BIM-EDIT

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BIM-EDIT Overview

⌘ Comprehensive source statement editor

- access from VTAM and/or CICS for VSE/ESA
- executes in it's own partition
- has it's own library structure
- full screen format
- multiple concurrent sessions
- can list, display and edit BIM-EDIT and VSE/ESA libraries and members
- provides list access to ICCF libraries

BIM-EDIT Overview (continued)

- provides a number of VSE/ESA system functions
- has it own procedure language
- can execute REXX procedures
- complete source member change control
- complete auditing facility
- customizable compile, assemble and submit
- has its own inter-user mail
- library and member scan facilities

Narrative:

⌘ *Lets look at the information needed to define BIM-EDIT to VTAM and CICS.*

Access from VTAM and/or CICS for VSE/ESA

⌘Defining BIM-EDIT as a VTAM APPLID
- BIMEDIT APPL AUTH=ACQ,DSESLIM=4
  - LOGON APPLID(BIMEDIT)

⌘Defining BIM-EDIT to CICS
- PROGRAM(BIMCSCL) LANGUAGE(ASSEMBLER)
- PROGRAM(BIMCSDT) LANGUAGE(ASSEMBLER) RES(YES)
- TRANSID(EDTR) PROGRAM(BIMCSCL) SCRNSZE(ALTERNATE)
  - EDTR

Executes in it's own partition

⌘Executes in a VSE/ESA static or dynamic partition

⌘Minimum recommended partition size is 2M

⌘Buffers managed in VSE/ESA GETVIS area

⌘Buffers are controlled by setting Memory Map (MMP) variables

Library Structure

⌘BDAM file

⌂File Records

⊠Library

- Contains information that defines a library

⊠User

- Contains information specific to a user

⊠Security

- Contains information which allows user access to resources

⊠Member

- Contains information about a specific member

Narrative:

⌘ *We will now look at each record type to see some of the information contained in each type.*

Library Structure

⌘Library record

☒LIBRARY	:	$SYS.DOC
☒TITLE	:	SYSTEM DOCUMENTATION
☒USER	:	$SYS
☒DATE/TIME CREATED	:	08/29/1984 00:00:00
☒DATE/TIME UPDATED	:	00/00/0000 00:00:00

Library Structure

⌘User record

☒USER	:	GOP
☒NAME	:	GALE O. PETERSON
☒PASSWORD	:	*****
☒LOG LIMIT	:	500
☒MAIL LIMIT	:	500
☒SIZE LIMIT	:	200000
☒COMMAND SECURITY	:	ADM

- USER, EXTU, OPER, ADM

☒POWER SECURITY	:	3
☒MAX GROUPS	:	0
☒MAX SESSIONS	:	0

Library Structure

⌘Security record
- ☒LIBRARY   : GOP
- ☒USER   : RTD
- ☒SECURITY LEVEL   : NULL
  - (NULL, EXEC, LIST, EDIT, DEF, DEFL, DEFS)
- ☒DATE/TIME CREATED : 04/09/2003 11:21:09
- ☒DATE/TIME UPDATED : 00/00/0000 00:00:00

Library Structure

⌘Member record
- ☒MEMBER   : BIM.BIMAPCB
- ☒TITLE   : SAMPLE APPL INTERFACE
- ☒TYPE   : COBOL
- ☒ATTR   : BAT
- ☒USER   : PG
- ☒CASE   : U
- ☒ZONE   : 1-72
- ☒SEQ NUMBER COL   :
- ☒FIND COLUMN   : 8
- ☒AUDIT STATUS   : ON
- ☒CURRENT PASSWORD :
- ☒LOCK OPTION   :

Narrative:

⌘ *The full screen format of BIM-EDIT has the following meaning. The term LCA refers to the "Line Control Area" which is used by line oriented commands.*

Full Screen Format

```
P>  COMMAND LINE
MESSAGE AREA                                  SESS=A 1( 1) LINE=     1(    40)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
                                                              *===*
                                                              *===*
                                                              *===*
                                                              *===*
                                                              *===*
                                                              *===*
                                                              *===*
                                                              *===*
                                                              *===*
                    TEXT AREA                                 *===*  LCA
                                                              *===*
                                                              *===*
                                                              *===*
                                                              *===*
                                                              *===*
                                                              *===*
                                                              *===*
                                                              *===*
```

Narrative:

⌘ *BIM-EDIT can have up to nine groups with a total of 99 sessions. Groups are identified as an alpha character "A" to "I" and the current session followed by the current number of sessions for the group in parenthesis. The information is displayed on line 2 or the "message area". There are three types of sessions, display, list and edit.*

Multiple Sessions

⌘edit bim.autostrt

```
P>
edit  bim.autostrt                          SESS=A 1( 1) LINE=    0(   36)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF MEMBER --                                              *===*
     ID DIVISION.                                               *===*
     PROGRAM-ID. AUTOSTRT.                                      *===*
     REMARKS.                                                   *===*
     ENVIRONMENT DIVISION.                                      *===*
     DATA DIVISION.                                             *===*
                                                                *===*
     WORKING-STORAGE SECTION.                                   *===*
     01  MISC-WORKING-STORAGE.                                  *===*
         05  WS-LENGTH          PIC S9999 COMP SYNC VALUE +0.   *===*
         05  WS-COUNT           PIC 9999.                       *===*
     *       MAX NUMBER OF STARTS TO ISSUE                      *===*
         05  WS-LIMIT           PIC 9999 VALUE 0008.            *===*
                                                                *===*
     PROCEDURE DIVISION.                                        *===*
                                                                *===*
         MOVE +4   TO WS-LENGTH.                                *===*
```

Multiple Sessions

⌘list bim.batchsub-data

```
P>
list  bim.batchsub-data                    SESS=A 2( 2) LINE=    0(    17)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF MEMBER --                                        *===*
* $$ JOB JNM=BIMBXXXT,CLASS=0,DISP=H                       *===*
* $$ LST CLASS=Q,DISP=H                                    *===*
// JOB BIMBXXXT                                            *===*
// LIBDEF PHASE,SEARCH=BIMLIB.T                            *===*
// EXEC DITTO                                              *===*
A                                                          *===*
AB                                                         *===*
ABC                                                        *===*
ABCD                                                       *===*
ABCDE                                                      *===*
ABCDEF                                                     *===*
ABCDEFG                                                    *===*
ABCDEFGH                                                   *===*
                                                           *===*
/*                                                         *===*
/&                                                         *===*
```

Multiple Sessions

⌘LISTP LST,BIMTSED

```
P>
LISTP LST,BIMTSED                          SESS=A 3( 3) LINE=   50(  1404)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7----|----8
                                           External Symbol Dictionary
Symbol   Type   Id     Address  Length     LD ID  Flags Alias-of
         PC 00000001 00000000 00000000            00
BIMTSED  SD 00000002 00000000 00002330            00


  Active Usings: None
  Loc  Object Code    Addr1 Addr2  Stmt   Source Statement
                                     1         PRINT OFF
                                   365         PRINT ON
            R:3  00000              366         USING PSCB,PSBREG
                                   367 ********
                                   368 * SIMULATED EXPANSION OF THE FOLLOWING M
                                   369 *PSCB     IKJPSCB ,
                                   370 * FIELDS NOT REFERENCED WERE DELETED.
                                   371 ********
                                   372 * THE PROTECTED STEP CONTROL BLOCK IS CO
```

Narrative:

⌘ *Terminals defined as 3270 model 5 can view information up to 132 characters wide.*

