## IBM System/3 New Product Announcement

SYSTEM/3 MODEL 12 INTRODUCED, SOME PRICES CUT: On July 7, 1975, IBM took several steps to bolster its System/3 market (and very possibly reply to Honeywell's recently announced Liberator 3 system). First, the Model 12, which many analysts will classify as either an improved, MOSFET (Metal Oxide Semiconductor Field-Effect Transistor) memory version of the Model 10 or a cost-reduced Model 15, was introduced. Second, purchase prices on the older, core-memory Model 6 and 10 CPU's were dropped by about 15 percent, a move that will probably induce purchase of many systems that are currently on lease. Third, the Term Availability Plan (TAP), introduced with the System/32 and offering about a 5 percent rental rate reduction in return for a three-year commitment, was extended to the MOS-memory Models 8, 12, and 15. Finally, some peripheral enhancements were made to Models 8 and 15.

The new Model 12 is available with three sizes of 1.52-microsecond MOS memory: 32K, 49K, and 65K. It can utilize the 3340 Direct Access Storage Facility (91.9 million characters of storage), and thus becomes the smallest member of the line to do so. It is slated for delivery in June 1976.

The range of configurations available to the Model 12 user includes 80- or 96-column punched cards, magnetic media (card and diskette), a magnetic tape subsystem, several printer options, and a variety of communications alternatives, including the newly announced Local Display Adapter. The Local Display Adapter, with three display increments, allows for the attachment of up to twelve 3270 devices (3277's, 3284's, 3286's, and 3288's) in any combination.

Model 12 programming is based on and is compatible with support for the Model 10. Major enhancements are Print Spooling and 3340 support. Print Spooling is a feature designed to increase throughput by storing a job's printed output on a 3340 in a special area called the print queue. Thus, printed output is performed at disk I/O speed. A utility program, the Spool Writer, selects jobs to be printed from the print queue in user-specified order.

Pricing for the new Model 12 is as follows:

Model	Description	Purchase Price	MAC*	TAP**	Monthly Maint.
B16	CPU with 32KB	\$50,465	\$1,328	\$1,265	\$215.00
B17	CPU with 49KB	54,465	1,428	1,360	220.00
B18	CPU with 65KB	58,465	1,528	1,455	225.00
Local Display Adapter:					
4701	Basic Attachment Feature	1,475	53	50	3.00
4702	Local Display Adapter	6,005	158	150	24.50
4704	Display Increment	1,405	37	35	1.00

<sup>\*</sup> Monthly Availability Charge (including maintenance).

A typical Model 12 card system will consist of a 32K Processing Unit, a 5203 Model 1 Printer and attachment, a 5424 MFCU and attachment, a 3340 Direct Storage Access Facility and Data Module, and a 5471 Printer Keyboard. A typical cardless system will replace the 5425 and attachment with a 3741 Data Station and attachment. Approximate prices for these two systems are:

	Purchase Price	MAC	TAP
Card System	\$125,936	\$3,458	\$3,234
Cardless System	127 506	3 496	3 230

The purchase prices of certain System/3 I/O attachments have also been reduced by about 15 percent. For example, the Dual Feed Carriage Control for a 5203 Printer, feature 3480, was \$1,310 and is now \$1,115. Other attachments have been split into basic and specific attachments and separately priced. An example is the 1403 Model 5 Printer Attachment (4135), which was formerly priced at \$4,700 and is now priced at \$3,830 (4160 Printer Basic Attachment for the 1403) plus \$245 (4135 Model 5 Printer Attachment for the 1403). The saving here is about 13 percent. The same rule applies to 3411 Magnetic Tape Unit Attachments.

Other announcements include the availability of the Local Display Adapter on the Model 8 (a maximum of 12 devices) and Model 15 (a maximum of 30 devices), and a restructuring of the 1403 Printer Attachment on the Model 15 (as discussed for the Model 12).  $\Box$ 

<sup>\*\*</sup>Term Availability Plan (including maintenance).

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SYSTEM/3 MODEL 15 ENHANCEMENTS: On April 7, 1975, IBM announced "C" models of the System/3 Model 15 with from 160K to 256K bytes of main memory in 32K-byte steps, Model 15 configurations which can use the 3741 (diskette) Data Station in place of a system's card reader, and "Multileaving" Remote Job Entry Work Station (MRJE/WS) software support for a Model 15 connected to a System/360 or 370 operating under HASP, OS/VS1, or OS/VS2.

