312A        000061 |                L        r15,=V(CEE3DMP)(,r3,298)
 0000EE  4110  D098        000061 |                LA       r1,#MX_TEMP1(,r13,152)
 0000F2  5040  D098        000061 |                ST       r4,#MX_TEMP1(,r13,152)
 0000F6  5020  D09C        000061 |                ST       r2,#MX_TEMP1(,r13,156)
 0000FA  5000  D0A0        000061 |                ST       r0,#MX_TEMP1(,r13,160)
 0000FE  0DEF              000061 |                BASR     r14,r15
                           000062 |       *    printf("returnedValue %8.8x %8.8x %8.8x \n",
 000100  5840  D214        000062 |                L        r4,parms.tagGETSTCK_INPUT_PARMS.Ý¨0(,r13,532)
 000104  5820  D218        000062 |                L        r2,parms.tagGETSTCK_INPUT_PARMS.Ý¨0(,r13,536)
 000108  5800  D21C        000062 |                L        r0,parms.tagGETSTCK_INPUT_PARMS.Ý¨0(,r13,540)
 00010C  58F0  3122        000062 |                L        r15,=V(printf)(,r3,290)
 000110  4160  5082        000062 |                LA       r6,+CONSTANT_AREA(,r5,130)
 000114  4110  D098        000062 |                LA       r1,#MX_TEMP1(,r13,152)
 000118  5060  D098        000062 |                ST       r6,#MX_TEMP1(,r13,152)
 00011C  5040  D09C        000062 |                ST       r4,#MX_TEMP1(,r13,156)
 000120  5020  D0A0        000062 |                ST       r2,#MX_TEMP1(,r13,160)
 000124  5000  D0A4        000062 |                ST       r0,#MX_TEMP1(,r13,164)
 000128  0DEF              000062 |                BASR     r14,r15
                           000063 |       *           parms.returnValue??(0??),
                           000064 |       *           parms.returnValue??(1??),
                           000065 |       *           parms.returnValue??(2??));
                           000066 |       *
                           000067 |       *    // printc RC - should be the same as the request code - else
                           000068 |       *    // it failed
                           000069 |       *    printf("CLOCKC ended rc(%ld) \n",rc);
 00012A  5800  D220        000069 |                L        r0,rc(,r13,544)
 00012E  58F0  3122        000069 |                L        r15,=V(printf)(,r3,290)
 000132  4120  50A4        000069 |                LA       r2,+CONSTANT_AREA(,r5,164)
 000136  4110  D098        000069 |                LA       r1,#MX_TEMP1(,r13,152)
 00013A  5020  D098        000069 |                ST       r2,#MX_TEMP1(,r13,152)
 00013E  5000  D09C        000069 |                ST       r0,#MX_TEMP1(,r13,156)
 000142  0DEF              000069 |                BASR     r14,r15
                           000070 |       *    return(rc);
 000144  58F0  D220        000070 |                L        r15,rc(,r13,544)
                           000071 |       *  }
 000148                    000071 |        @1L1     DS       0H

 000148                    Start of Epilog
 000148  180D              000071 |                LR       r0,r13
 00014A  58D0  D004        000071 |                L        r13,4(,r13)
 00014E  58E0  D00C        000071 |                L        r14,12(,r13)
 000152  9826  D01C        000071 |                LM       r2,r6,28(r13)
 000156  051E              000071 |                BALR     r1,r14
 000158  0707              000071 |                NOPR     7
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 OFFSET OBJECT CODE        LINE#  FILE#    P S E U D O   A S S E M B L Y   L I S T I N G
```

```
 00015A  0000

 00015C                   Start of Literals
 00015C  00000000                                    =V(printf)
 000160  00000000                                    =V(GETSTCK)
 000164  00000000                                    =V(CEE3DMP)
 000168                   End of Literals

                          ***   General purpose registers used: 1111111000001111
                          ***   Floating point  registers used: 1111111100000000
                          ***   Size of register spill area: 128(max) 0(used)
                          ***   Size of dynamic storage: 584
                          ***   Size of executable code: 346
                          ***   CSECT Offset: 136 : 0x88

