Identification

64.5 Driver
D.E.Joel

Purpose

This program is an alternative to the command MRGEDT in the
CTSS system. It is a card driven program which produces a
jobstream on magnetic tape.

Operation

Two card decks are required as the input for this job. The
first is a program deck which is standard, and the second is
the data deck wherein the user describes his requirements.

Additionally, it is required to use the tape library which
has been set up specifically for running 6.36 and 64.5 jobs.

The Program Deck

```
$      SNUMB      XXXXX

$      IDENT      XX,64.5,DRIVER,INPUT RUN FOR THE
                  64.5 SYSTEM.
$      CONVERT

$      READ       IN,A1R

$      INPUT      MIXED

$      DISC       OT,A1S,30L

$      LIBRARY    LB

$      OPTION     NOMAP

$      USE        .DJ645

$      ENTRY      .DJ645

$      EXECUTE

$      LIMITS     40,20222,,500

$      DISC       IN,A1R,20L

$      DISC       6B,A2R,20L
```

THE PROGRAM DECK (Continued)

$	DISC	F8,A3R,20L
$	DISC	F1,A4R,20L
$	DISC	F2,A5R,20L
$	DISC	F3,A6R,20L
$	DISC	F4,A7R,20L
$	DISC	F5,A8R,20L
$	DISC	F6,A9R,20L
$	DISC	F7,A10R,20L
$	DISC	F9,A11R,20L
$	DISC	FA,A12R,20L
$	DISC	FB,A13R,20L
$	TAPE	OT,A1D,,,,SCRATCH
$	TAPE	LB,A2S,,,,645.LIBRARY
$	COMMENT AFTER ENDJOB USE *SCRATCH* AS GECOS INPUT TAPE.	
$	ENDJOB	

***EOF

THE DATA DECK

The data deck contains control cards and 'data' cards. The
control cards inform the 64.5 Driver of the functions to be
performed. (A control card has $645 in columns 1-4, type
starting in column 8, and parameters, if any, starting in
column 16). Control cards are:

(A) Identification Card

     $645   RUN   Runname,programmer-ID

This card is the first card recognized in the data deck.

Runname and programmer-ID are restricted to a maximum of
6 characters each.

(B)   BSA Assembly Card

        $645   BSA   Name,options

This card precedes the source deck which is to be assembled.

Name is the segment name of the assembly and is restricted
to 6 characters.

The options available are:

    NLSTOU   -   No listing required

    NDECK   -   No deck required

    NOLOAD   -   Not to be loaded for simulation.

In the absence of option specification deck and listing are
produced and execution (via the simulator) is attempted.

(C)   EPLBSA Assembly Card

        $645   EPLBSA   System-name, Segment-name,options

This card precedes the source deck which is to be
assembled.

'System-name' is a 6 or less character name which is
used within the system to reference this segment and
its associated parts.

'Segment-name' is a 31 or less character name which
defines the segment uniquely.

The options available are:

    NDECK   -   No deck required

    NOLOAD   -   Not to be loaded for simulation

In the absence of option specification, a binary deck
is produced and execution (via the simulator) is
attempted.

The source deck to be assembled may be in either of
two formats:

(a) BCD cards with conventions described in BE.6.00

(b) Column binary 7 punch cards from CTSS of a file produced by EDA.

(D)   Object Card

$645   OBJECT

This card precedes object text and link decks - as many as required.   An attempt at simulation is implied.

(E)   Descriptor Word Setting Card

$645   OPTION   parameters

Parameters which may be specified are:

MNEMONIC	MEANING
FO	Directed Fault 0
F1	Directed Fault 1
.	
.	
.	
F7	Directed Fault 7
DATA	
SLVPRC	Slave Procedure
MASPRC	Master Procedure
EXONLY	Execute Only
SLVACC	Slave Access

(E)   (Continued)

    WPERMT   Write Permit

If no OPTION card is present, standard settings are used:

    SLVPRC, SLVACC, WPERMT

The settings specified in an OPTION card remain in effect until another OPTION card is encountered.

If no parameters are specified in an OPTION card, standard settings are reverted to.

(F) Pagesize Setter

    $645 RSPGSZ   Size

Page sizes are:

    0   -   Unpaged

    64   -   64 word pages

    1024   -   1024 word pages

The settings specified in an RSPGSZ card remain in effect until another RSPGSZ card is encountered.

(G) GE635 Subprogram Inclusion

    $645   SYSTEM   Activity-name

The activity names (within the 64.5 system) are:

    INITAL   -   Initializer

    EBSASS   -   EPLBSA Assembler

    BSAPRE   -   BSA preprocessor

    BSAPST   -   BSA post processor

    PACKER   -   Packer

    FILEMK   -   Filemarker

    LODSIM   -   645 Loader/Simulator

    DUMPER   -   Dumper

(G)   (Continued)

GE635 object decks, including octal corrections, which
follow a SYSTEM card are included during the execution
of the named 64.5 activity.

(H) Entry Card

          $645   ENTRY   Segment,symbol

This card defines the location at which simulation is
to be commenced. Segment and Symbol are restricted to
31 characters each.

Default entry parameters (segment main, symbol start)
are used if no ENTRY card is encountered.

(I) Foundation Cards

		Default	Meaning
$645	DSPGSZ	64	Descriptor Segment Page Size
$645	NTPGSZ	64	Name Table Page Size
$645	LSPGSZ	64	Page Size of Linkage Segments
$645	STPGSZ	64	Stack Segment Page Size
$645	PBLKSZ	64	Block Size of Page Tables and Other Unpaged Segments
$645	DSGBND	1	Highest Block Number Permitted in Descriptor Segment
$645	NMTBND	2	Highest Block Number Permitted in Name Table Segment
$645	FLTBAS	256	Base of Fault Vector in 636
$645	LODORG	FLTBAS+384	Loading of Origin
$645	TIME	1000	Thousands of 636 Memory Cycles Permitted.

(I)   (Continued)

These cards are used to set loading parameter which do not change during loading. As indicated, default values are set for all of these parameters, so that a typical user deck might not include any of these cards.

(J)   Foreign File Card

$645   File   Name

Name is a 31 or less character file name.

This card precedes the deck which contains a data file for the user's program. The data deck may be in one of two formats:

    a)   BCD card image with convention described in BE.6.00.

       When explicit line feed control is not defined as the last entry on a card, a newline character is added to the end of the data stream. A fill character (octal 000) is used to complete a partially filled word at the end of the information from each card.

    b)   Column binary 7-punch which is produced by CTSS (e.g., from an EDA file).

The data deck is terminated by an end-of-file card (***EOF in columns 1-6).

Requirements when Simulation Requested

A card deck is available which contains basic 645 programs (LINKER, F2CATC, INIT, SEGMEN), plus the necessary control cards described above. If simulation is to be attempted, this deck must be included as part of the data deck.