The MRJE/WS support for the Model 15 is program, data, and transmission compatible with that for System/3 Models 6, 8, and 10. "Multileaving" in the MRJE/WS phrase means that the software supports concurrent terminal device operation. MRJE/WS is a no-charge package.

The new Model C processing units are available under IBM's standard monthly rental, purchase, and maintenance terms, as follows:

Model	Description	Purchase Price	Monthly Maint.*	Monthly Rental
C21	CPU with 160KB	\$125,500	\$260	\$3,110
C22	CPU with 192KB	133,500	265	3,310
C23	CPU with 224KB	141,500	270	3,510
C24	CPU with 256 KB	149,500	280	3,710

<sup>\*</sup>Included in monthly rental.

"Cardless" Model 15 systems must have a 3741 Data Station, and a special feature (#1601, Channel Terminator) is required to properly fulfill electrical needs when the card reader is removed. The feature costs \$48 per month, or \$2,335 as a purchased item, with a monthly maintenance charge of \$1.

IBM announced that the C Models will be available in June 1975, the MRJE/WS support in September, and "cardless" support in October. All features and I/O devices for the B models will also be available on the C models (e.g., 3741's, 3340 "Winchester" disks, etc.), and at the same prices.

Also, on April 1, IBM revealed that major software enhancements for the System/3 Model 15 will become available on June 27, 1975. These include new SCP (System Control Programming) features, spooling improvements, system operation improvements, Communications Control Program (CCP) enhancements, and enhancements to System/3 COBOL and FORTRAN.

SCP will be upgraded to support 3340 Direct Access Storage Facilities (Winchester disks), and also direct attachment of the 3741 Data Station.

There are no less than seven spooling enhancements, which an IBM spokesman reports were welcomed with the other software announcements at a meeting of COMMON in Minneapolis on Monday, April 7. They are: 1) a new optional parameter under the START PRT operator command which allows all output in the print queue of a specified forms type to be printed; 2) a CHANGE command which can be used to change forms type or number of copies in a job or step in the print queue, or 3) card types or number of copies in the punch queue; 4) allowed specification of a disk (spooling device) track group size of "1" (useful with the 3340's, due to their higher per-track capacity); 5) an optional ROLL parameter on the START RDR operator's command which allows cards to be selected to all four stackers on a multifunction card unit (MFCU) before operator intervention is required (previously the operator had to stand by to empty each individual stacker as it filled); 6) a display of the print queue that now shows the number of pages for each step; and 7) ability to support spooled card readers and punches in a mix of 80- and 96-column types.

One of the system operation enhancements for the Model 15 adds a feature that the Model 10 has always enjoyed, and is really a correction: the card units and printers now start automatically when readied, without the operator having to walk back to the CPU and start them from there. (But this must be accompanied by an engineering change on the CPU.) Also, the first operands of the CANCEL and DUMP operator control commands have been eliminated as acceptable commands; this eliminates errors by operators in some cases.



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The most significant operating enhancement is the new PTY operator's control command. It lets the operator change priorities of the spooling partition, partition 1, and partition 2. Previously, the spooling partition always had the highest priority, but users with data communications applications may wish another arrangement.

Communications improvements include reduced multiline/multipoint IOCS (input/output control software) requirements (lowered about 1200 bytes), the capability for an operator to broadcast one message to all terminals in one operation, and file-sharing improvements.

FORTRAN will have support for multi-volume magnetic tape files. COBOL will allow work files on the main data area of a 3340 disk; and, through the ASSIGN clause of the SELECT statement, the user will be able to define an index file as "update" without additions.

The enhanced disk sort program now allows input from up to eight files (instead of the previous one file), and the files can be any combination of disk, tape, cards, and/or diskette. The sorting techniques have also been changed to yield improved performance even if the available high-performance disk drives are not used.

In conjunction with all of the foregoing, IBM's February 7 announcement of support for the 3741 Data Station as a unit record device and as a terminal can be seen in perspective.

Finally, the System/3 Model 15, as well as Models 6, 8, and 10, have received new copy utilities for 3741's (an IBM announcement of March 13, with availability on April 25, 1975).  $\Box$