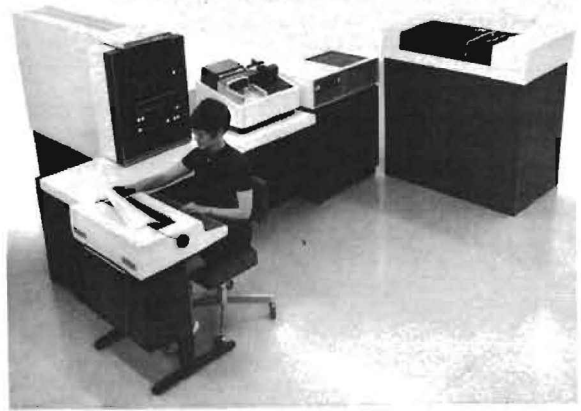


product spotlight



The Memorex Computers *

The company that has grown from a garage-based manufacturer of computer tape to an \$80 megabuck international corporation in 11 hectic years has built its first computers. Tired of attaching 2311-type disc units to hundreds of IBM 360 model 20s and watching the majority of the revenue from those installations head for White Plains, Memorex has decided to offer the 360/20 user an alternative. And if the performance of the MRX models 40 and 50 is anywhere near as impressive as the system specifications read, there might be a real assault coming on one of IBM's more important revenue bases.

For openers, there are eight individual processors on the 40 and 50. Four control I/O operations, and four do the processing. The processors are managed by a microcoded control store and are multiplexed to share addressing and data paths. There are approximately 150 basic instructions in the CPU, which has a two-byte data path.

The difference between the two models is the speed of the all-MOS memory—1.8 usec for the 40 and 900 nsec for the 50. All arithmetic, except floating-point, is done in the hardware. Rounding out the mainframe are a number of interregister instructions, 16 general-purpose registers, and a choice of channels: a 555 KB/second selector channel equivalent, and an 1100 KB/second channel that can be compared

to a multiplexor channel.

The designers believe that small systems in this category are often hamstrung in their performance for a lack of I/O capability rather than because the CPU's aren't powerful enough. That's the thinking behind these computers: Cut down on task switch time, and make the channels fast. A full range of peripherals will be offered for attachment to those channels.

For software, there will be a disc-based batch operating system called MRXOS. A telecommunications sub-monitor is also available. FORTRAN, COBOL, and RPG are the languages offered, and there is an emulation program for the 360/20 the MRX machines hope to replace. This program runs in one of the two multiprogram partitions in the machine, so the computer doesn't have to be dedicated to emulation. Except for the high-level languages, the software is bundled.

Pricing was still being pegged for the model 40 at press time. But a model 50 with multiprogramming and remote processing capability, 48K of memory, console, 600-lpm printer, three 29-megabyte disc drives, and two asynchronous and one synchronous communication lines will be around \$6K/month. If the 40 comes in at a price substantially under that, it could be a good competitor to the IBM System/3. First shipments are scheduled for September. MEMOREX CORP., Santa Clara, Calif. For information:

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