



SW8001

Basic System Package

RESUME

Resource allocation and the physical control of devices are handled by the Basic System Package, which is the software prerequisite of all programs run on the RC 8000 computer. The functions performed by this package include:

- Storage protection.
- Scheduling of computing time among parallel processes.
- Initiation, execution, and termination of processes.
- Interprocess communication and synchronization.
- Catalog handling and protection of backing-storage files.
- Device handling.

DESCRIPTION

The Basic System Package comprises the multiprogramming monitor, basic operating system, Network Control Program, and other software modules.

The monitor program allocates equal computing time to all active processes (logical computers) based on a modified round-robin scheduling strategy. This may be supplemented by the priority scheduling strategy of an operating system, such as MIPS/TS or BOSS (see data-sheets RCSL 42-i 1290 and 1291).

The basic operating system, called *s*, provides commands for process handling and initialization of the backing store.



Besides computing time, the monitor allocates primary storage, backing storage, peripheral devices, and other shared resources based on commands to s or another operating system.

The monitor also controls use of the backing-storage catalog. Application programs are executed in an environment in which the user can access his own files, files in specified projects, and system files, but not the files of other users.

The Network Control Program (NCP) handles devices connected to the device controller, giving application programs a uniform interface to different types of peripheral devices.

SOFTWARE PREREQUISITES

None.