CONTROL DATA® CYBER 70™ SERIES MODEL 72 COMPUTING SYSTEM

Model 72 is the smallest of Control Data's® CYBER 70 family of compatible computers. This system can be used as a central computer for batch operations and/or as the nucleus for networks of interactive remote terminals. It is suitable in data management, scientific computation, commercial data processing and data communications. Due to hardware and software compatibility among all CYBER 70 systems, Model 72 serves as an expandable base for long-range growth plans.

The Model 72's Central Processor Unit (CPU) consists of a basic arithmetic unit with 24 operating registers. Character-handling instructions are included in the instruction repertoire. A second CPU can be included in a system configuration.

Up to 20 peripheral processor units (PPU's), each programmable, handle peripheral and input/output operations. Each PPU has its own 4K 12-bit word, 1-microsecond cycle memory. Twelve to twenty-four data channels are serviced by the peripheral processors. Data channels are bi-directional and each has a maximum data rate of two million characters per second.

A wide selection of central memory and extended core storage (ECS) options are available to the Model 72 user. Central memory is organized in logically independent banks of 4096 60-bit words with capacities from 32K words to 131K words.

ECS is arranged in logically independent multiphased banks. The transfer rate between ECS and central memory is up to 10 million 60-bit words per second where at least 500K words of ECS are available. ECS is available in sizes from 125K words to 2 million words and can be shared by separate CDC CYBER 70 Systems.

The following peripheral equipment is available for use with the CDC CYBER 70/Model 72:

Magnetic Tape Transports	Card Readers
Line Printers	Card Punches
Console Displays	Graphic Terminals
Rotating Mass Storage	Interactive Terminals
Paper Tape Punches	Remote Batch Terminals
Paper Tape Readers	

Interfacing equipment used with mass-storage devices and communication subsystems has core memory and is programmable. This allows distribution of control functions to these subsystems.

CDC'S SCOPE Operating System and KRONOS Time-sharing System each support the Model 72. These operating systems support the extensive software product set, which includes COMPASS, FORTRAN RUN, FORTRAN EXTENDED, COBOL, ALGOL, SORT/MERGE, BASIC, APT (numerical control for machine tools), OPHELIE (mathematical programming), and a comprehensive set of basic data management software.

SPECIFICATIONS

High-Speed Central Processor:
- Instruction Issue rates: For one CPU, .9 million instructions per second (MIPS)
- Instruction Issue rates: For two CPU's, 1.5 million instructions per second (MIPS)
- Basic arithmetic unit, with 24 operating registers
- Compare and move instructions
- Central exchange jump
- Central memory access priority
- Integer multiply
- Real-time clock

Programmable Peripheral Processors:
- 4K words (12-bit), 1 microsecond read/write memory
- Interlock Register

Central Memory (options):
- 32K, 49K, 65K, 98K or 131K, 60-bit words
- 1 microsecond read/write time

Extended Core Storage:
- Maximum data transfer rate — 10 million words per second.
- Distributive data path (DDP) — 480 bit data path connecting the input/output channel to ECS. The DDP is controlled by the peripheral processors. One data path is standard in an ECS configuration with expansion to four paths per DDP unit for simultaneous data transfer. Multiple DDP units (with up to four data paths per unit) can be configured in a CYBER 70 System.