Identification

Create_hardcore_segs
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Purpose

Create_hardcore_segs is one of the procedures of the Process
Creation module. Its purpose is to create the needed
hardcore ring private data bases of the new process.

Discussion

In order for a new process to be able to begin execution
in the hardcore ring, the creator process must provide
three data segments for the new process. The segments
are:

1.   A process data segment (pds, see Section BJ.1.03).

2.   A process definition segment (pdf, see Section BJ.1.06).

3.   A known segment table (kst, see Section BG.1).

In addition, under certain conditions (see below) create_
hardcore_segs will also create a user group directory
for the user group of the new process.

The calling sequence for create_hardcore_segs is:

        call create_hardcore_segs (id, dir_pathname, user_id);

where:

id   is the process identification of the new process.

dir_pathname   is the path name of the new process directory.

user_id   is the user group to which this new process
                will belong. This argument is also passed
                as a character string. This argument is
                ordinarily the null character string in which

case the new process is put in the same group as
its creator. Only privileged processes can specify
a user id other than the creator's id. If a
privileged process does specify a user id other
than the creator's user id, create_hardcore_segs
will cause a new user group directory to be
created by calling subroutine create_user_dir
(see Section BJ.8.06).

Create_hardcore_segs first creates each of the three specified
segments by copying a template copy of each into the directory
specified in the calling sequence. The copying is done
by subroutine copy_seg (see Section BJ.8.05). Once the
three templates are copied, several data items in the
various segments, which are process dependent, must be
initialized.

In the pds of the new process, only one data item, item
processid, must be set to the id of the new process.
In the pdf of the new process, two data items must be
initialized: The account id and the user group id. The
account id of the new process can be found in the accounting
segment placed in the new process directory by subroutine
create_proc (see Section BJ.8.01). The user group id
is, of course, passed in the calling sequence to create_hardcore_
segs. Finally, the initial kst of the new process has
no process dependent information and the template copy
is sufficient for the process. Therefore, at this point,
create_hardcore_segs returns to its caller.