processors

The Century central processing units (CPU) are composed of:

- The arithmetic logic unit (ALU)—contains the electronic circuitry necessary to make arithmetic computations and logical decisions.
- An internal memory (thin-film, short-rod)—temporarily stores data and instructions used by the ALU and by the input/output control.
- An input/output control section (I/O control)—contains the electronics that supervise data flow between the peripheral units and memory.

Termination of an input/output operation causes an interruption in processor functions, notifying the processor that a peripheral is ready to receive another instruction. This means that peripheral units need not be idle while the processor completes its functions. After the ALU selects the desired peripheral unit, it transfers control of I/O operations to the I/O control section which supervises and checks the transfer of data to and from memory. All I/O trunks are connected to the I/O control. This method of handling the transfer of data is the same for all Century Systems.

century integrated systems

CHARACTERISTIC	CENTURY 100 SYSTEM	CENTURY 200 SYSTEM
System Orientation	Magnetic File	Magnetic File
Central Processing Unit	ALU, Memory, I/O Control	ALU, Memory, I/O Control
Integrated Peripherals	Dual Spindle Disc, Card or Tape Reader, Medium Speed Line Printer	Input/Output Writer, Card or Tape Reader, High Speed Line Printer
Memory— Standard Optional	16, 384 Bytes 32, 768 Bytes	32,768 Bytes 65,536; 131,072; 262,144; 393,216; 524,288 Bytes
Memory Cycle Time	800 nanoseconds per character	800 nanoseconds per *two* characters
Index Registers	63	63
Disc Capacity Standard Optional	8.3 Million Bytes To Meet System Requirements	8.3 Million Bytes To Meet System Requirements
Disc Head Movement Time	45 milliseconds (average)	45 milliseconds (average)
Input/Output Trunks Standard Optional	2	4 (2 high speed optional) 8
Trunk Positions Standard Optional	16	20 52
Simultaneity	3-Way (2 Input/Output— 1 Compute)	5 or 9-Way
Card Read Rate	300 CPM	300 CPM
Card Capacity	1000	1000
Tape Read Rate	1000 CPS	1000 CPS
Tape Capacity	To 350 Feet	To 350 Feet
Print Rate	450 to 900 lpm	1500 to 3000 lpm

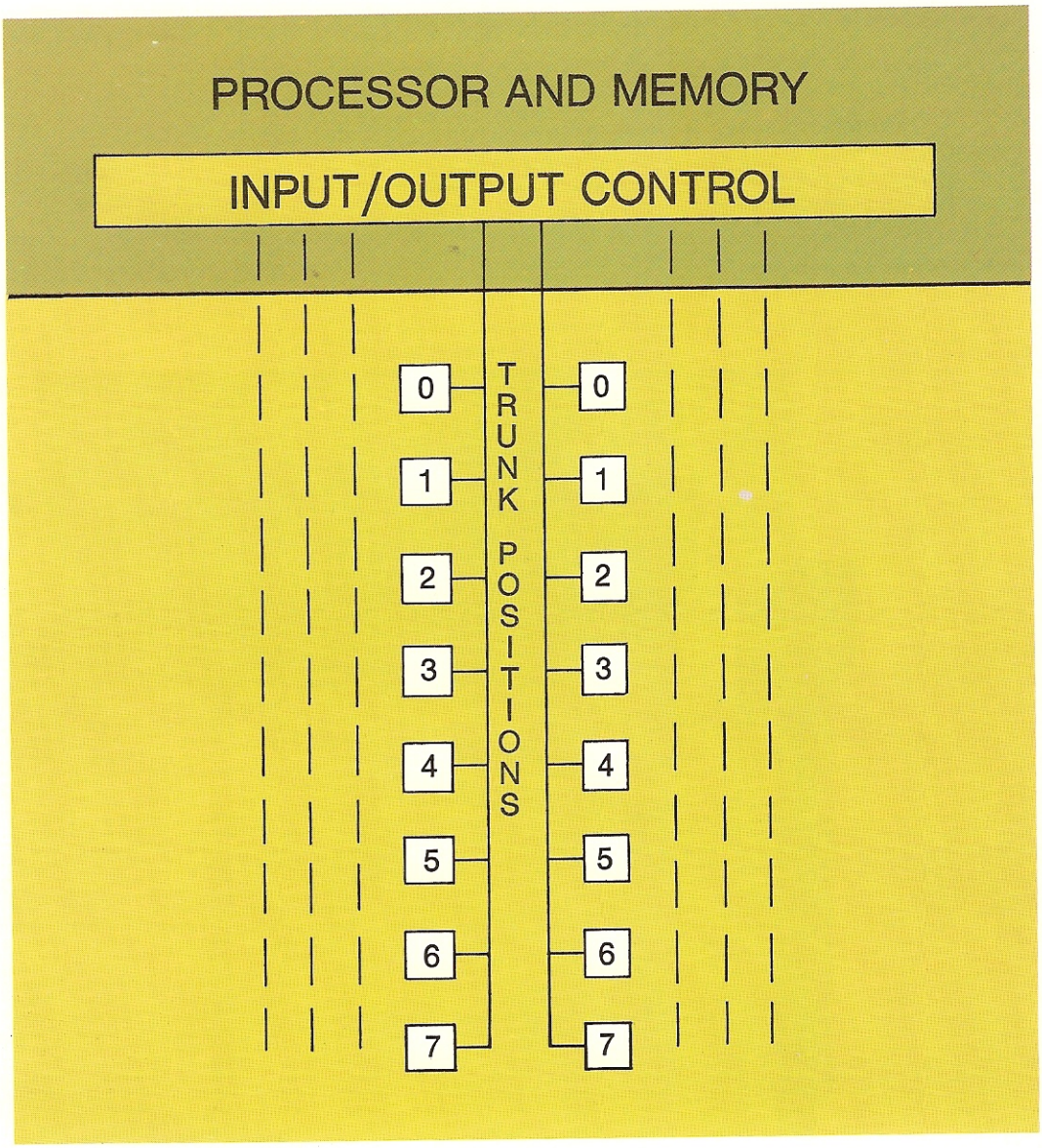
common trunk philosophy

All members of the Century Series use standard interfacing to a common input/output trunk. Interfacing is the common boundary between the processor and the peripheral units.

The interface, located in each peripheral unit relieves the central processor of the burden of handling compatibility problems. The ability to interface all peripheral units to a standard input/output trunk (common trunk) permits the processor to communicate with all peripheral units in the system as though they were identical. All units are controlled with the same hardware command, simplifying both programming and operating systems.

The common trunk and its associated input/output concept enables all members of the Century Series to utilize any freestanding peripheral, restricted only by the input/output speed of a given system. Users can expand from any system in this series to a larger system with a minimum of conversion costs.

From two to eight common input/output trunk lines, with eight positions each, are available in the Century Series. Certain positions and trunks are dedicated to integrated units, depending on the member of the series. All other positions are available for use with any freestanding peripheral whose rated speed is less than the throughput rate of the trunk.



— TRUNK LINES ON MINIMUM SYSTEM

-- TRUNK LINES AVAILABLE ON OTHER MEMBERS OF FAMILY