                          Constant Area
 000000  E3C8D9C5 C1C44DC3 E4D9D9C5 D5E35D40    |THREAD(CURRENT) |
 000010  E3D9C1C3 C5C2C1C3 D240C6C9 D3C5E200    |TRACEBACK FILES.|
 000020  C7C5E3E2 00C3D3D6 C3D2C340 C3C5C5C4    |GETS.CLOCKC CEED|
 000030  E4D4D740 6040A2A3 96998187 85406084    |UMP - storage -d|
 000040  89818795 9689A2A3 8983A240 00C3D3D6    |iagnoistics .CLO|
 000050  C3D2C340 E2A38199 A3858440 1500C7C5    |CKC Started ..GE|
 000060  E3E2E3C3 D26DC9D5 D7E4E36D D7C1D9D4    |TSTCK_INPUT_PARM|
 000070  E2409396 8381A385 844081A3 406C9740    |S located at %p |
 000080  15009985 A3A49995 8584E581 93A48540    |..returnedValue |
 000090  6CF84BF8 A7406CF8 4BF8A740 6CF84BF8    |%8.8x %8.8x %8.8|
 0000A0  A7401500 C3D3D6C3 D2C34085 95848584    |x ..CLOCKC ended|
 0000B0  4099834D 6C93845D 401500              | rc(%ld) ..     |
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 OFFSET OBJECT CODE        LINE#  FILE#    P S E U D O   A S S E M B L Y   L I S T I N G

                          PPA1: Entry Point Constants
 000000  1CCEA106                                    =F'483303686'      Flags
 000004  00000268                                    =A(PPA2-main)
 000008  00000000                                    =F'0'              No PPA3
 00000C  00000000                                    =F'0'              No EPD
 000010  FF800000                                    =F'-8388608'       Register save mask
 000014  00000000                                    =F'0'              Member flags
 000018  90                                          =AL1(144)          Flags
 000019  000000                                      =AL3(0)            Callee's DSA use/8
 00001C  0040                                        =H'64'             Flags
 00001E  0012                                        =H'18'             Offset/2 to CDL
 000020  00000000                                    =F'0'              Reserved
 000024  500000AD                                    =F'1342177453'     CDL function length/2
 000028  FFFFFDD8                                    =F'-552'           CDL function EP offset
 00002C  38260000                                    =F'942014464'      CDL prolog
 000030  400900A4                                    =F'1074331812'     CDL epilog
 000034  00000000                                    =F'0'              CDL end
```

```
 000038  0004  ****                                    AL2(4),C'main'
                       PPA1 End

                       PPA2: Compile Unit Block
 000000  0300  2203                                    =F'50340355'       Flags
 000004  FFFF  FD10                                    =A(CEESTART-PPA2)
 000008  0000  0000                                    =F'0'              No PPA4
 00000C  FFFF  FD10                                    =A(TIMESTMP-PPA2)
 000010  0000  0000                                    =F'0'              No primary
 000014  0200  0000                                    =F'33554432'       Flags
                       PPA2 End
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                              E X T E R N A L   S Y M B O L   D I C T I O N A R Y

                     TYPE  ID  ADDR    LENGTH            NAME

                      SD    1 000000                    CLOCKC#C
                      ED    2 000000   000308           C_CODE
                      LD    3 000000   000000           CLOCKC#C
                      LD    4 000088   000000           main
                      ER    5 000000                    CEESG003
                      ED    6 000000   000004           C_DATA
                      LD    7 000000   000000           CLOCKC#T
                      ER    8 000000                    printf
                      ER    9 000000                    GETSTCK
                      ER   10 000000                    CEE3DMP
                      ER   18 000000                    CEESTART
                      ED   19 000000   000000           C_@@PPA2
                      PR   20 000000   000008
                      SD   21 000000                    CLOCKC#S
                      ED   22 000000   000004           C_DATA
                      LD   23 000000   000000           CLOCKC#S
                      SD   24 000000                    CEEMAIN
                      ED   25 000000   00000C           C_DATA
                      LD   26 000000   000000           CEEMAIN
                      ER   27 000000                    EDCINPL
                      ED   29 000000   00028D           C_COPTIONS
                      ED   30 000000   000022           B_IDRL
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                                E X T E R N A L   S Y M B O L   C R O S S   R E F E R E N C E

          ORIGINAL NAME                             EXTERNAL SYMBOL NAME

          CLOCKC#C                                  CLOCKC#C
          main                                      main
          CEESG003                                  CEESG003
          CLOCKC#T                                  CLOCKC#T
          printf                                    printf
```

```
          GETSTCK                                   GETSTCK
          CEE3DMP                                   CEE3DMP
          CEESTART                                  CEESTART
          @@PPA2
          CLOCKC#S                                  CLOCKC#S
          CEEMAIN                                   CEEMAIN
          EDCINPL                                   EDCINPL
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                              * * * * *  S T O R A G E  O F F S E T  L I S T I N G  * * * * *