Multiple Sessions

⌘screen alt

```
P>
LISTP LST,BIMTSED,95                      SESS=A 3( 3) LINE=    50( 1404)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7----|----8----|----9----|---10----|---11----|---12----|---13--
                                    External Symbol Dictionary                              Page    2
Symbol   Type   Id    Address Length    LD ID  Flags Alias-of              HLASM R4.0  2002/08/15 13.51
            PC 00000001 00000000 00000000              00
BIMTSED   SD 00000002 00000000 00002330              00

                                                                                 Page    3
   Active Usings: None
   Loc  Object Code  Addr1 Addr2 Stmt   Source Statement                   HLASM R4.0  2002/08/15 13.51
                                  1           PRINT OFF
                                365         PRINT ON
                R:3  00000       366         USING PSCB,PSBREG
                                367 ********
                                368 * SIMULATED EXPANSION OF THE FOLLOWING MVS MACRO:
                                369 *PSCB     IKJPSCB ,
                                370 * FIELDS NOT REFERENCED WERE DELETED.
                                371 *********
                                372 * THE PROTECTED STEP CONTROL BLOCK IS CONSTRUCTED BY LOGON AND
                                373 * FILLED IN FROM THE UADS. ...
000000           00000 00008  374 PSCB     DSECT
000000                         375 PSCBUSER DS    CL7      USERID PADDED RIGHT WITH BLANKS
000007                         376 PSCBUSRL DS    CL1      LENGTH OF USERID
                                377 *********
                 00003         378 PSBREG   EQU   3
                 00004         379 IJBREG   EQU   4
```

Narrative:

⌘ *Sessions can be view like nodes on the ring of a circle. Rotating forward or backward will display the next or previous session respectively. A valid session number can be entered following the ROTATE command to take you directly to that session.*

Multiple Sessions

⌘rotate

```
P>
EDIT  BIM.AUTOSTRT                        SESS=A 1( 3) LINE=    0(    36)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF MEMBER --                                          *===*
      ID DIVISION.                                           *===*
      PROGRAM-ID. AUTOSTRT.                                  *===*
      REMARKS.                                               *===*
      ENVIRONMENT DIVISION.                                  *===*
      DATA DIVISION.                                         *===*
                                                             *===*
      WORKING-STORAGE SECTION.                               *===*
      01  MISC-WORKING-STORAGE.                              *===*
          05  WS-LENGTH           PIC S9999 COMP SYNC VALUE +0.   *===*
          05  WS-COUNT            PIC 9999.                  *===*
      *       MAX NUMBER OF STARTS TO ISSUE                  *===*
          05  WS-LIMIT            PIC 9999 VALUE 0008.       *===*
                                                             *===*
      PROCEDURE DIVISION.                                    *===*
                                                             *===*
          MOVE +4    TO WS-LENGTH.                           *===*
```

Multiple Sessions

⌘rotate - (or rotate 3)

```
P>
LISTP LST,BIMTSED,95                        SESS=A 3( 3) LINE=   50( 1404)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7----|----8----|----9----|---10----|---11----|---12----|---13--
                                      External Symbol Dictionary                          Page    2
Symbol   Type  Id    Address Length    LD ID  Flags Alias-of              HLASM R4.0  2002/08/15 13.51
          PC 00000001 00000000 00000000           00
BIMTSED   SD 00000002 00000000 00002330           00

                                                                                          Page    3
  Active Usings: None
  Loc   Object Code    Addr1 Addr2  Stmt   Source Statement                HLASM R4.0  2002/08/15 13.51
                                     1          PRINT OFF
                                    365         PRINT ON
          R:3  00000               366          USING PSCB,PSBREG
                                    367 ********
                                    368 * SIMULATED EXPANSION OF THE FOLLOWING MVS MACRO:
                                    369 *PSCB      IKJPSCB ,
                                    370 * FIELDS NOT REFERENCED WERE DELETED.
                                    371 *********
                                    372 * THE PROTECTED STEP CONTROL BLOCK IS CONSTRUCTED BY LOGON AND
                                    373 * FILLED IN FROM THE UADS.  ...
  000000          00000 00008     374 PSCB      DSECT
  000000                          375 PSCBUSER DS     CL7      USERID PADDED RIGHT WITH BLANKS
  000007                          376 PSCBUSRL DS     CL1      LENGTH OF USERID
                                    377 *********
                  00003           378 PSBREG    EQU   3
                  00004           379 IJBREG    EQU   4
```

Narrative:

⌘ *Lets look at the difference between list, display and edit sessions and how each can be created from either the "command line" or the "LCA".*

List, Display and Edit BIM-EDIT and VSE/ESA libraries

⌘ LIST members
- ▱ Member display cannot be changed

⌘ DISPLAY members
- ▱ Member display is updatable
- ▱ Changes to member will not be saved

⌘ EDIT members
- ▱ Member display is updatable
- ▱ Changes to member will be saved

Narrative:

⌘ *The following is a library directory display for a BIM-EDIT library. The library names are displayed alphabetical order.*

List directory for BIM-EDIT library members

⌘LIB

```
P>
DISP  -> LIB                               SESS=A 1( 1) LINE=    1(  1861)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
LIBRARY=BIM                                                      *===*
----------------------------------------------------------------  *===*
     MEMBER        TYPE              TITLE                        *===*
---------------- -------- ----------------------------------------  *===*
AUDITRPT         DATA      TEST DATA FOR AUDSUM                    *===*
AUTOSTRT         COBOL     COMMAND LEVEL START PROG REQUIRING PRINT *===*
BACKICCF         JCL       RESTORE ICCF                            *===*
BACKNOTE         DATA      BIM BACKUP PROCEDURES NOTE              *===*
BACKSTST         JCL       SELECTIVE BACKUP OF BIMEDITT (TEST)     *===*
BACKUPG          JCL       TEST BACKUPG TAPE OPTIONS               *===*
BACKUPP          JCL       TEST BACKUPP TAPE OPTIONS               *===*
BACKUPS          JCL       TEST BACKUPS TAPE OPTIONS               *===*
BATCHSUB         ASM       BIMSUBMT BATCH SUB (SINGLE BUFF)        *===*
BATCHSUB-DATA    COBOL     BIMSUBMT BATCH SUB INPUT DATA           *===*
BATCHSUB-EXEC    JCL       BIMSUBMT BATCH SUB JCL                  *===*
BIAPMTC6         JCL       BIM-EDIT TECHNICAL PROMO 4 UPDATE       *===*
BIAWISH          TEXT      BIM-EDIT CHANGE/ENHANCEMENT REQUESTS    *===*
```

Narrative:

⌘ *The next slide shows the use of the LCA to create a display session of member BACKUPS.*

LCA Command to Display a BIM-EDIT library member

⌘Enter an "t" in the LCA for BACKUPS

```
P>
DISP  -> LIB                              SESS=A 1( 1) LINE=    1( 1861)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
LIBRARY=BIM                                                       *===*
----------------------------------------------------------------  *===*
     MEMBER       TYPE              TITLE                          *===*
---------------- -------- ---------------------------------------  *===*
AUDITRPT         DATA     TEST DATA FOR AUDSUM                     *===*
AUTOSTRT         COBOL    COMMAND LEVEL START PROG REQUIRING PRINT  *===*
BACKICCF         JCL      RESTORE ICCF                             *===*
BACKNOTE         DATA     BIM BACKUP PROCEDURES NOTE               *===*
BACKSTST         JCL      SELECTIVE BACKUP OF BIMEDITT (TEST)      *===*
BACKUPG          JCL      TEST BACKUPG TAPE OPTIONS                *===*
BACKUPP          JCL      TEST BACKUPP TAPE OPTIONS                *===*
BACKUPS          JCL      TEST BACKUPS TAPE OPTIONS                t===*
BATCHSUB         ASM      BIMSUBMT BATCH SUB (SINGLE BUFF)         *===*
BATCHSUB-DATA    COBOL    BIMSUBMT BATCH SUB INPUT DATA            *===*
BATCHSUB-EXEC    JCL      BIMSUBMT BATCH SUB JCL                   *===*
BIAPMTC6         JCL      BIM-EDIT TECHNICAL PROMO 4 UPDATE        *===*
BIAWISH          TEXT     BIM-EDIT CHANGE/ENHANCEMENT REQUESTS     *===*
```

