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Identification

Process Group creation and destruction
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Purpose

The two entries described in this section respectively create and destroy process groups. They are used by system procedures to create and destroy system process groups and by the overseer to create and destroy user process groups as users log in and out.

Usage

To create a process group

```
call process_group$create (name, projid, tag, status);  
dc1 (name, projid) char (24),  
    tag char (2),  
    status fixed bin (17);
```

To destroy a process group

```
call process_group$destroy (name, projid, tag, status);
```

Implementation

Process_group\$create calls append_branch to create a group directory with the name indicated by its caller and creates a segment "processes" in that directory. It then calls mode\$set to permit the directory and the segment "processes" to the new process-group. The caller of process_group\$create is responsible for creating processes in the new group.

If anything goes wrong, process_group\$create returns as status the status code returned to it by append_branch or mode\$set. A status of zero indicates that all is well.

Process_group\$destroy calls delete_subtree to destroy the group directory and all segments in that directory. Before doing this it checks the segment "processes". The segment has the format of a PL/I structure:

```
    dc1 1 processes based (p),  
        2 n_proc fixed bin (17),  
        2 process_id (p->processes.n_proc);
```

That is, the segment is a list of the processes in the group. It is updated by `create_proc` and `destroy_proc` whenever a process is created or destroyed. `Process_group$destroy` checks that there are no processes in the group before destroying the group directory by a call to `delete_entry`.

If there are processes in the group `process_group$destroy` returns `status = -1`. Otherwise it returns whatever status `delete_entry` returned to it. A status of zero means that all is well.