 IDENTIFIER          DEFINITION      ATTRIBUTES

 title               36-0:36         Class = automatic,          Location = 168(r13),                      Length = 80

 options             37-0:37         Class = automatic,          Location = 248(r13),                      Length = 255

 fc                  38-0:38         Class = automatic,          Location = 504(r13),                      Length = 12

 parms               40-0:40         Class = automatic,          Location = 520(r13),                      Length = 24

 rc                  41-0:41         Class = automatic,          Location = 544(r13),                      Length = 4

 parms.tagGETSTCK_INPUT_PARMS.function
                     21-0:21         Class = automatic,          Offset = 8,                               Length = 4

 parms.tagGETSTCK_INPUT_PARMS.version
                     20-0:20         Class = automatic,          Offset = 4,                               Length = 4

 parms.tagGETSTCK_INPUT_PARMS.eyecatcher
                     19-0:19         Class = automatic,          Offset = 0,                               Length = 4

                          * * * * *  E N D  O F  S T O R A G E  O F F S E T  L I S T I N G  * * * * *

                             * * * * *  E N D  O F  C O M P I L A T I O N  * * * * *
1z/OS V1 R13 BINDER     20:09:43 SATURDAY AUGUST 10, 2013
 BATCH EMULATOR  JOB(GACUC   ) STEP(LKED    ) PGM= IEWBLINK
 IEW2278I B352 INVOCATION PARAMETERS - XREF,LIST,MAP
 IEW2322I 1220  1     INCLUDE  SYSLIB(CLOCKC)
 IEW2322I 1220  2     INCLUDE  SYSLIB(GETSTCK)
 IEW2322I 1220  3     NAME  CLOCKC(R)

1                         *** M O D U L E  M A P ***

 ---------------
 CLASS  C_CODE             LENGTH =      384  ATTRIBUTES = CAT,   LOAD, RMODE=ANY
                           OFFSET =        0 IN SEGMENT 001       ALIGN = DBLWORD
 ---------------

  SECTION    CLASS                                    ------- SOURCE --------
```

```
  OFFSET   OFFSET  NAME                TYPE    LENGTH  DDNAME   SEQ  MEMBER

               0  CLOCKC#C           CSECT       308  SYSLIB    01  CLOCKC
       0       0     CLOCKC#C           LABEL
      88      88     main               LABEL

             308  CEESTART           CSECT        7C  SYSLIB    01  CLOCKC
       0     308     CEESTART           LABEL

---------------
CLASS  C_DATA            LENGTH =       1C  ATTRIBUTES = CAT,   LOAD, RMODE=ANY
                         OFFSET =      388 IN SEGMENT 001       ALIGN = DBLWORD
---------------

 SECTION    CLASS                                        ------- SOURCE --------
  OFFSET   OFFSET  NAME                TYPE    LENGTH  DDNAME   SEQ  MEMBER

               0  CLOCKC#C           CSECT         4  SYSLIB    01  CLOCKC
       0       0     CLOCKC#T           LABEL

               8  CLOCKC#S           CSECT         4  SYSLIB    01  CLOCKC
       0       8     CLOCKC#S           LABEL

              10  CEEMAIN            CSECT         C  SYSLIB    01  CLOCKC
       0      10     CEEMAIN            LABEL

---------------
CLASS  C_@@PPA2          LENGTH =        8  ATTRIBUTES = MRG,   LOAD, RMODE=ANY
                         OFFSET =      3A8 IN SEGMENT 001       ALIGN = DBLWORD
---------------

           CLASS
          OFFSET  NAME                TYPE    LENGTH   SECTION
               0  £PRIV000010      PART             8  CLOCKC#C

---------------
CLASS  B_LIT             LENGTH =       E0  ATTRIBUTES = CAT,   LOAD, RMODE=ANY
                         OFFSET =      3B0 IN SEGMENT 001       ALIGN = DBLWORD
---------------

 SECTION    CLASS                                        ------- SOURCE --------
  OFFSET   OFFSET  NAME                TYPE    LENGTH  DDNAME   SEQ  MEMBER

               0  IEWBLIT            CSECT        E0                **NULL**
       0       0     IEWBLIT            LABEL
1                       *** M O D U L E  M A P ***

---------------
CLASS  B_TEXT            LENGTH =      9F2  ATTRIBUTES = CAT,   LOAD, RMODE= 24
                         OFFSET =        0 IN SEGMENT 002       ALIGN = DBLWORD
```

```
---------------

 SECTION    CLASS                                        ------- SOURCE --------
  OFFSET   OFFSET  NAME                TYPE    LENGTH  DDNAME   SEQ  MEMBER