Display a BIM-EDIT library member

⌘BIM-EDIT Display Session

```
P>
DISP  BIM.BACKUPS                         SESS=A 2( 2) LINE=    0(   17)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF DISPLAY --                                              *===*
* $$ JOB JNM=BACKUPS,CLASS=0,DISP=D                               *===*
// JOB BACKUPS                                                    *===*
// TLBL BIFLOG                                                    *===*
// ASSGN SYS005,582                                               *===*
// MTC REW,SYS005                                                 *===*
// LIBDEF PHASE,SEARCH=(BIMLIB.ED56BD)                            *===*
// EXEC BIMUTIL,PARM='SYSTEM=BIMEDIT'                             *===*
LOGON $BKP,$BKP                                                   *===*
BACKUPS LABEL=YES OPEN=REWIND CLOSE=REWIND                        *===*
 LIBRARY  $SYS.PROC                                               *===*
 MEMBER   $SYS.PROC.*                                             *===*
++/*                                                              *===*
/*                                                                *===*
/&                                                                *===*
* $$ EOJ                                                          *===*
-- END OF DISPLAY --
```

Narrative:

⌘ *The following is a display of a VSE/ESA library.*

List directory for VSE/ESA library members

⌘LIBD IJSYSRS.SYSLIB.*.*

```
5>
DISP  -> LIBD IJSYSRS.SYSLIB.*.*                SESS=A 4( 4) LINE=    0(  2755)
      ----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
*===* -- TOP OF DISPLAY --
*===* DIRECTORY DISPLAY    SUBLIBRARY=IJSYSRS.SYSLIB      DATE: 2004-03-24
*===*                                                     TIME: 19:27
*===* ------------------------------------------------------------------
*===*  M E M B E R      CREATION   LAST     BYTES    LIBR CONT SVA  A- R-
*===* NAME      TYPE    DATE       UPDATE   RECORDS  BLKS STOR ELIG MODE
*===* ------------------------------------------------------------------
*===* APPLID    A       02-09-14    - -       163 R      8 YES  -   -   -
*===* BSSTIXE   A       02-09-14    - -       102 R      5 YES  -   -   -
*===* CATALMEM  A       04-01-26 04-01-28      4 R      1 YES  -   -   -
*===* CICS      A       02-09-14    - -       234 R     11 YES  -   -   -
*===* COMMON    A       02-09-14    - -       595 R     26 YES  -   -   -
*===* DEVTYPE   A       02-09-14    - -        23 R      1 YES  -   -   -
*===* DFHDCTC2  A       02-09-14    - -       102 R      7 YES  -   -   -
*===* DFHDCTSP  A       02-09-14    - -       116 R      8 YES  -   -   -
*===* DFHDMFSP  A       02-09-14    - -        21 R      2 YES  -   -   -
*===* DFHFCTC2  A       02-09-14    - -        35 R      3 YES  -   -   -
```

Narrative:

⌘ *The next slide shows the use of the LCA to create a display session of the VSE/ESA member APPLID.*

LCA Command to Edit a VSE/ESA library member

⌘Enter an "e" in the LCA for APPLID

```
5>
DISP  -> LIBD IJSYSRS.SYSLIB.*.*              SESS=A 4( 4) LINE=    0(  2755)
     ----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
*===* -- TOP OF DISPLAY --
*===* DIRECTORY DISPLAY    SUBLIBRARY=IJSYSRS.SYSLIB      DATE: 2004-03-24
*===*                                                     TIME: 19:27
*===* -----------------------------------------------------------------
*===*  M E M B E R       CREATION    LAST     BYTES    LIBR CONT SVA  A- R-
*===* NAME     TYPE      DATE      UPDATE   RECORDS   BLKS STOR ELIG MODE
*===* -----------------------------------------------------------------
e===* APPLID   A         02-09-14   -  -       163 R       8 YES  -   -   -
*===* BSSTIXE  A         02-09-14   -  -       102 R       5 YES  -   -   -
*===* CATALMEM A         04-01-26 04-01-28       4 R       1 YES  -   -   -
*===* CICS     A         02-09-14   -  -       234 R      11 YES  -   -   -
*===* COMMON   A         02-09-14   -  -       595 R      26 YES  -   -   -
*===* DEVTYPE  A         02-09-14   -  -        23 R       1 YES  -   -   -
*===* DFHDCTC2 A         02-09-14   -  -       102 R       7 YES  -   -   -
*===* DFHDCTSP A         02-09-14   -  -       116 R       8 YES  -   -   -
*===* DFHDMFSP A         02-09-14   -  -        21 R       2 YES  -   -   -
*===* DFHFCTC2 A         02-09-14   -  -        35 R       3 YES  -   -   -
```

Edit a VSE/ESA member

⌘BIM-EDIT Edit Session

```
5>
EDITD IJSYSRS.SYSLIB.APPLID.A                 SESS=A 5( 5) LINE=    0(  165)
      ----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
*===* -- TOP OF MEMBER --
*===*  BKEND
*===*        MACRO
*===*        APPLID &APPL=
*===*        GBLA  &COMM                NUMBER OF COMMON MACRO CALL
*===*        GBLA  &APPLID              NUMBER OF APPLID MACRO CALL
*===*        GBLA  &NODE                NUMBER OF NODECHAR MACRO CALL
*===*        GBLA  &SAL                 LENGTH OF SUBAREA NUMBER
*===*        GBLA  &SAP                 POSITION OF SUBAREA NUMBER
*===*        GBLC  &SERVNO              SUBAREA NUMBER OF SERVICE NODE
*===*        GBLA  &NAPPL               TOT. NUM. OF APPL SPEC.
*===*        GBLA  &NCICS               NUM. OF CICS SPECIFICATIONS
*===*        LCLA  &NAP                 NUM. OF APPL SPEC. IN THIS CALL
*===*        LCLA  &I                   .
*===*        LCLA  &K                   . LOOP COUNTERS
*===*        LCLA  &L                   .
*===*        LCLA  &VLEN                KEYWORD VALUE LENGTH
```

Narrative:

⌘ *The following slides shows how to do a library display of an ICCF library, list an ICCF member and get an ICCF member into BIM-EDIT.*

ICCF Library Access

⌘LIBRARYI - Display ICCF library directory

⌂libi 2

```
P>
DISP  -> libi    2                          SESS=B 6( 8) LINE=    0(   231)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF DISPLAY --                                        *===*
LIB=   2                                                    *===*
-------------                                               *===*
 MEMBER  USER                                               *===*
-------- ----                                               *===*
A$HELP   AAAA                                               *===*
A$MAIL   AAAA                                               *===*
ASSEMBLE AAAA                                               *===*
C$$ASBAT AAAA                                               *===*
C$$ASMAP AAAA                                               *===*
C$$ASONL AAAA                                               *===*
C$$ASSUB AAAA                                               *===*
C$$CCBAT AAAA                                               *===*
C$$CCMAP AAAA                                               *===*
C$$CCONL AAAA                                               *===*
```

ICCF Library Access

⌘LISTI - List ICCF library member

⌂lii 2 a$help

```
P>
LISTI  2 A$HELP                             SESS=B 7( 9) LINE=    0(    13)
 ----|----1----|----2----|----3----|----4----|----5----|----6----|----7-
-- TOP OF DISPLAY --                                        *===*
.* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *===*
.*                                                        * *===*
.*  For help information, enter                           * *===*
.*                  'HELP commandname'                    * *===*
.*                  ==================                    * *===*
.*                                                        * *===*
.*    If 'commandname' is omitted or invalid, a menu is displayed * *===*
.*    which shows  all  commands  supported by  the  help facility. * *===*
.*    If you enter 'EDITOR', 'MACRO', 'PROC', or 'JES' as command- * *===*
.*    name, that portion of the menu will be displayed which shows * *===*
.*    the desired subset of ICCF commands.                 * *===*
.*                                                        * *===*
.* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *===*
-- END OF DISPLAY --
```

