



Peripheral devices can be controlled by the system or allocated by individual process. At least one disk must be a system disk. Users can designate other disks as system or group disks for the general use of all users logging in to the system or for a subset of users known as a "group". Interactive terminals are controlled by the system, and the system normally controls one or more printers.

Print queues, both generic and specific (with forms recognition) together with queue management facilities give the user versatile print capabilities.

The user can designate system-controlled printers as spooled devices for the output of queued print jobs, so that individual process can specify printed output without actually having to allocate a printer. Process submit printed output as jobs to print queues. Within each queue, print jobs are processed serially by priority; jobs with the same priority are processed on a first-in/first-out basis. A print queue can be associated with one or more printers. The next job in the queue goes on the first free printer associated with the queue. Special forms and printer characteristics can be specified, and print jobs can be started, stopped, restarted, held, and aborted.

Process can allocate devices that are not for general use. For example, an interactive user might allocate a tape drive on which to back up some disk files. An application system might allocate 12 terminals, two disk drives, and a printer to be used exclusively for certain production work.

Each process is permitted an address space as large as four gigabytes (one of which is reserved) with an upper limit of one gigabyte on program size. In practice, processes use more modest address spaces; but even so, many processes, some requiring extensive space, can be running concurrently. VAX/VMS uses the following two mechanisms to provide sufficient physical memory for the many processes using the system:

- * **Paging** - The system allots physical memory to a process as needed up to a user-specified limit (typically in the ranges of 50 to 100 kilobytes for interactive users and 200 to 300 kilobytes for batch jobs). If memory in excess of the limit is needed, the system allows the physical memory requirements to expand to a quota and then releases some of the process code and data already in memory (taking care to preserve modifications) to make room for the new code and data. The released code and data are initially cached in memory in case they are needed again, but later they may be removed from physical memory (modifications being written to disk) depending on process directives and total system operations.