               0  GETSTCK            CSECT        A0  SYSLIB    01  GETSTCK

              A0  CEEROOTA        *  CSECT       1F0  SYSLIB    02  CEEROOTA
       0      A0     CEEROOTD           LABEL

             290  CEEBETBL        *  CSECT        28  SYSLIB    02  CEEBETBL

             2B8  EDCINPL         *  CSECT        24  SYSLIB    02  EDCINPL

             2E0  CEE3DMP         *  CSECT        14  SYSLIB    02  CEE3DMP

             2F8  CEESG003        *  CSECT       12B  SYSLIB    02  CEESG003

             428  CEEBPUBT        *  CSECT        70  SYSLIB    02  CEEBPUBT

             498  CEEBTRM         *  CSECT        A4  SYSLIB    02  CEEBTRM

             540  CEEBLLST        *  CSECT        5C  SYSLIB    02  CEEBLLST
      10     550     CEELLIST           LABEL

             5A0  CEEBINT         *  CSECT         8  SYSLIB    02  CEEBINT

             5A8  CEEARLU         *  CSECT        B8  SYSLIB    02  CEEARLU

             660  CEEBPIRA        *  CSECT       2A0  SYSLIB    02  CEEINT
       0     660     CEEINT             LABEL
       0     660     CEEBPIRB           LABEL
       0     660     CEEBPIRC           LABEL

             900  CEECPYRT        *  CSECT        E2  SYSLIB    02  CEEINT

             9E8  PRINTF          *  CSECT         A  SYSLIB    02  PRINTF

---------------
CLASS  C_COPTIONS        LENGTH =      28D  ATTRIBUTES = CAT, NOLOAD

---------------

 SECTION    CLASS                                        ------- SOURCE --------
  OFFSET   OFFSET  NAME                TYPE    LENGTH  DDNAME   SEQ  MEMBER

               0  CLOCKC#C           CSECT       28D  SYSLIB    01  CLOCKC
1                     *** M O D U L E  M A P ***

---------------
```

```
 CLASS  B_PRV            LENGTH =       0  ATTRIBUTES = MRG, NOLOAD

 ---------------
1          ***  DATA SET SUMMARY  ***

 DDNAME    CONCAT   FILE IDENTIFICATION

 SYSLIB      01     SMORSA.BOSTON.ASM.OBJ
 SYSLIB      02     PP.ADLE370.ZOS113.SCEELKED
1 ***  RENAMED SYMBOL CROSS REFERENCE  ***
  ---------------------
  RENAMED SYMBOL
        SOURCE SYMBOL
  ---------------------

  PRINTF
        printf

  ***  END OF RENAMED SYMBOL CROSS REFERENCE  ***

           *** E N D  O F  M O D U L E  M A P ***


1                                  C R O S S - R E F E R E N C E  T A B L E
                                   _____________________________________

 TEXT CLASS = C_CODE

 ---------------  R E F E R E N C E  -------------------------  T A R G E T  ----------------------------------------
   CLASS                          ELEMENT       |                                          ELEMENT                 |
   OFFSET SECT/PART(ABBREV)        OFFSET  TYPE | SYMBOL(ABBREV)   SECTION (ABBREV)          OFFSET CLASS NAME       |
                                                |                                                                    |
      1E4 CLOCKC#C                    1E4 V-CON | PRINTF           PRINTF                         0 B_TEXT          |
      1E8 CLOCKC#C                    1E8 V-CON | GETSTCK          GETSTCK                        0 B_TEXT          |
      1EC CLOCKC#C                    1EC V-CON | CEE3DMP          CEE3DMP                        0 B_TEXT          |
      2F4 CLOCKC#C                    2F4 A-CON | CEESTART         CEESTART                       0 C_CODE          |
      334 CEESTART                     2C V-CON | CEEMAIN          CEEMAIN                        0 C_DATA          |
      370 CEESTART                     68 V-CON | CEEFMAIN         £UNRESOLVED(W)                                   |
      37C CEESTART                     74 V-CON | CEEBETBL         CEEBETBL                       0 B_TEXT          |
      380 CEESTART                     78 V-CON | CEEROOTA         CEEROOTA                       0 B_TEXT          |