ICCF Library Access

⌘LOADI - Load ICCF member to BIM-EDIT

⌂loadi 2 a$help (def mem;ed;geti 2 a$help)

```
P>
EDIT  BIM.A$HELP                          SESS=B 5( 6) LINE=    0(    13)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF MEMBER --                                        *===*
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *  *===*
*                                                         *  *===*
*  For help information, enter                            *  *===*
*                     'HELP commandname'                  *  *===*
*                     ==================                  *  *===*
*                                                         *  *===*
*    If 'commandname' is omitted or invalid, a menu is displayed *  *===*
*    which shows  all  commands  supported by  the  help facility. *  *===*
*    If you enter 'EDITOR', 'MACRO', 'PROC', or 'JES' as command- *  *===*
*    name, that portion of the menu will be displayed which shows *  *===*
*    the desired subset of ICCF commands.                 *  *===*
*                                                         *  *===*
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *  *===*
-- END OF MEMBER --
```

Narrative:

⌘*A number of VSE/ESA system functions are provided by BIM-EDIT. Note that the LCA or command line can be used to access information associated with these functions.*

System Functions

⌘VTOC Display

```
P>
DISP  -> vtoc                                 SESS=B 6( 7) LINE=    0(   13)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF DISPLAY --                                                *===*
VOLID  CUU DEVICE TYPE    TRKS-BLKS  CYLS TRK/CYL TRK SIZE MAX REC SYSNNN *===*
------ --- ------------- --------- ----- ------- -------- ------- ------ *===*
VSESHR 311 3390-0AS ECKD    50085  3339    15     58786    56664 SYS041 *===*
DSK315 315 3390-0A  ECKD    50085  3339    15     58786    56664 SYS001 *===*
DSK316 316 3390-0A  ECKD    50085  3339    15     58786    56664 SYS046 *===*
DSK317 317 3390-0A  ECKD    50085  3339    15     58786    56664 SYS047 *===*
DSK318 318 3390-02  ECKD    16695  1113    15     58786    56664 SYS048 *===*
DSK340 340 3390-0C  ECKD   150255 10017    15     58786    56664 SYS040 *===*
DSK50B 50B 9345-04  ECKD    32340  2156    15     48280    46456 SYS098 *===*
DSK50C 50C 9345-04  ECKD    32340  2156    15     48280    46456 SYS097 *===*
DSK50D 50D 9345-04  ECKD    32340  2156    15     48280    46456 SYS096 *===*
DSK50E 50E 9345-04  ECKD    32340  2156    15     48280    46456 SYS095 *===*
DSK50F 50F 9345-04  ECKD    32340  2156    15     48280    46456 SYS094 *===*
-- END OF DISPLAY --
```

System Functions

⌘Enter an "I" in the LCA for DSK316

```
P>
DISP  -> vtoc                                 SESS=B 6( 7) LINE=    0(   13)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF DISPLAY --                                                *===*
VOLID  CUU DEVICE TYPE    TRKS-BLKS  CYLS TRK/CYL TRK SIZE MAX REC SYSNNN *===*
------ --- ------------- --------- ----- ------- -------- ------- ------ *===*
VSESHR 311 3390-0AS ECKD    50085  3339    15     58786    56664 SYS041 *===*
DSK315 315 3390-0A  ECKD    50085  3339    15     58786    56664 SYS001 *===*
DSK316 316 3390-0A  ECKD    50085  3339    15     58786    56664 SYS046 l===*
DSK317 317 3390-0A  ECKD    50085  3339    15     58786    56664 SYS047 *===*
DSK318 318 3390-02  ECKD    16695  1113    15     58786    56664 SYS048 *===*
DSK340 340 3390-0C  ECKD   150255 10017    15     58786    56664 SYS040 *===*
DSK50B 50B 9345-04  ECKD    32340  2156    15     48280    46456 SYS098 *===*
DSK50C 50C 9345-04  ECKD    32340  2156    15     48280    46456 SYS097 *===*
DSK50D 50D 9345-04  ECKD    32340  2156    15     48280    46456 SYS096 *===*
DSK50E 50E 9345-04  ECKD    32340  2156    15     48280    46456 SYS095 *===*
DSK50F 50F 9345-04  ECKD    32340  2156    15     48280    46456 SYS094 *===*
-- END OF DISPLAY --
```

System Functions

⌘Display Session for DSK316

```
P>
DISP  -> VTOC    DSK316                      SESS=B 7( 8) LINE=    0(   24)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7----|----
-- TOP OF DISPLAY --
VTOC DISPLAY FOR VOLUME: DSK316               DATE: 06/25/2003  TIME: 16:04:52
                  TYPE: 3390-0A  ECKD        XT NBR. OF   FILE -- STARTING ---
FILE ID                                       SQ  TRACKS  TYPE CCCC.HH   TRACK
------------------------------------------- -- ------- ---- --------------
   *** VOL1 AND IPL ***                         1 SYST   0.00       0
VSE.ESA.NEWRES                               1364 *UNDF   0.01       1
   *** FREE SPACE ***                         135         91.00    1365
Z9999996.VSAMDSPC.TB5C44C7.T0350B60           150  VSAM 100.00    1500
Z9999992.VSAMDSPC.TB5C44E9.TEF9D0F5          6000  VSAM 110.00    1650
BIMEDITT.CKDTEST.BIFLIB.56B+                 7500  DAM  510.00    7650
BIMEDITT.GOPTEST.BIFLIB.56B+                 7500  DAM 1010.00   15150
   *** FREE SPACE ***                       10005       1510.00   22650
TEST.DIGNUS.OUT.FILE                           15 *SAM 2177.00   32655
GOP.VSE.ESA.NONSHARED.LIBRARY                4565  UNDF 2178.00   32670
SYS.WORK.TWO                                 2000 *UNDF 2482.05   37235
SYS.WORK.THREE                               2000 *UNDF 2615.10   39235
```

System Functions

⌘LISTCAT

```
P>
DISP  -> LISTCAT                             SESS=A 4( 5) LINE=    0(  194)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF DISPLAY --                                               *===*
LISTCAT OF CATALOG: VSAM.MASTER.CATALOG                            *===*
NAME                                         TYPE    #XTNT #RECORDS FREE *===*
------------------------------------------- ------- ----- -------- ---- *===*
CICS.PROD.CSD                                KSDS     1      652   51 *===*
CICS.TEST.CSD                                KSDS     1     1266   38 *===*
CICSPROD.CSD23                               KSDS     3     1532    4 *===*
CICSPROD.DFHNTRA                             ESDS     1        0    3 *===*
CICSPROD.DFHTEMP                             ESDS     1        0   49 *===*
CICSPROD.JMSTR.CNTL                          KSDS     1        3    4 *===*
CICSPROD.RSD                                 KSDS    10   151628    4 *===*
CICSTEST.CSD23                               KSDS     2     2391      *===*
CICSTEST.DFHNTRA                             ESDS     1        0    2 *===*
CICSTEST.DFHTEMP                             ESDS     1        0   49 *===*
CICSTEST.RSD                                 KSDS    20   191736      *===*
CITSTEST.CSD                                 KSDS     2     3357      *===*
CITSTEST.DFHNTRA                             ESDS     1        0    2 *===*
```

System Functions

⌘Enter an "I" in the LCA for CICSPROD.RSD

```
P>
DISP  -> LISTCAT                        SESS=A 4( 5) LINE=    0(   194)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF DISPLAY --                                        *===*
LISTCAT OF CATALOG: VSAM.MASTER.CATALOG                     *===*
NAME                                    TYPE    #XTNT #RECORDS FREE *===*
-------------------------------------   ------- ----- -------- ---- *===*
CICS.PROD.CSD                           KSDS       1     652    51 *===*
CICS.TEST.CSD                           KSDS       1    1266    38 *===*
CICSPROD.CSD23                          KSDS       3    1532     4 *===*
CICSPROD.DFHNTRA                        ESDS       1       0     3 *===*
CICSPROD.DFHTEMP                        ESDS       1       0    49 *===*
CICSPROD.JMSTR.CNTL                     KSDS       1       3     4 *===*
CICSPROD.RSD                            KSDS      10  151628     4 1===*
CICSTEST.CSD23                          KSDS       2    2391       *===*
CICSTEST.DFHNTRA                        ESDS       1       0     2 *===*
CICSTEST.DFHTEMP                        ESDS       1       0    49 *===*
CICSTEST.RSD                            KSDS      20  191736       *===*
```

