RC 4000 COMPUTER®

SPECIFICATION

RC 4000 SOFTWARE

Time-Sharing Monitor
Controls the parallel execution of programs in the core store and the initiation of all input/output.

Algol Compiler
Translates Algol 60 source programs into binary object programs.

Fortran Compiler
Translates ISO Fortran source programs into binary object programs.

Slang Assembler
Translates programs written in the symbolic language Slang into binary object programs.

File Processor
Controls the loading and execution of compilers, editors, and other utility programs. Contains various routines for handling input/output in the standard manner.

Editor Program
Produces edited textstrings from original textstrings and a sequence of editing commands.

Debug Program
Lets the operator insert breakpoints in programs at run time in order to display and change the contents of registers and storage locations on a typewriter.

Mathematical Procedure Library
Contains numerical procedures in Algol covering basic problems.

Pert System
Produces time and resource schedules for projects of great complexity.

Process Control System
Includes typically a time-sharing monitor, operator's control program, flow integration and pulse count program, logging program, alarm scanning program, trend logging program, self-check program, and off-line process description assembler.

General File Maintenance and Sorting Programs
Facilitate the writing of programs for payrolls, invoicing, stock control, and the like.

Diagnostic Programs
Facilitate rapid repair of the central processor and all types of peripheral devices. The processor programs include self-checking of all instructions and the internal store. The peripheral programs include individual testing of all functions.

Development Plans
Apart from an Imp macroassembler currently being developed for the RC 4000, the development of hardware systems with requisite basic software is planned in such areas as: data transmission systems, multi-terminal/multi-access systems, multi-computer systems, and graphic input/output systems comprising drafting and display devices. A sizeable software development is also planned for a wide range of applications in connection with the coming installation of RC 4000 computers in Regnecentralen's service bureaux.

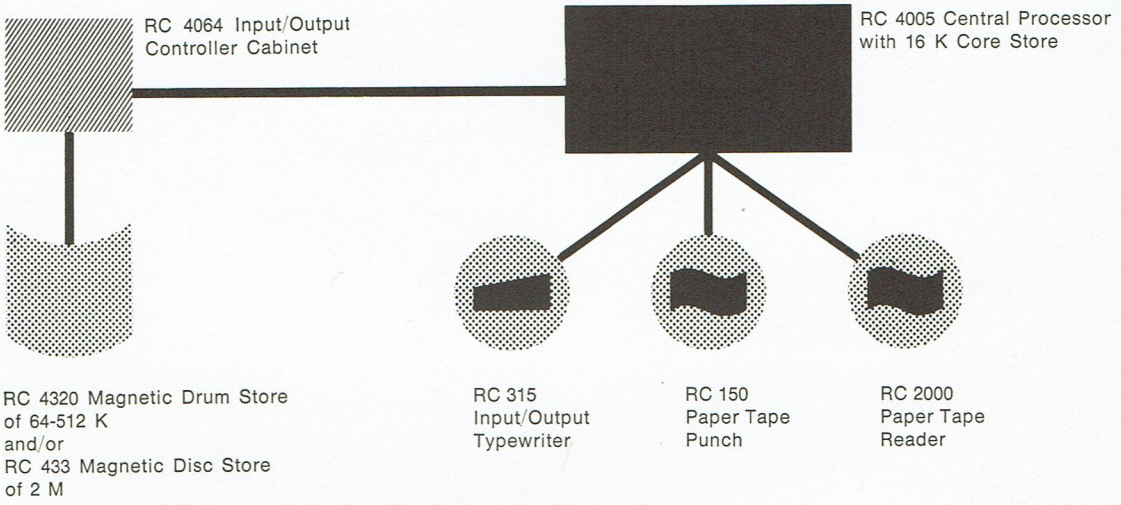
RCSL 82-H 0051. February 1970. Replaces RCSL 82-H 0003 and 0019.

STANDARD SOFTWARE PACKAGE

- Time-Sharing Monitor
- Algol Compiler
- Fortran Compiler
- Slang Assembler
- File Processor
- Editor Program
- Debug Program
- Mathematical Procedure Library

This package contains all the software needed for time-sharing and for programming in machine language and higher languages. It is suitable for a wide variety of applications including batch processing, multiple-console conversation, and real-time scheduling. The following minimum machine configuration is required in order to utilize the standard software package:

MINIMUM MACHINE CONFIGURATION



Apart from the devices mentioned in the diagram, the monitor program can at present administer:

- RC 405 Punched Card Readers
- RC 610 Line Printers
- RC 747 Magnetic Tape Stations
- RC 749 Magnetic Tape Stations
- RC 328 Teleterminals
- RC Process Control Units, for example, Digital Sense Terminal, Interrupt Expander (Register or Counter), Digital Output Terminal, and Analog Input Controller.

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