 TEXT CLASS = C_DATA

 ---------------  R E F E R E N C E  -------------------------  T A R G E T  ----------------------------------------
   CLASS                          ELEMENT       |                                          ELEMENT                 |
   OFFSET SECT/PART(ABBREV)        OFFSET  TYPE | SYMBOL(ABBREV)   SECTION (ABBREV)          OFFSET CLASS NAME       |
                                                |                                                                    |
       14 CEEMAIN                         4 V-CON | main            CLOCKC#C                      88 C_CODE          |
       18 CEEMAIN                         8 V-CON | EDCINPL         EDCINPL                        0 B_TEXT          |
```

TEXT CLASS = C_@@PPA2

REFERENCE				TARGET			
CLASS OFFSET	SECT/PART(ABBREV)	ELEMENT OFFSET	TYPE	SYMBOL(ABBREV)	SECTION (ABBREV)	ELEMENT OFFSET	CLASS NAME
4	£PRIV000010	4	A-CON	CLOCKC#C	CLOCKC#C	0	C_CODE

TEXT CLASS = B_LIT

REFERENCE				TARGET			
CLASS OFFSET	SECT/PART(ABBREV)	ELEMENT OFFSET	TYPE	SYMBOL(ABBREV)	SECTION (ABBREV)	ELEMENT OFFSET	CLASS NAME
28	IEWBLIT	28	L TOKE				
50	IEWBLIT	50	C-LEN		£NON-RELOCATABLE		C_CODE
54	IEWBLIT	54	A-CON				C_CODE
70	IEWBLIT	70	C-LEN		£NON-RELOCATABLE		C_DATA
74	IEWBLIT	74	A-CON				C_DATA
90	IEWBLIT	90	C-LEN		£NON-RELOCATABLE		C_@@PPA2
94	IEWBLIT	94	A-CON				C_@@PPA2
B0	IEWBLIT	B0	C-LEN		£NON-RELOCATABLE		B_LIT
B4	IEWBLIT	B4	A-CON				B_LIT
D0	IEWBLIT	D0	C-LEN		£NON-RELOCATABLE		B_TEXT
D4	IEWBLIT	D4	A-CON				B_TEXT

TEXT CLASS = B_TEXT

REFERENCE				TARGET			
CLASS OFFSET	SECT/PART(ABBREV)	ELEMENT OFFSET	TYPE	SYMBOL(ABBREV)	SECTION (ABBREV)	ELEMENT OFFSET	CLASS NAME
260	CEEROOTA	1C0	A-CON	CEEROOTB	£UNRESOLVED(W)		

1 C R O S S - R E F E R E N C E T A B L E

TEXT CLASS = B_TEXT

REFERENCE				TARGET			
CLASS OFFSET	SECT/PART(ABBREV)	ELEMENT OFFSET	TYPE	SYMBOL(ABBREV)	SECTION (ABBREV)	ELEMENT OFFSET	CLASS NAME
264	CEEROOTA	1C4	V-CON	CEEINT	CEEBPIRA	0	B_TEXT
268	CEEROOTA	1C8	A-CON	CEEOPIPI	£UNRESOLVED(W)		

