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Identification

List of System Processes J. H. Saltzer

Purpose

This section gives the name of, purpose of, and reference to further information about, each system process which may exist during Multics operation. This list does <u>not</u> include system functions which are carried out by processes operating within the process group of a system operator, since he is considered a normal logged-in user. The list is organized by System Process Groups.

List of System Process Groups

- 1. System Control Process Group controls operation of Multics, in response to orders from the system operator. Name: .system control.aa Reference: BO.1
- 2. Storage Backup Process Group performs backup of secondary storage hierarchy onto tape. Name: .system_backup.aa Reference: BH.2.00
- 3. Storage Reload Process Group--performs reload of secondary storage hierarchy from tape. Name: .System_reload.aa. Reference: BH.3.02
- 4. Read/Punch/Print Process Group--operates all card readers, and punches, and printers attached to system. Name: .System_bulk_IO.aa Reference: BF.5
- 5. Test and Diagnostic Process Group--runs periodic tests of system hardware to establish whether or not it is working correctly. Name: .System_test.aa Reference: BR.
- 6. Administrative Process Group--performs periodic accounting and auditing functions. Name: .system_account.aa Reference: BO.

System Control Process Group

- 1. System Control Process--overseer of the System Control Process Group; accepts orders from system operator and relays them to appropriate members of its group. See BQ.1.01.
- 2. File System Device Monitor Process—responsible for all drum or disk signals (interrupts). Called into operation when system activity slackens. Refills hardware queues, etc. See BG.16.
- 3. Answering Service Process--Responsible for all signals from communication lines not currently in use. Creates a user process group to log in requesting user. See BQ.2.01.
- 4. Clock Manager Process--Responsible for all signals from calendar alarm clock. Resets alarm clock, reflects wakeup to user process which requested it. See BD.10.03.
- 5. Tape Controller Manager Process--used to help simulate independent tape channels, responsible for all signals arriving from shared tape channels; reflects signals to appropriate users. See BF.

Storage Backup Process Group

- 1. Storage Backup Process organizes the backup of secondary storage file onto tape. See BH.2.00.
- 2. Hierarchy Searcher Process searches selected portion of the hierarchy for files to copy onto tape. Replicated as many times as Storage Backup Process deems appropriate. See BH.2.00.
- 3. Tape Manager Process device manager process for magnetic tape drives; replicated once for each tape drive in use by Storage Backup Processes. See BH.4.01.

Storage Reload Process Group

 Storage Reload Process - organizes a reload of backup tapes into secondary storage. See BH.3.

- 2. Hierarchy Load Process - Reloads a certain number of backup tapes into secondary storage. Replicated as many times as Storage Reload Process deems appropriate. See BH.3.
- Tape Manager Process--device manager process for magnetic tape drives, replicated once for each tape drive in use by Storage Reload processes. See BH.4.02.

Read/Punch/Process Group

- Printer Driver Process--organizes flow of information from files to line printers. See BF.5.02.
- Printer Pump Process -- device manager for a specific line printer. Replicated once per line printer. See BF.5.04.
- Punch Driver Process--organizes flow of information from file to card printers. See BF.5.16.
- Punch Pump--device manager for a specific card punch. Replicated once per card punch. See BF.5.16.
- Card Reader Driver--organizes flow of information from card reader to files. See BF.5.08.
- Card Reader Pump--device manager for a specific card reader. Replicated once per card reader. See BF.5.08.

<u>Administrative Process Group</u>

- Core Storage Accounting Process--periodically sets accounting fault bit on for all core blocks except accounting fault handler. See B0.2.03.
- 2. Secondary Storage Accounting Process--periodically accounts for usage of secondary storage. See B0.2.04.