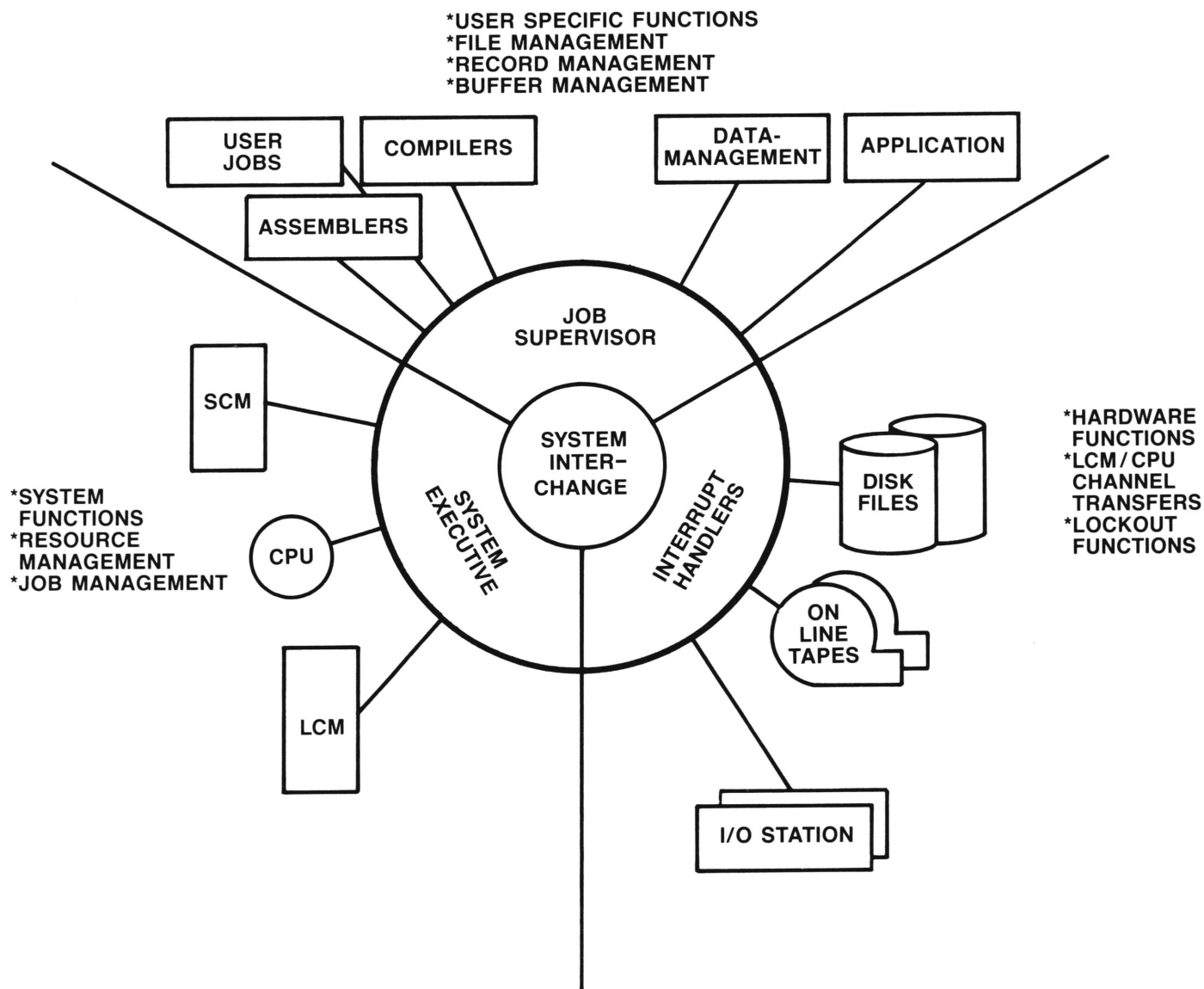# CONTROL DATA® CYBER 70™ SCOPE 2 OPERATING SYSTEM
For Cyber 70 Series / Model 76

CONTROL DATA
C O R P O R A T I O N

SCOPE 2 capitalizes on the distributive-processing architecture of the CDC® CYBER 70™ Series/Model 76 Computer System to provide the most effective throughput on the market today. When used with this computer, SCOPE 2 supports a wide range of commercial, data-management, and scientific applications on a multiprogramming basis. The software handles the requirements of local-batch, remote-batch and interactive modes of data processing by distributing such computing resources as memory, central and peripheral processors, and communications stations among all users contending for these resources.

The unique design of the CDC CYBER 70 Series/Model 76 Computer allows for a minimum portion of small core memory (SCM) to be used in performing operating-

system functions. Only 5120 words, need be dedicated to the operating system, including the hardware I/O buffers, exchange packages, and SCM system resident area. The remaining resident portions of the system library are maintained in large core memory (LCM), and the size of resident memory is determined by the customer. A variable number of jobs may be multiprogrammed within the remaining storage resources (SCM, LCM and mass storage). The central operating system consists of four parts:

Interrupt Handlers — Empty the SCM input and output buffers to and from larger buffers in LCM, and permit data-streaming between storage hierarchies.

System Executive — Performs task-oriented functions, including all scheduling resource allocation, I/O queue processing for all on-line devices and computer stations, and interfacing to the real-time monitor.

System Interchange — Serves as the clearing house for servicing requests and transfer control between other functional groups of the system.

Job Supervisor — Performs all job-oriented functions such as the handling of user requests; initiates the job; advances the job; job initiation, advancement and termination; and terminates the job. Also supports the management of files, records, and buffers. It is attached to each job and is swapped between memory hierarchies with the job.

Using the above elements as a nucleus, SCOPE 2 provides a common interface for streaming tasks between distributed magnetic tape, unit record, communication and computer stations. SCOPE 2 supports the software products available on the computer stations with its own powerful software products and facilities. These are:

- COBOL
- SORT/MERGE
- COMPASS (Comprehensive Assembly Language)
- FORTRAN
- FORTRAN EXTENDED
- LOADER
- DATA MANAGEMENT LANGUAGES
- SYSTEM UTILITIES
- INDUSTRY-STANDARD TAPE FILES AND RECORD FORMATS
- REAL-TIME/TIME-CRITICAL
- REMOTE JOB ENTRY
- CONVERSATIONAL TIME SHARING
- LINEAR PROGRAMMING LANGUAGES