System Functions

⌘Display Session for VSAM Cluster

```
P>
DISP  -> LISTCAT  CICSTEST.RSD              SESS=A 5( 6) LINE=    0(   103)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7----|----
-- TOP OF DISPLAY --
CLUSTER ----CICSTEST.RSD
 HISTORY
  OWNER-ID----(NULL) CREATED---1991.020 EXPIRES---0000.000
  ASSOCIATIONS
   DATA -----CICSTEST.RSD.DATA
   INDEX ----CICSTEST.RSD.INDEX
   CATALOG --VSAM.MASTER.CATALOG

DATA -------CICSTEST.RSD.DATA
 HISTORY
  OWNER-ID----(NULL) CREATED---1991.020 EXPIRES---0000.000
  ASSOCIATIONS
   CLUSTER---CICSTEST.RSD
   CATALOG --VSAM.MASTER.CATALOG
  ATTRIBUTES
   KEYLEN---------022 AVGLRECL--00000400 BUFSPACE--00004608 CISIZE-------02048
```

System Functions

⌘VSE/ESA SYSTEM CONSOLE DISPLAY

▱displayc

```
P>
DISP  -> displayc                      SESS=B 2( 3) LINE=    0(   38)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7----|----
-- TOP OF DISPLAY --
C1 0001 1Q47I   C1 LIBRGET 04610 FROM BIM(HSW) U='HSW            ',
        TIME=16:36:38
C1 0052 // JOB LIBRGET           ASSEMBLE(LIBRGET)....
        DATE 06/25/2003, CLOCK 16/36/38
G2 0083 LIBRGET
G2 0083 This is the start of job number 783 since 16 Jun 2003 07:49:54
C1 0052 EP017 EPIC SYSTEM IS ACTIVE IN THIS PARTITION
C1 0052 EP039 ALLOCATED 0028845 THRU 0029444 IJSYSLN SYSLNK=315 DSK315
C1 0052 EP039 ALLOCATED 0029445 THRU 0030044 IJSYS03 SYS003=315 DSK315
C1 0052 EP039 ALLOCATED 0029445 THRU 0030044 IJSYS03 SYS003=315 DSK315
C1 0052 0S03I PROGRAM CHECK INTERRUPTION  - HEX LOCATION 00000000 -
        INTERRUPTION CODE 01 - OPERATION EXCEPTION
C1 0052 0S00I JOB LIBRGET  CANCELED
C1 0052 0S07I PROBLEM PROGRAM  PSW = 07DD2000 00000002
```

System Functions

⌘VSE/ESA SYSTEM CONSOLE INPUT

▱CONSOLEI MAP

```
P>
DISP  -> DC                            SESS=B 3( 4) LINE=   15(   38)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7----|----
MAP
AR 0015  SPACE AREA      V-SIZE   GETVIS   V-ADDR   UNUSED NAME
AR 0015   S   SUP         840K                0            $$A$SUPX
AR 0015   S   SVA-24     2872K    2048K    D2000    384K
AR 0015   0 * BG V        900K    1148K    600000
AR 0015   0 * FB V        600K    1448K    800000
AR 0015   0 * F5 V        600K    1448K    A00000   24576K
AR 0015   2 * F4 V        600K   19880K    600000   10240K CICSPROD
AR 0015   3 * F8 V        600K    1448K    600000          BIMWNDOW
AR 0015   3 * FA V        600K     424K    800000
AR 0015   3 * F1 V        600K    8616K    900000   18432K IPWPOWER
AR 0015   4 * F6 V        600K    1448K    600000
AR 0015   4 * F2 V        600K    9640K    800000   18432K
AR 0015   5 * F3 V        600K    5544K    600000          VTAM
AR 0015   5 * F7 V        600K    5544K    C00000   18432K
```

Narrative:

⌘ *The next slide is noteworthy because it show how commands can be concatenated. Commands are separated by a semi-colon (;).*

System Functions

⌘ Display VSE/ESA System Status

    ⌂da;down 1

```
P>
DISP  -> da                                SESS=A 1( 1) LINE=    1(    25)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7----|----
                    DATE 03/29/2004  TIME 13:46:20
   RUN  --------- JOB ----------- ----------------- STEP -----------------
   CODE  JOB NAME  START   DURATION  PHASE     START   DURATION CPUTIME STARTIO
BG     NO NAME
FB
FA
F9 READY BIMEDIT  19:38:38 66:07:42 BIMEDIT  19:38:38 66:07:42  37.79  66,222
F8 WAIT  BIMWNDOW 07:01:38 06:44:42 BIMWN45H 07:01:38 06:44:42   4.66    591
F7
F6
F5     NO NAME
F4 WAIT  CICSPROD 19:38:40 66:07:41 DFHSIP   19:38:47 66:07:33 132.55  49,603
F3 WAIT  VTAM     19:38:32 66:07:48 ISTINCVT 19:38:32 66:07:48  39.16  41,784
F2     NO NAME
F1 WAIT  IPWPOWER 19:38:09 66:08:11 POWERNET 19:38:19 66:08:01 132.56  83,833
```

System Functions

⌘Display VSE/ESA Message File

⌃msg vsamresn

```
P>
DISP  -> msg vsamresn                     SESS=A 1( 1) LINE=     0(  2502)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7----|----
-- TOP OF DISPLAY --
VSAMRESN - IDCAMS RETURN AND REASON CODES

        IDCAMS Return and Reason Codes

        This section lists and explains IDCAMS return and reason codes that
        may be displayed as part of messages IDC0508I-IDC0511I, IDC3007I, or
        IDC3323I (return codes only) or IDC3009I or IDC3324I.

        These messages always display the return and reason codes in
        decimal. The return and reason codes are the result of an IDCAMS
        request to VSAM catalog management (that is, define, alter, delete,
        locate, and catalog open).

        The description recommends a programmer response, unless the reason
```

System Functions

⌘Display VSE/ESA Message File

⌃msg ep017

```
P>
DISP  -> msg ep017                        SESS=A 2( 2) LINE=     0(     8)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7----|----
-- TOP OF DISPLAY --
EP017     BIM-EPIC SYSTEM IS ACTIVE IN THIS PARTITION

        Explanation:
        The BIM-EPIC system, which until now had not been active in
        this partition, is now active.

        Action:
        None
-- END OF DISPLAY --
```

System Functions

⌘Display POWER Queue File

⌃dq

```
P>
DISP  -> dq                          SESS=A 3( 4) LINE=    0(  676)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF DISPLAY --                                           *===*
--------------------------------------------------------------- *===*
----- POWER JOB ----- P D C S  CARDS/ CPY FORM  ORIGIN/    USER INFO   *===*
QUE   NAME  NUMBER SG          PAGES           DEST                    *===*
--- -------- ----- -- - - - ------- --- ---- -------- ---------------- *===*
RDR VTAM     44526   3 * 3     10                     BM01             *===*
RDR CICSPROD 44533   3 * 4     80                     RJA              *===*
RDR BIMWNDOW 44554   3 * 8      6                     BM01-45H         *===*
RDR BIMEDIT6 44527   3 * 9      7                     PG               *===*
RDR EDITBACK 44549   3 * C     23                     BIM              *===*
RDR MOSSBACK 44551   3 * C     25                     BM01             *===*
RDR BIMTMAN  44531   3 * G     76                     BIMTMAN.PROD.JCL *===*
RDR JCLSCHED 44534   3 * G      6                                      *===*
RDR FAQXCONS 44528   3 * H      5                                      *===*
RDR CICSTEST 40099   4 * T    187                     HSW              *===*
```

