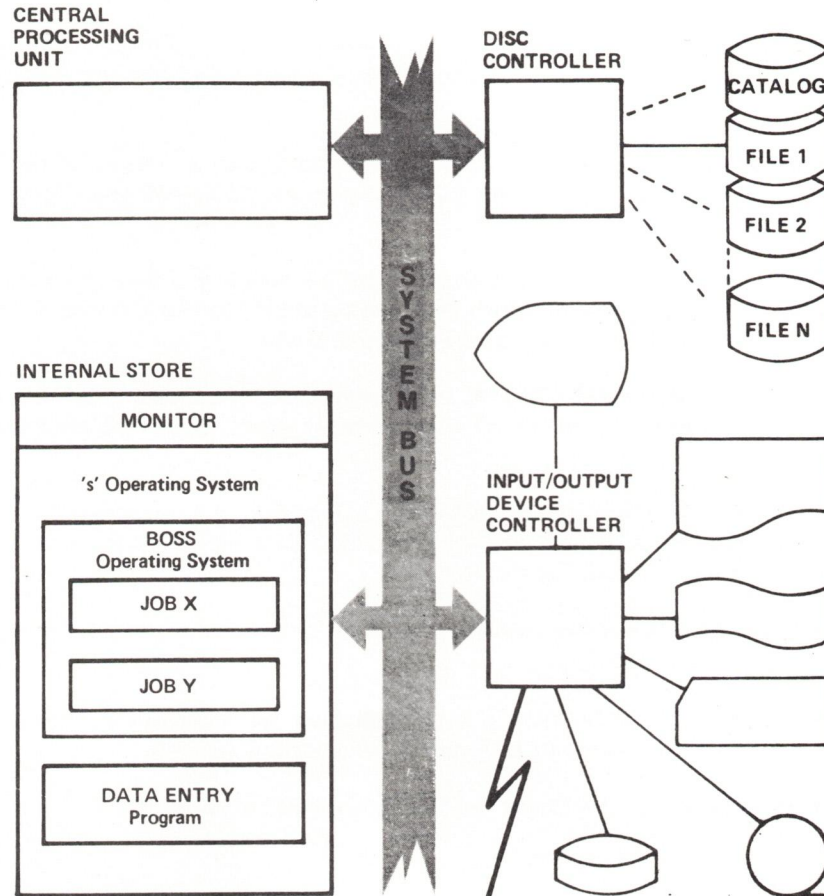




# RC 8000 BASIC SOFTWARE



## GENERAL

The basic software is one of the keys to the great flexibility and large capacity of RC 8000 computers. Basically all programs are executed in a time-sharing mode in which up to 20 parallel programs in turn are allocated a slice of computing time. Computer resource allocation and program execution strategy is performed by the operating system. This structure allows several operating systems with different strategies and purposes to be in operation at the same time. New operating systems can be implemented as easily as other programs, without modification of the basic software. The basic software comprises the following modules:

- MONITOR
- "s" OPERATING SYSTEM
- BOSS OPERATING SYSTEM
- FILE PROCESSOR
- UTILITY PROGRAMS
- FILE HANDLING SYSTEM
- DATA BASE MANAGEMENT SYSTEM
- MATHEMATICAL-STATISTICAL PROCEDURE LIBRARY
- TERMINAL SYSTEM
- NETWORK CONTROL PROGRAM
- COMPILERS

## CHARACTERISTICS

MONITOR is the nucleus of the basic software. It controls the initiation, execution and termination of parallel programs, and distributes slices of computing time among them. It takes care of reservation and initiation of sequential input/output devices and the use of catalogs and data areas on backing storage.

"s" OPERATING SYSTEM can on request from users allocate computer resources such as internal store, backing storage areas, and input/output devices for up to 20 parallel programs.

BOSS OPERATING SYSTEM is made for batch processing of jobs enrolled for execution from card readers, paper tape readers and terminals. BOSS can support up to 50 terminals from which independent users can prepare, edit and enroll jobs for execution.

FILE PROCESSOR controls the loading and execution of user programs, compilers and utility programs. It furthermore contains various routines for standard input/output operations.

UTILITY PROGRAMS are a collection of programs for tasks such as catalog, general file and data handling and for job control. An EDIT program for on-line/off-line editing of text strings is also included.

FILE HANDLING SYSTEM is a set of programs for the handling of data on magnetic tape and backing storage. The systems, which include programs for sorting and indexed sequential access, are well suited for administrative data structures.

DATA BASE MANAGEMENT SYSTEM is an application-independent data base system. The logic of the system is based on connected files in which the records are accessed by keys or links.

MATHEMATICAL-STATISTICAL PROCEDURE LIBRARY is a collection of routines covering basic problems such as: numerical solving of differential equations, matrix handling, Fourier transform, descriptive statistics etc.

TERMINAL SYSTEM is a communication procedure for on-line input/output in ALGOL programs.

NETWORK CONTROL PROGRAM is a program used for implementing the RC 8000 computer system as a host in the RCNET data communication network.

COMPILERS for ALGOL, FORTRAN and BASIC are available for RC 8000.