```
 26C CEEROOTA                1CC A-CON | CEEFMAIN        £UNRESOLVED(W)                          |
 270 CEEROOTA                1D0 V-CON | CEEARLU        CEEARLU                  0 B_TEXT       |
 274 CEEROOTA                1D4 A-CON | CEESG010       £UNRESOLVED(W)                          |
 278 CEEROOTA                1D8 A-CON | IBMSEMNA       £UNRESOLVED(W)                          |
 27C CEEROOTA                1DC A-CON | EDCDMAIN       £UNRESOLVED(W)                          |
 280 CEEROOTA                1E0 A-CON | PLIMAIN        £UNRESOLVED(W)                          |
 284 CEEROOTA                1E4 A-CON | CEEMAIN         CEEMAIN                  0 C_DATA       |
 294 CEEBETBL                  4 V-CON | CEEBXITA       £UNRESOLVED(W)                          |
 298 CEEBETBL                  8 V-CON | CEEBINT         CEEBINT                  0 B_TEXT       |
 29C CEEBETBL                  C V-CON | CEEBLLST        CEEBLLST                 0 B_TEXT       |
 2A0 CEEBETBL                 10 V-CON | CEEUOPT         £UNRESOLVED(W)                          |
 2A4 CEEBETBL                 14 V-CON | CEEBTRM         CEEBTRM                  0 B_TEXT       |
 2AC CEEBETBL                 1C V-CON | CEEBPUBT        CEEBPUBT                 0 B_TEXT       |
 2B0 CEEBETBL                 20 V-CON | IEWBLIT         IEWBLIT                  0 B_LIT        |
 2B8 EDCINPL                   0 A-CON | CEEMAIN         CEEMAIN                  0 C_DATA       |
 2C4 EDCINPL                   C A-CON | CEEMAIN         CEEMAIN                  0 C_DATA       |
 2C8 EDCINPL                  10 V-CON | CEESTART        CEESTART                 0 C_CODE       |
 2CC EDCINPL                  14 V-CON | CEEBETBL        CEEBETBL                 0 B_TEXT       |
 304 CEESG003                  C A-CON | @@XINIT@        £UNRESOLVED(W)                          |
 308 CEESG003                 10 A-CON | @@INIT@         £UNRESOLVED(W)                          |
 310 CEESG003                 18 A-CON | CTDLI           £UNRESOLVED(W)                          |
 340 CEESG003                 48 A-CON | @@DLL           £UNRESOLVED(W)                          |
 344 CEESG003                 4C A-CON | @@DLLUX         £UNRESOLVED(W)                          |
 348 CEESG003                 50 A-CON | @@DLLI          £UNRESOLVED(W)                          |
 34C CEESG003                 54 A-CON | CBCSG003        £UNRESOLVED(W)                          |
 3D8 CEESG003                 E0 A-CON | @@PPA2          £UNRESOLVED(W)                          |
 504 CEEBTRM                  6C A-CON | CEEBPUBT        CEEBPUBT                 0 B_TEXT       |
 550 CEEBLLST                 10 A-CON | CEESG000        £UNRESOLVED(W)                          |
 554 CEEBLLST                 14 A-CON | CEESG001        £UNRESOLVED(W)                          |
 558 CEEBLLST                 18 A-CON | CEESG002        £UNRESOLVED(W)                          |
 55C CEEBLLST                 1C A-CON | CEESG003        CEESG003                 0 B_TEXT       |
 560 CEEBLLST                 20 A-CON | CEESG004        £UNRESOLVED(W)                          |
 564 CEEBLLST                 24 A-CON | CEESG005        £UNRESOLVED(W)                          |
 568 CEEBLLST                 28 A-CON | CEESG006        £UNRESOLVED(W)                          |
 56C CEEBLLST                 2C A-CON | CEESG007        £UNRESOLVED(W)                          |
 570 CEEBLLST                 30 A-CON | CEESG008        £UNRESOLVED(W)                          |
 574 CEEBLLST                 34 A-CON | CEESG009        £UNRESOLVED(W)                          |
 578 CEEBLLST                 38 A-CON | CEESG010        £UNRESOLVED(W)                          |
 57C CEEBLLST                 3C A-CON | CEESG011        £UNRESOLVED(W)                          |
 580 CEEBLLST                 40 A-CON | CEESG012        £UNRESOLVED(W)                          |
 584 CEEBLLST                 44 A-CON | CEESG013        £UNRESOLVED(W)                          |
 588 CEEBLLST                 48 A-CON | CEESG014        £UNRESOLVED(W)                          |
 58C CEEBLLST                 4C A-CON | CEESG015        £UNRESOLVED(W)                          |
 590 CEEBLLST                 50 A-CON | CEESG016        £UNRESOLVED(W)                          |
 890 CEEBPIRA                230 A-CON | CEEBPUBT        CEEBPUBT                 0 B_TEXT       |

1                            C R O S S - R E F E R E N C E   T A B L E
                             _____________________________________
```

```
 TEXT CLASS = B_TEXT

 ---------------  R E F E R E N C E  --------------------------  T A R G E T  -------------------------------------------
   CLASS                             ELEMENT       |                                            ELEMENT                  |
   OFFSET SECT/PART(ABBREV)           OFFSET  TYPE | SYMBOL(ABBREV)   SECTION (ABBREV)           OFFSET CLASS NAME       |
                                                   |                                                                     |


 TEXT CLASS = C_COPTIONS

 ---------------  R E F E R E N C E  --------------------------  T A R G E T  -------------------------------------------
   CLASS                             ELEMENT       |                                            ELEMENT                  |
   OFFSET SECT/PART(ABBREV)           OFFSET  TYPE | SYMBOL(ABBREV)   SECTION (ABBREV)           OFFSET CLASS NAME       |
                                                   |                                                                     |
                                        *** E N D  O F  C R O S S  R E F E R E N C E ***


                                 *** O P E R A T I O N  S U M M A R Y  R E P O R T ***

1PROCESSING OPTIONS:

    ALIASES             NO
    ALIGN2              NO
    AMODE               UNSPECIFIED
    CALL                YES
    CASE                UPPER
    COMPAT              UNSPECIFIED
    COMPRESS            AUTO
    DCBS                NO
    DYNAM               NO
    EXTATTR             UNSPECIFIED
    EXITS:              NONE
    FILL                NONE
    GID                 UNSPECIFIED
    HOBSET              NO
    INFO                NO
    LET                 04
    LINECT              060
    LIST                SUMMARY
    LISTPRIV            NO
    MAP                 YES
    MAXBLK              032760
    MODMAP              NO
    MSGLEVEL            00
    OVLY                NO
    PRINT               YES
    RES                 NO
    REUSABILITY         UNSPECIFIED
    RMODE               UNSPECIFIED
```