System Functions

⌘Display POWER Queue File

⌃Enter an "I" in the LCA for VTAM

```
P>
DISP  -> dq                          SESS=A 3( 4) LINE=    0(  676)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF DISPLAY --                                           *===*
--------------------------------------------------------------- *===*
----- POWER JOB ----- P D C S  CARDS/ CPY FORM  ORIGIN/    USER INFO   *===*
QUE   NAME  NUMBER SG          PAGES           DEST                    *===*
--- -------- ----- -- - - - ------- --- ---- -------- ---------------- *===*
RDR VTAM     44526   3 * 3     10                     BM01             1===*
RDR CICSPROD 44533   3 * 4     80                     RJA              *===*
RDR BIMWNDOW 44554   3 * 8      6                     BM01-45H         *===*
RDR BIMEDIT6 44527   3 * 9      7                     PG               *===*
RDR EDITBACK 44549   3 * C     23                     BIM              *===*
RDR MOSSBACK 44551   3 * C     25                     BM01             *===*
RDR BIMTMAN  44531   3 * G     76                     BIMTMAN.PROD.JCL *===*
RDR JCLSCHED 44534   3 * G      6                                      *===*
RDR FAQXCONS 44528   3 * H      5                                      *===*
RDR CICSTEST 40099   4 * T    187                     HSW              *===*
```

System Functions

⌘Display POWER List File

```
P>
LISTP RDR,VTAM,44526                            SESS=A 4( 5) LINE=     0(    10)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF JOB --                                                    *===*
* $$ LST  DISP=H,CLASS=A                                            *===*
// JOB VTAM    STARTUP JOB STREAM                                   *===*
// OPTION DUMP                                                      *===*
// ASSGN SYS000,UA *NEEDED UA SO VTAM CAN ASSIGN DYNAMIC FOR SNA CTLR  *===*
// ASSGN SYS001,SYS045            *REQUIRED FOR TRFILE               *===*
// LIBDEF PHASE,SEARCH=PRD1.BASE                                    *===*
// EXEC ISTINCVT,SIZE=ISTINCVT,PARM='CUSTNO=C555-555-5555,VTAMPW=5979-4*  *===*
            015-4627-6185-9388'                                    *===*
/*                                                                  *===*
/&                                                                  *===*
-- END OF JOB --
```

Narrative:

⌘*The BIM-EDIT procedure language is very powerful. The procedure code has comments on each statement explaining what it does.*

Procedure Language

⌘ Procedure to Modify the LIBRARY command

```
P>
LIST  $SIT.PROC.LIBRARY                      SESS=A 2( 3) LINE=     0(    11)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF MEMBER --                                                *===*
SET PPDVBL,1                    ;INTERPRET &VARIABLE NAMES          *===*
DCL LIST,CHAR,70,V             ;DECLARE VARIABLE LIST               *===*
STACK ,CL                      ;CLEAR $STACK                        *===*
; The next line is inserted at the top of the modified LIBRARY display  *===*
STACKI 'LCA keys: S=submit(process) L=list E=edit Q=inquire T=Display'  *===*
BYPASS                         ;GO TO NEXT HIGHER COMMAND TABLE     *===*
LIB &PARMLIST                  ;ISSUE LIB COMMAND W/ORIGINAL PARMS  *===*
STACK *,AP                     ;APPEND CURRENT DISPLAY TO $STACK    *===*
SETD LIST,PARMLIST             ;SET LIST W/VALUE OF PARAMETER STRING *===*
QUIT                           ;QUIT THE LIB SESSION                *===*
DISPLAY $STACK 'LIB &LIST'     ;DISPLAY $STACK W/TEXT TO MSG LINE   *===*
-- END OF MEMBER --
```

Narrative:

⌘ *The next slide shows the $SIT.CTRL.COMMANDS member which is used to provide user commands or "front-end" existing BIM-EDIT commands.*

Procedure Language

⌘Site Command Table

```
5>
LIST  $SIT.CTRL.COMMANDS                    SESS=A 5( 5) LINE=     0(    19)
     ----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
*===* -- TOP OF MEMBER --
*===* INSTALL  INSTALL       BIPINST INSTALLED 09/27/2002
*===* LIBRARY  LIBRARY       FRONT END LIBRARY COMMAND
*===* SERVICE  SERVICE       BIPINST INSTALLED 09/27/2002
*===* SRV$SCNX SRV$SCNX      BIPINST INSTALLED 09/27/2002
*===* TODAY    TODAY         BIPINST INSTALLED 03/31/2003
      -- END OF MEMBER --
```

⌘ NEWCOPY COMMANDS after updating and saving site
   command table

Procedure Language

⌘Output of Modified LIBRARY command

```
P>
DISP  -> lib gop.                           SESS=A 2( 3) LINE=     0(    11)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF DISPLAY --                                          *===*
LCA keys: S=submit(process) L=list E=edit Q=inquire T=Display *===*
LIBRARY=GOP                                                   *===*
--------------------------------------------------------------   *===*
      MEMBER      TYPE              TITLE                     *===*
---------------- -------- -------------------------------------- *===*
APPLYFIX      JCL                                           *===*
BIM-TOTAL     PROC     TOTAL TXT/AUD LINES                  *===*
BIPARCP-1TXT  UNDEFINE                                      *===*
CATALMEM      ASM      GOP                                  *===*
LIB-SUMMARY1  DATA                                          *===*
LIB-SUMMARY2  DATA                                          *===*
-- END OF DISPLAY --
```

Narrative:

⌘ *BIM-EDIT's procedure language has it own full screen formatting facility. All statements following the MAPF command is displayed with the data in the same relative position on the 3270 screen until the ++/* statement is encountered.*

Procedure Language

⌘Procedure to Create Full Screen Display

```
P>
LIST  BIM.THEMILL                          SESS=A 2( 2) LINE=    0(    11)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF MEMBER --                                              *===*
;                                  !=UNPROT+ALPHA+INTENSE        *===*
;                                  }=PROT+NUM+NORMAL+NMDT        *===*
dcl input,char,1,f                 ;DECLARE VARIABLE INPUT       *===*
MAPF                               ;WRITE FOLLOWING LINES AS FULL SCREEN *===*
!INPUT}                                                         *===*
CSI International                                                *===*
8120 State Rt. 138                                              *===*
Williamsport, OH 43164                                          *===*
                                                                *===*
800-795-4914                                                    *===*
740-986-6028                                                    *===*
++/*                               ;TERMINATOR FOR FOLLOWING COMMANDS   *===*
EXIT OK                            ;EXIT W/RC=OK                 *===*
-- END OF MEMBER --
```

Procedure Language

⌘Output of Full Screen Display

CSI International
8120 State Rt. 138
Williamsport, OH 43164

800-795-4914
740-986-6028

Narrative:

⌘ *The next slide shows the diagnostic capabilities of the procedure language. They show the use of the trace, show and exit commands for help with debuging procedures.*

Procedure Language

⌘Diagnostic Facilities

```
P>
LIST  BIM.CALLXREF                               SESS=A 2( 2) LINE=     0(    20)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF MEMBER --                                                  *===*
SET PPDVBL,1                    ;INTERPRET &VARIABLE NAMES            *===*
SET PPDCOND,1                   ;RETURN CONTROL AFTER CONTITIONAL TEST *===*
SET PPDTRACE,1                  ;TURN TRACE OPTION ON                 *===*
SET TXMLIB,'ED00A'             ;SET LIBRARY FOR BROWSE               *===*
SET TXMMEM,''                   ;SET MEMBER FOR BROWSE                *===*
LABEL NEXTLIB                   ;DEFINE LABEL USED BY GOTO            *===*
BROWSE                          ;BROWSE LIBRARY NAMED IN TXMLIB       *===*
IF SIBRETCD,NE,EF               ;RETURN CODE = 'END OF FILE'          *===*
    GOTO LISTMEM                ;YES - BRANCH TO LIBDONE              *===*
EXIT OK,'END OF LIBRARY &TXMLIB'  ;EXIT W/RC=OK MSG='END OF LIB . . .'  *===*
LABEL LISTMEM                                                        *===*
LIST &TXMLIB\&TXMMEM            ;LIST MEMBERNAMED IN TXMLIB\TXMMEM    *===*
LOCATE \<CALL> ZONE=1-18        ;LOCATE PROGRAM CALLIN COLUMN 1-18    *===*
SHOW VBL                        ;DISPLAY ALL VARIABLES                *===*
EXIT SV,'NOW WHAT?'             ;EXIT W/RC=SV AND MSG='NOW WHAT?'     *===*
-- END OF MEMBER --
```

