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Identification

The Usage of gecos_seg under 6.36
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Purpose

The gecos_seg 635 object deck loader described in BX.17.01 is available as a 6.36 execution activity to create and return to CTSS a single text and link segment set per 6.36 run. It is driven by the merge_editor using a special set of files existing in T234 CMFL01.

Usage

The control segment for 6.36 gecos_seg must be named "gc_control.gecos_seg" and requires two special control lines at its head before any other control line:

a) "names" segment_name file_name
where segment_name is the name of the segment to be returned as file_name TEXT and LINK. The maximum lengths of segment_name and file_name are 32 and 6 characters respectively.

b) text_length allocated_length
Because gecos_seg is unable to dynamically increase segment lengths during a 6.36 run, the maximum possible length of the created text segment must be specified at the beginning of the run. allocated_length is taken to be a decimal integer. This control line may be omitted, in which case the default value of allocated_length is 10K. 1024 words are allocated for linkage segment, which should be sufficient for all but the most pathological cases. This line has nothing to do with the "segment_size" control line, nor does it affect the lengths of the returned text and link segments.

These two control lines have absolutely no effect if encountered by gecos_seg under Multics.

The 635 object decks and the gecos_seg control segment must be supplied to the 6.36 activity via "maketl" control lines in the mrgedt gecos control file in the following

manner:

```
MK GCCTL ASCII GC-CONTROL.GECOS-SEG DATA SLVACC

PGSIZE 1024

MK OBJ1 BINARY OBJECT1.6350BJECT  DATA SLVACC

... ...

MK OBJN BINARY OBJECTN.6350BJECT  DATA SLVACC

PGSIZE 64
```

If the length of an object deck segment is greater than 16K words, its page size must be set to 1K or the run will abort during loading. Otherwise the PGSIZE control lines are unnecessary. A fetch control line of the form

```
FETCH file_name TL
```

must be included in the control file to put the created segments on the return tape. file_name is the same as that specified in the "names" gecos_seg control line.

The control line "INCLUDE GSEG" should be inserted at the top of the GECOS file to pick up the gecos_seg driver file. Because gecos_seg can not fit into the T28K GECOS machine, the default LIMITS is set to 217K in the include file. ERROR and UNDUMP lines are also included. If a binary listing of the created segment is desired, a CORE line should be included in the GECOS file. The segments are named "gecos_seg_outpt" and "gecos_seg_outpt.link" in the core dump.

Links to the following files in T234 CMFL01 are necessary:

```
GSEG GECOS

GCFREE EPLBSA

D.INIT TEXT and LINK

D.SMM TEXT and LINK

D.STA TEXT and LINK

GCSER6 TEXT and LINK
```

GCSER6 TEXT and LINK

GCMAN6 TEXT and LINK

Implementation

The regular version of gecos_seg has been modified to recognize the control lines "names" and "text_length" and places the values of segment_name, file_name, and allocated_length into external static cells. All interfaces with the 6.36 file system occur within a special version of seg-control, which also reads the value of the external text_length cell. There exists a special "main" segment which has the responsibility of calling gecos_seg and later giving the created text and link segments back to GECOS with the proper segment_name and file_name.