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Identification

Interim Search Module
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Purpose

This section describes the Interim Search Module which will be available for Phase I of Multics. It searches a specific sequence of directories for segments which are desired by the Segment Housekeeping Module (Section BD.3.00).

The Interim Search Module can easily be edited with the command edit (Section BX.9.01) to provide for changes in the directory structure as the file system hierarchy matures. The Search Module described in Sections BD.4.00-.04 and BX.13 will ultimately replace the Interim Search Module.

Discussion

The Linker (BD.7.04) calls the Segment Housekeeping Module to find a segment for a given call name. If the Segment Housekeeping Module cannot find a segment it calls the Search Module via:

```
call search (name, callerptr,dirname,entry,errtn,errcode)
```

where

name is the call name passed by the Linker to the Segment Housekeeping Module

callerptr is a pointer to the actual segment referencing name, i.e., the faulting segment - not the Linker

dirname is the path name of the directory which contains the entry to be used for name.

entry is the entry name of the segment to be used for name.

errtn is the statement to which the Search Module returns in the event of an error.

errcode contains a code number in the event of an error. The possible codes and their respective meanings appear at the end of this section.

The Interim Search Module resides as a segment in the Multics Command and Subroutine Library.

The Interim Search Module searches all the directories available in Phase I until it finds an entry name which matches the call name being sought, name. The Interim Search Module ret

Currently, the directories known to be available in Phase I are:

	<u>Directory name</u>	<u>Absolute path name</u>
1.	the root directory	(root)
2.	the Multics Command and Subroutine Library	>mcs1
3.	the Process Directory Directory	>pdirdir
4.	the Process Directory	>pdirdir>pdir

The Interim Search Module searches these directories for a matching entry name in the order 4, 2, 1, 3. In general, the Interim Search Module probably finds a matching entry name after the first two directory searches -if the name is in the hierarchy at all.

Implementation

EPL declarations for the parameters to search are:

```
dcl name char (*), dirname char(*), entry char(*),
    callerptr ptr,
    errcode fixed,
    errtn label;
```

The Interim Search Module successively invokes Directory Control's primitive status, each time supplying a different directory path name.

Error codes

- 1 means no matching entry name was found.
- 2 means a directory is missing.