```
    SIGN                NO
    STORENX             NOREPLACE
    STRIPCL             NO
    STRIPSEC            NO
    TERM                NO
    TRAP                ON
    UID                 UNSPECIFIED
    UPCASE              NO
    WKSPACE             000000K,000000K
    XCAL                NO
    XREF                YES
    ***END OF OPTIONS***



1SAVE OPERATION SUMMARY:

    MEMBER NAME         CLOCKC
    LOAD LIBRARY        SMORSA.BOSTON.ASM.LOAD
    PROGRAM TYPE        PROGRAM OBJECT(FORMAT 3)
    VOLUME SERIAL       37P004
    DISPOSITION         REPLACED
    TIME OF SAVE        20.09.43  AUG 10, 2013


1SAVE MODULE ATTRIBUTES:

    AC                  000
    AMODE               ANY
    COMPRESSION         NONE
    DC                  NO
    EDITABLE            YES
    EXCEEDS 16MB        NO
    EXECUTABLE          YES
    MIGRATABLE          NO
    OL                  NO
    OVLY                NO
    PACK,PRIME          NO,NO
    PAGE ALIGN          NO
    REFR                NO
    RENT                NO
    REUS                NO
    RMODE                24
    SCTR                NO
    SIGN                NO
    SSI
    SYM GENERATED       NO
    TEST                NO
    XPLINK              NO
```

```
    MODULE SIZE (HEX)   00000E88
    DASD SIZE (HEX)     00009000

1 ENTRY POINT AND ALIAS SUMMARY:

  NAME:            ENTRY TYPE AMODE C_OFFSET CLASS NAME        STATUS

  CEESTART          MAIN_EP     ANY 00000308 C_CODE

                        *** E N D   O F   O P E R A T I O N   S U M M A R Y   R E P O R T ***



1z/OS V1 R13 BINDER     20:09:43 SATURDAY AUGUST 10, 2013
 BATCH EMULATOR  JOB(GACUC   ) STEP(LKED    ) PGM= IEWBLINK
 IEW2008I 0F03 PROCESSING COMPLETED.  RETURN CODE =  0.



1----------------------
 MESSAGE SUMMARY REPORT
 ----------------------
  TERMINAL MESSAGES      (SEVERITY = 16)
  NONE

  SEVERE MESSAGES        (SEVERITY = 12)
  NONE

  ERROR MESSAGES         (SEVERITY = 08)
  NONE

  WARNING MESSAGES       (SEVERITY = 04)
  NONE

  INFORMATIONAL MESSAGES (SEVERITY = 00)
  2008  2278  2322


  **** END OF MESSAGE SUMMARY REPORT ****


=======================JOB OUTPUT ========================================

 CLOCKC Started
 GETSTCK_INPUT_PARMS located at 20117450
 returnedValue cbcadc19 4c591680 00000000
 CLOCKC ended rc(2)
1CEE3DMP V1 R13.0: CLOCKC CEEDUMP - storage -diagnoistics
 ASID: 002B   Job ID: JOB20890   Job name: GACUC      Step name: RUN        UserID: SMORSA
```

```
CEE3845I CEEDUMP Processing started.
CEE3DMP called by program unit  (entry point main) at offset +000000FE.

Registers on Entry to CEE3DMP:

  PM....... 0100
  GPR0..... 00000000_20117440  GPR1..... 00000000_201172E0  GPR2..... 00000000_20117340  GPR3..... 00000000_00007C32
  GPR4..... 00000000_201172F0  GPR5..... 00000000_00007D60  GPR6..... 00000000_00007F0C  GPR7..... 00000000_00007438
  GPR8..... 00000000_00000030  GPR9..... 00000000_80000000  GPR10.... 00000000_874868BA  GPR11.... 00000000_87695B30
  GPR12.... 00000000_20111BD0  GPR13.... 00000000_20117248  GPR14.... ********_80007CF8  GPR15.... 7FFAEA00_876E13B0
  FPR0..... 26100000  00000000            FPR2..... 18000000  00000000
  FPR4..... 00000000  00000000            FPR6..... 00000000  00000000
    GPREG STORAGE:
      Storage around GPR0 (20117440)
        -0020 20117420  40404040 40404040 40404040 40404040  40404040 40404040 40404040 40404000  |                               .|
        +0000 20117440  00000000 00000000 00000000 00000000  C7C5E3E2 00000001 00000002 CBCADC19  |................GETS............|
        +0020 20117460  4C591680 00000000 00000002 00000000  00000000 20117340 00000000 00000000  |<...................... ........|
      Storage around GPR1 (201172E0)
        -0020 201172C0  00000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  |................................|
        +0000 201172E0  201172F0 20117340 20117440 00000000  C3D3D6C3 D2C340C3 C5C5C4E4 D4D74060  |...0... ... ....CLOCKC CEEDUMP -|
        +0020 20117300  40A2A396 99818785 40608489 81879596  89A2A389 83A24000 00000000 00000000  | storage -diagnoistics .........|
      Storage around GPR2 (20117340)
        -0020 20117320  00000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  |................................|
        +0000 20117340  E3C8D9C5 C1C44DC3 E4D9D9C5 D5E35D40  E3D9C1C3 C5C2C1C3 D240C6C9 D3C5E240  |THREAD(CURRENT) TRACEBACK FILES |
        +0020 20117360  40404040 40404040 40404040 40404040  40404040 40404040 40404040 40404040  |                                |
      Storage around GPR3 (00007C32)
        -0020 00007C12  05EF0000 000007F3 90E6D00C 58E0D04C  4100E248 5500C314 4130F03A 4720F014  |.......3.W.....<..S...C...0...0.|
        +0000 00007C32  58F0C280 90F0E048 9210E000 50D0E004  18DEC050 0000008E D227D0A8 50259200  |.0B..0..k...&......&....K..y&.k.|
        +0020 00007C52  D0D0D226 D0D1D0D0 41200001 5020D220  4110D0F8 5010D22C 92401000 D2FD1001  |..K..J......&.K....8&.K.k ..K...|
      Storage around GPR4 (201172F0)
        -0020 201172D0  00000000 00000000 00000000 00000000  201172F0 20117340 20117440 00000000  |...................0... ... ....|
        +0000 201172F0  C3D3D6C3 D2C340C3 C5C5C4E4 D4D74060  40A2A396 99818785 40608489 81879596  |CLOCKC CEEDUMP - storage -diagno|
        +0020 20117310  89A2A389 83A24000 00000000 00000000  00000000 00000000 00000000 00000000  |istics .........................|
      Storage around GPR5 (00007D60)
        -0020 00007D40  180D58D0 D00458E0 D00C9826 D01C051E  07070000 00007B60 00007178 00007458  |.........q...........#-........|
        +0000 00007D60  E3C8D9C5 C1C44DC3 E4D9D9C5 D5E35D40  E3D9C1C3 C5C2C1C3 D240C6C9 D3C5E200  |THREAD(CURRENT) TRACEBACK FILES.|
        +0020 00007D80  C7C5E3E2 00C3D3D6 C3D2C340 C3C5C5C4  E4D4D740 6040A2A3 96998187 85406084  |GETS.CLOCKC CEEDUMP - storage -d|
      Storage around GPR6 (00007F0C)
        -0020 00007EEC  00007408 00007218 00000000 00000000  00000000 00000000 00000000 01000001  |................................|
        +0000 00007F0C  00007BF8 00007430 00000000 00000000  00007E60 C9C5E6C2 D3C9E340 000000E0  |..#8.............=-IEWBLIT ....|
        +0020 00007F2C  01000000 00000040 00000020 00000005  00000000 00000000 00000000 9C193F1C  |....... .......................|
      Storage around GPR7 (00007438)
        -0020 00007418  00000000 00007610 00000000 000075A0  00007F20 00000000 00007F0C 00000008  |..................".......".....|
        +0000 00007438  01000000 00007F0C 00007E78 00007408  00000003 00000000 00000000 00000000  |......"...=.....................|
        +0020 00007458  58F0C2B8 58F0F020 07FF0700 47000000  47FF0001 00000000 E2F0F0F3 00E40101  |.0B..00.................S003.U..|
      Storage around GPR8 (00000030)
        -0020 00000010    Inaccessible storage.
        +0000 00000030    Inaccessible storage.
        +0020 00000050    Inaccessible storage.
```

```
      Storage around GPR9 (00000000)
        +0000 00000000    Inaccessible storage.
        +0020 00000020    Inaccessible storage.
        +0040 00000040    Inaccessible storage.
      Storage around GPR10(074868BA)
        -0020 0748689A  866D8840 00000300 2203FFFA 19080000  0000FFFF E07C0000 00006200 000005A0  |f_h .................@..........|
        +0000 074868BA  90ECD00C 41F0A00C 50F0D010 47F0F042  14CEB010 074868E4 00000000 00000118  |.....0..&0...00........U........|
        +0020 074868DA  0008C5C4 C3E9D4C9 D5E50300 33000742  81A80000 00000748 68F4F2F0 F1F1F0F3  |..EDCZMINV......ay.......4201103|
1CEE3DMP V1 R13.0: CLOCKC CEEDUMP - storage -diagnoistics
```