```
SDWTERR MSET
        BRU

*       'EXECUT
SGO     LDA     =
GET10   STA     GE
        SBRM    GIF                 READ INPUT FILE NAME
        SBRM    OKTOGO
GET10A  BAC
        SKE     =1                  CHECK FILE TYPE IS CORE-IMAGE
        BRU     GET9+1
        SKN GETPL; BRU *+3; LDA =PRGRL1; SBRM CKRLB
        SBRM    RSYS
        LDA     INFIL
        LDX     =PRGRL1
        SBRM    GET                 READ FILE INTO PRGRM MEMORY
        BRU     DRDERR
        CLA
        STA     INFIL
        SKN     GETPL
        BRU     CRA                 EXIT HERE IF 'PLACE'
GET8    SBRM    EXECRL
        LDA     GETSTL              SET PANIC TABLE FOR FORK
        MRG     =40100000B
        STA     SSL
        LDP     PRGRL1
        STP     SSR1
        LDA     GET9
        SKN     CPARW
        BRU     *+2
        MRG     X4                  START AS EXECUTIVE
        BRS     9                   START UP RECOVERED FILE
        BRS     31
        LDP     SSR1                UPDATE PRGRL AND RETURN FOR NEXT COMMAND
        STP     PRGRL1
        LDA     SSL
        STA     EXECL
        BRU     EXECP
GET9    NOP     SSL,3
        MSET    XM6
        BRU     ERRET+2
```

```
*       'DEFINE'
*       SETS UFD STATUSES

$STFD   SBRM    FDFNA
        BRU     ERRET
        MSET    M69
        SBRM    DCHAR3
        BRU     ERRET
        LDX     UNPTR
        SKE     PRI
        BRU     ST1
        LDA     1,2
        ETR     =37777777B
        STA     1,2
        CBA ; SKE COMCH; BRU ST5
        SBRM    DCHAR3
        BRU     ERRET
        SKE     REA
        BRU     ERRET
        BRS     46
        LDX     UNPTR
        LDA     X4
ST4     MRG     1,2
        STA     1,2
        LDA     X4
        MRG     0,2
        STA     0,2
        BRU     UPFD
ST1     XAB
        SKE     COMCH; BRU *+2
        BRU     ERRET
        COPY    BA,B
        SKE     ACC
        BRU     ST3
ST2     BRS     46
        XAB
        XMA     2,2
        ETR     =67777777B
        ADM     2,2
        LDA     0,2
        ETR     =37777777B
        STA     0,2
        LDA     X4
        MRG     1,2
        STA     1,2
        BRU     UPFD
ST3     SKE     PUB
        BRU     ERRET
        LDB     X1
        BRU     ST2
ST5     BRS 46; CLA ; BRU ST4


*       'PLACE'
$PLACE  CLA
        BRU     GET10
```

```
*       'BRANCH'
$BRANCH SBRM    RONO
        XAB
        SKE     OKCH
        BRU     ERRET
$GOTO1  STB     GETSTL
        BRU     GET8



*       'SAVE'
$SAVE   SBRM    RONO            READ CORE BOUNDS
        STA     SAVEFL
        MSET    M5Ø
        SBRM    RONO
        STA     SAVELL
        CBA
        MSET    M16
        LDA     SAVELL          READ O/P FILE NAME AND OPEN FILE OF TYPE
        SUB     SAVEFL
        ADD     =1
        LDB     =1
        SBRM    GOFN
        CBA ; SKE COMCH; BRU SAVE2
        MSET    M3
        SBRM    RONO            ... READ STARTING LOCATION
        BRU     *+2
SAVE2   LDA     =24ØB
        STA     SAVESL
        CBA ; SKE OKCH ; BRU ERRET
        LDA     SAVEFL          WRITE OUT CORE BOUNDS AND STARTING LOCATIO
        STA     GET2
        WIO     OUTFIL
        LDA     SAVELL
        STA     GET3
        WIO     OUTFIL
        LDA     SAVESL
        WIO     OUTFIL
        LDA     =PRGRL1         SET UP DATA FOR GBIO, PERFORM INFORMN. TRB
        STA     GET5
        LDX     =GET2
        LDA     OUTFIL
        SBRM    GBIO
        BRU     SAVE1
        BRU     OUTEX
SAVE1   MSET    M1Ø
        BRU     OUTEX
```

```
*       'DUMP'
SDUMP   SBRM    EXECRL1         (UPDATE EXRL)
        CLA
        STA     TLV1
        LDA     =NCMEM
DUMP10  ADD     =1
        SKG     =77B
        BRU     DUMP11
        LDA     TLV1
        CLB
        LSH     11
        LDB     =4
        SBRM    GOFN
        LDA     OUTFIL1
        SBRM    BRS95
        BRU     SAVE1
        BRU     OUTEX
DUMP11  BRS 39; BRU DUMP10; MIN TLV1
        BRU     DUMP10
```

```
*       'RECOVER'
SREC    SBRM    GIFN
        CBA
        SKE     =4
        BRU     ERRET
        SBRM    OKTOGO
        SBRM    KILL6
        LDA     INFIL1
        SBRM    BRS96
        BRU     DRDERR
        BRU     CLOSE
```

```
*       'RESTART'
*       RESTARTS A USER AFTER ACCIDENTAL DISCONNECT

$RESDMP LDA     =4000000B
        SKA     CPARW           LOOK FOR RESTART STATUS
        BRU     *+2
        BRU     ERRET
        EAX     UFDE
        LDA     -7,2
        SKG     =0
        BRU     RDMPM
        STA     GET2
        BRS     46
        SBRM    KILL6
        CLA
        XMA*    DBAJOB
        STA     TLV1
        LDA     GET2
        LDX     =8
        BRS     1
        BRU     RESDP1
        SBRM    BRS96           RECOVER RESTART FILE
        BRU     RESDP1
        CLA
        XMA     INFIL
        BRS     2
        LDA     GET2
        LDX     =9
        BRS     1
        BRU     RESDP1
        BRS     66
        BRS     2
        LDA     GET2
        BRS     67
        CLAB
        EAX     UFDE
        STP     -8,2
        LDA     TLV1
        ADM*    DBAJOB
        BRU     CLOSE
RDMPM   MSET    M63             'RESTART MISSING'
        BRU     ERRET+2
RESDP1  LDA     TLV1
        ADM*    DBAJOB
        BRU     DRDERR
```

```
*       'TIMES'
*       PRINTS ELAPSED TIMES SINCE BEG OF ACCT PER.