Procedure Language

⌘Output from Trace and Exit SV

◻LIST $LOG;BOTTOM (OR LI $LOG;B)

```
P>
LIST  $LOG                              SESS=A 3( 6) LINE=  465(  1503)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7----|----8----|----9----|---10----|---11----|--
03/30 17:30 ---------------------------- SNAP OUTPUT ----------------------------------------------------------------
03/30 17:30         COMMAND SOURCE        LINE #            COMMAND STRING
03/30 17:30 ---------------------------- ----- ---------------------------------------------------------------------
03/30 17:30 (COMMAND LINE)                ------ EX
03/30 17:30 BIM.CALLXREF                    10 GOTO LISTMEM                ;YES - BRANCH TO LIBDONE
03/30 17:30
03/30 17:30 (BICGOTOA) ** LABEL "LISTMEM" NOT FOUND **
03/30 17:30
03/30 17:39 ## TRACE GOTO  AT LINE    10 TO LABEL LISTMEM  AT LINE    12, BIM.CALLXREF
03/30 17:39
03/30 17:39 ---------------------------- SNAP OUTPUT ----------------------------------------------------------------
03/30 17:39         COMMAND SOURCE        LINE #            COMMAND STRING
03/30 17:39 ---------------------------- ----- ---------------------------------------------------------------------
03/30 17:39 (COMMAND LINE)                ------ EX
03/30 17:39 BIM.CALLXREF                    16 EXIT SV,'NOW WHAT?'          ;EXIT W/RC=SV AND MSG='NOW
03/30 17:39
03/30 17:39 NOW WHAT?
03/30 17:39
-- END OF $LOG --
```

Procedure Language

⌘Output from SHOW VBL

```
P>
DISP  -> SHOW VBL                              ;D SESS=A 3( 6) LINE=     0(   480)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF DISPLAY --                                                *===*
-------------------------------------------------------------------- *===*
LOCAL VARIABLES                                     ADDRESS=008C4000 *===*
-------------------------------------------------------------------- *===*
  NAME   TYPE   FMT CASE LENGTH             DATA                     *===*
          -  INDX - SN- DCL CUR                                      *===*
-------- - ----- - --- --- --- --------------------------------- *===*
PARMLIST C     0 V   M 253   0                                       *===*
-------------------------------------------------------------------- *===*
TXM (MEMBER RECORD) VARIABLES                       ADDRESS=0084AC00 *===*
-------------------------------------------------------------------- *===*
  NAME   TYPE    FMT CASE LENGTH             DATA                    *===*
          -  INDX - SN- DCL CUR                                      *===*
-------- - ----- - --- --- --- --------------------------------- *===*
TXMLIB    CHAR  V   U    16   5 ED00A                                *===*
TXMMEM    CHAR  V   U    16  10 ARXFLOC$-D                           *===*
```

Narrative:

⌘*REXX procedure language commands can also be intermixed with BIM-EDIT procedure language commands. BIM-EDIT procedure language commands are entered within single quotes.*

REXX in a Procedure

⌘REXX and BIM-EDIT Procedure

◠EX FKE.REXXEXP

```
P>
EDIT  FKE.REXXEXP                            SESS=A 2( 5) LINE=      0(     7)
¬---|----¬----|¬---2----|----3---¬|----4----|----5----|----6----|----7-¬
-- TOP OF MEMBER --                                                *===*
'set ppdvbl 1'                      /* EDIT SET INTERPRET &VARBLS */  *===*
SAY 'TEST SAY WORKS'                /* REXX DISPLAY MESSAGE */        *===*
'SENDMSG "MESSAGE FOR EDIT &MMP16KUS"' /* EDIT SEND MSG TO LINE 2 */    *===*
'expvbl "MESSAGE FOR EDIT &MMP16KUS" ' /* EDIT EXPAND VAR AND RETURN */  *===*
SAY  result                         /* REXX DISPLAY RESULT */         *===*
'WAIT 01'                           /* EDIT WAIT 1 SECOND */          *===*
EXIT                                /* REXX EXIT PROCEDURE */         *===*
-- END OF MEMBER --
```

REXX in a Procedure

⌘Output from REXX/EDIT Procedure

```
P>
REXX  -> EX                                  SESS=A 2( 8) LINE=      0(     2)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
-- TOP OF DISPLAY --                                                *===*
TEST SAY WORKS                                                      *===*
"MESSAGE FOR EDIT 83"                                              *===*
-- END OF MEMBER --
```

⌘ The output from the REXX procedure SAY command is not displayed until the EXIT command is processed.

REXX in a Procedure

⌘REXX and BIM-EDIT Procedure

◰EX FKE.REXXMAPF 3

```
P>
LIST  FKE.REXXMAPF                          SESS=A 5( 7) LINE=    1(    13)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
IF ARG(1,'O') THEN                     /* REXX WAS ARG ENTERED */     *===*
  EXIT "PARM1 (COUNT) IS A REQUIRED PARM" /* REXX EXIT WITH MESSAGE */ *===*
ARG TIMES                              /* REXX RECEIVE ARGUMENT */     *===*
'SENDMSG  "TIMES='||TIMES||'"'         /* EDIT SEND MESSAGE TO LINE 2 */ *===*
DO C= 1 TO TIMES                       /* REXX DO LOOP FOR 1 TO X TIMES */ *===*
  'EXPVBL &MMP16KUS    '               /* EDIT EXPAND &VARIABLE */     *===*
  D=RESULT                             /* REXX SET VARIABLE D TO RESULT */ *===*
  'MAPF'                               /* EDIT DISPLAY FULL SCREEN MAP */ *===*
  '    '||C||' THIS IS FROM REXX'      /* EDIT TEXT LINE 1 FOR MAPF */  *===*
  ' CURRENT STORAGE USED MMP16KUS='||D /* EDIT TEXT LINE 2 FOR MAPF */  *===*
  '++/*'                               /* EDIT TERMINATOR FOR MAPF */   *===*
  'WAIT 02'                            /* EDIT WAIT 2 SECOND */         *===*
END                                    /* REXX END OF DO LOOP */        *===*
CALL SLEEP 10                          /* REXX WAIT 10 SECONDS */       *===*
-- END OF MEMBER --
```

REXX in a Procedure

⌘Output from REXX/EDIT Procedure

First output:
```
 1 THIS IS FROM REXX
CURRENT STORAGE USED MMP16KUS=78
```

Second output:
```
 2 THIS IS FROM REXX
CURRENT STORAGE USED MMP16KUS=78
```

Third output:
```
 3 THIS IS FROM REXX
CURRENT STORAGE USED MMP16KUS=78
```

Change Control

⌘Members must have auditing on

⌘Master members or libraries need to be established

⌘Optionally the Archive feature must be installed

  ◠Up to 9 generations

  ◠Ability to RECOVER source from any generation or the Archive library

  ◠Archive library and backup facility

Narrative:

⌘*Master members are defined with CHECK=ON and AUDIT=ON. If a master member is queried it would display similar to the following slide.*

Change Control

⌘Member Audit and Master Setting

```
FALTER
MEMBER           : $SIT.MASTER.BIXLOGN


-------------------------------------------------------------------------------
TITLE            : MRECV->$SIT.MASTER.BIXLOGN
TYPE             : ASM
ATTRIBUTES       : NLXLHD      CHECKOUT USER        : PG
LIBDEF           :            CHECKOUT DATE/TIM    : 01/22/2004        11:33:54
USER             :            CHECKOUT LIBRARY     : BIM
CASE             : U          DATE/TIME CREATED    : 01/22/2004        11:14:55
NULLS            : ON         DATE/TIME UPDATED    : 01/22/2004        11:32:51
ZONE             : 1-72       CREATED BY           : PG
SEQ NUMBER COL   :            LAST UPDATED BY      : PG
FIND COLUMN      : 1          ED SESSION USER      :
WORD WRAP (/XP)  : OFF        LIST SESSION USER    :
AUDIT STATUS     : ON         SIZE                 :        77 LINES      1 BLK
STAMP STATUS     : OFF        AUDIT SIZE           :        16 LINES      1 BLK
CHECKOUT STATUS  : MASTER     DATE/TIME LAST TOUCH : 01/22/2004
```

Narrative:

⌘ *The Archive feature provides additional facilities. Up to 9 generations of a program can be maintained and then the changes are moved to the archive library where the number of changes is endless.*

Change Control

⌘Archive Generation and Archive libraries

```
P>
DISP  -> lib $sit.gen.                    SESS=A 2( 6) LINE=    1(    6)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
LIBRARY=$SIT.GEN                                              *===*
----------------------------------------------------------   *===*
     MEMBER       TYPE                TITLE                   *===*
---------------- -------- ----------------------------------- *===*
20040405-1424550 DATA     $SIT.MASTER\BIXLOGN-G2              *===*
20040405-1448230 DATA     $SIT.MASTER\BIXLOGN-G1              *===*
-- END OF DISPLAY --
P>
DISP  -> lib $sit.archive.                SESS=A 3( 6) LINE=    1(    6)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
LIBRARY=$SIT.ARCHIVE                                          *===*
----------------------------------------------------------   *===*
     MEMBER       TYPE                TITLE                   *===*
---------------- -------- ----------------------------------- *===*
TAPE-DIRECTORY   DATA     ARCHIVE TAPE DIRECTORY              *===*
20040405-1424360 ARCHIVE  ARCHV->$SIT.MASTER\BIXLOGN          *===*
-- END OF DISPLAY --
```

Narrative:

⌘*BIM-EDIT maintains audit information for added/inserted, deleted and modified lines. Audit trail information can be used to back out changes previously made.*

Change Control

⌘Audit Information

```
P>
EDIT  BIM.BIXLOGN                              SESS=A 2( 5) LINE=     0(    15)
¬---|----¬----|¬---2----|----3---¬|----4----|----5----|----6----|----7-¬
-- TOP OF AUDIT --                                                      *===*
.EDIT  DATE=04/05/2004, TIME=14:35:05, USER=PG     , TERM=Q006          *===*
.INS   LOC=    6, EXT=    2                                             *===*
* ADDED LINE #3                                                         *===*
* ADDED LINE #3                                                         *===*
.INS   LOC=    6, EXT=    2                                             *===*
.MOD   LOC=    6                                                        *===*
* ADDED LINE #3                                                         *===*
* ADDED LINE #4                                                         *===*
.MOD   LOC=    6                                                        *===*
.MOD   LOC=    7                                                        *===*
* ADDED LINE #3                                                         *===*
* ADDED LINE #5                                                         *===*
.MOD   LOC=    7                                                        *===*
.SAVE  DATE=04/05/2004, TIME=14:37:40, USER=PG     , TERM=Q006          *===*
.EDIT  DATE=04/05/2004, TIME=14:37:42, USER=PG     , TERM=Q006          *===*
-- END OF AUDIT --
```

Narrative:

⌘*BIM-EDIT's distributed submit facility uses the member type and attribute to identify the $SIT.COMP JCL member to be wrapped around the submitted member.*

Customized JCL Submission

⌘Customized Compile and Assembly

```
P>
LIST  $SIT.COMP.COBOL-BAT                    SESS=A 3( 6) LINE=    1(   23)
----|----1----|----2----|----3----|----4----|----5----|----6----|----7--
SET PPDVBL,2                                                    *===*
SET PPDINCL,1                                                   *===*
SET PPDTRAP,1                                                   *===*
SUBMITF                                                         *===*
* $$ JOB JNM=&TXMMEM,DISP=D,CLASS=W,USER=&SIBUSER              *===*
// JOB &TXMMEM                                                  *===*
// OPTION CATAL,NOLISTX,NOSYM                                   *===*
 PHASE &TXMMEM,*                                                *===*
// EXEC FCOBOL,SIZE=128K                                        *===*
 CBL NOSEQ,FLAGW,NOCLIST,NOSXREF,NOTRUNC                       *===*
)INCL &TXMLIB\&TXMMEM                                           *===*
/*                                                              *===*
// EXEC LNKEDT                                                  *===*
/&                                                              *===*
* $$ EOJ                                                        *===*
-- END OF MEMBER --
```

Narrative:

⌘*Inter-user mail is a facility which can be used to send messages to yourself or other BIM-EDIT users.*

Inter-user Mail

⌘MAIL and MAILI

⬒Used to send mail to another BIM-EDIT user.

⌘OPEN

⬒Used to open mail sent to a user.

⌘LIBRARYQ

⬒Used to display the status of the users mail queue.

Narrative:

⌘ *The calendar feature is a reminder facility where a message can be sent to yourself at logon time for a specific day of the week, month or year.*

Calendar Feature

⌘TODAY

```
Time=20:45:01                    CALENDAR                    Date=04/05/2004
 Today is Monday, April 05, 2004
 --------------------------------------------------------------------------
                                              March        2004
                                              |SU|MO|TU|WE|TH|FR|SA|
                                              |  |01|02|03|04|05|06|
                                              |07|08|09|10|11|12|13|
                                              |14|15|16|17|18|19|20|
                 A P R I L                    |21|22|23|24|25|26|27|
                   2004                       |28|29|30|31|  |  |  |
     | SU | MO | TU | WE | TH | FR | SA |
     |    |    |    |    | 01 | 02 | 03 |
     | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
     | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
     | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
     | 25 | 26 | 27 | 28 | 29 | 30 |    |
                                              May          2004
                                              |SU|MO|TU|WE|TH|FR|SA|
                                              |  |  |  |  |  |  |01|
                                              |02|03|04|05|06|07|08|
  PF1 : today's notes      PF3 : exit         |09|10|11|12|13|14|15|
  PF6 : expand month       PF7 : previous month  |16|17|18|19|20|21|22|
  PF8 : next month         PF9 : month's notes   |23|24|25|26|27|28|29|
     PF11 : permanent note administration     |30|31|  |  |  |  |  |
```

Narrative:

⌘ *The PERM on the expanded calendar indicates that there is a message for each Tuesday of the week. The NOTES means there is a message that was sent when the user logged on April 6, 2004.*

Calendar Feature

```
==>    Add note: Enter day and text <ENTER> - View notes: Enter day <PF1>
==> Today is Monday, April 05, 2004
TIME=20:52:21          A P R I L           2 0 0 4           DATE=04/05/2004
    Sunday      Monday      Tuesday    Wednesday   Thursday    Friday     Saturday
 |_____|_____|_____|_____|_____|_____|_____|
 |          |          |          |          | 01       | 02       | 03       |
 |          |          |          |          |          |          |          |
 |_____|_____|_____|_____|_____|_____|_____|
 | 04       | 05       | 06  PERM | 07       | 08       | 09       | 10       |
 |          |          |    NOTES |          |          |          |          |
 |_____|_____|_____|_____|_____|_____|_____|
 | 11       | 12       | 13  PERM | 14       | 15       | 16       | 17       |
 |          |          |          |          |          |          |          |
 |_____|_____|_____|_____|_____|_____|_____|
 | 18       | 19       | 20  PERM | 21       | 22       | 23       | 24       |
 |          |          |          |          |          |          |          |
 |_____|_____|_____|_____|_____|_____|_____|
 | 25       | 26       | 27  PERM | 28       | 29       | 30       |          |
 |          |          |          |          |          |          |          |
 |_____|_____|_____|_____|_____|_____|_____|

 PF3 : return   PF7 : prev month   PF8 : next month   PF9 : notes   PF11 : perm
```

Narrative:

⌘ *SCAN, LOCATE, FIND and QUALIFY commands are all used to search for string arguments within members, libraries or all libraries in BIM-EDIT.*

SCAN, LOCATE, FIND and QUALIFY Commands

⌘ SCAN
- Searches a library, group of libraries or all BIM-EDIT libraries for a character string and creates a session with the result

⌘ LOCATE and FIND
- Positions session to next occurrence of a character string

⌘ QUALIFY
- Gathers all occurrences of a character string

Current Release and Contact Information

⌘ BIM-EDIT 5.6B
⌘ CSI International
   8120 State Rt. 138
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   800-795-4914