$TIMES  SBRM    MFD
        LDA     UREAL1
        SBRM    GETTIM
        SBRM    HOUR
        MSET    M4
        LDA     UREAL1
        SBRM    DAYTIM
        MSET    M40
        SBRM    CHAR3
        BRU     CRA
        SKE     YES
        BRU     CRA
        MSET    M49
        LDX     =UFDE
        LDP     -3,2
        COPY    AB,BA
        SBRM    HOUR
        MSET    M48
        LDX     =UFDE
        LDA     -6,2
        MUL1    =255
        LSH     23
        SBRM    PDNO
        MSET    M21
        BRU     CRA

$SETDAT         SBRM EXEUSE; SBRM SDAT; BRU CRA


$FIND   SBRM    NMVF
        LDA     XWR8
        LDX     =NTTB
FIND1   XXA
        SKE     =0
        BRU     FIND4
        MSET    M30
        BRU     CRA
FIND4   XXA
        EAX     -1,2
        SKE     WERIS,2
        BRU     FIND1
        STX     DEL2
        STA     DEL3
        MSET    M5
FIND2   LDA     DEL2
        SBRM    PDNO
FIND3   LDA     DEL2
        SKE     =0
        BRU     *+2
        BRU     CRA
        SUB     =1
        STA     DEL2
        CAX
        LDA     WERIS,2
        SKE     DEL3
        BRU     FIND3
        LDA     COMCH
        CIO     COUT
        BRU     FIND2
```

```
*       'STATUS'
SMA     LDA PRGRL1; MRG PRGRL2; SKE =0; BRU *+2
        BRU MA2; MSET M21; EAX PRGRL1; SBRM PRMA
MA2     SKN SYSTL; BRU *+2; BRU CRA; MSET M21
        SBRM PSCN; CLA ; CIO COUT; EAX SSRL; SBRM PRMA; BRU CRA

*       'DISC ALLOCATION'

SMA1     SBRM    MFD
        MSET    M27
        EAX     UFDE
        LDP     -6,2
        STP     UNPTR
        LDA     -4,2
        MULI    =255
        LSH     23
        SBRM    PDNO
        MSET    M36
        LDA     UNPTR
        MULI    =255
        LSH     23
        SBRM    PDNO
        MSET    M54
        LDA     UNPTR1
        MULI    =255
        LSH     23
        SBRM    PDNO
        BRU     CRA

PRMA    ZRO PRMA1; STX DEL2; LDX =-8
PRMA5   STX DEL3; LDA DEL2; SBRM ERB; SKG =0
        BRU PRMA4; SBRM PONO
PRMA3   LDB SLSHCH; LDA DEL3; SKE =-5; CLB ; CBA ; CIO COUT
        LDX DEL3; BRX PRMA5; BRR* PRMA
PRMA4   LDA MINCH; CIO COUT; BRU PRMA3


*       DATE

SDATE   LDA     REALI
        SBRM    DAYTIM
        BRU     CRA


SWHO    LDA =-1 ; STA RLV2
WHO1    MIN RLV2; LDA RLV2 ; SKG =NTTB-1
        BRU *+2 ; BRU CRA
        CAX; LDA AUNN,2; SKE =0; BRU *+2; BRU WHO1
         SBRM OUTUSE  USER NAME
        MSET M5; LDA RLV2 ; SBRM PDNO   LINE NO.
        MSET M21; BRU WHO1
*       'ACCEPT LINKS'
SAM     LDX     =-1
        LDA     =2
        BRS     25
        BRU     CRA
```

```
*       'REFUSE LINKS'
SRM     LDX     =-1
        CLA
        BRS     25
        BRU     CRA


*       'LINK'

SML1    SBRM RDNO; XAB; SKE OKCH; BRU ABORT
ML1     BRS 46; CBA; BRS 23; BRU MLR
        MIN NLNK
        MSET M21; LDX UTTY; SBRM OUTUSE; MSET M5
        LDA UTTY; SBRM PDNO; MSET M70; BRU CRA
MLR     SKA     =77777700B
        BRU     MLR1
        MSET    M11             'BUSY'
        BRU     CRA
MLR1    SKA     =6000000B
        BRU     MLR2
        MSET    M14
        BRU     AM
MLR2    MSET    M13
        BRU     CRA


*       LINKS USER TO OPERATOR

SCSHARE LDA     OPR
        LDX     REAL1
        STX     LGTM            (TS-BLOCK)
        BRU     ML1

*       '"'
SQT     CIO     CIN
        SKE     EOTCH
        BRU     *+2
        BRU     CRA
        SKE     CRCH
        BRU     QT
        LDA     LINF
        CIO     COUT
        BRU     QT
```