

IBM System/370 Model 145

▷ high percentage of these users will stay “locked in” to IBM for several more years.

Another Model 145 compatibility feature facilitates conversions from DOS to OS by making it possible to run DOS jobs under OS control.

SUPPORT

The System/370 computers will receive essentially the same “unbundled” support as the System/360, which means that users must now pay separately for most of the educational courses and technical support that were formerly included in IBM’s equipment prices.

Most of the existing System/360 software facilities were delivered prior to IBM’s unbundling announcement in June 1969 and are therefore available to System/370 users at no additional cost. But most System/370 users will find it advantageous to use the improved assembler, compilers, sort routines, and other software products that were announced along with the System/370—and these new products are separately priced. Thus, it is becoming apparent that IBM computer users will henceforth be subjected to subtle pressures toward continual upgrading—to IBM’s economic advantage—of their software as well as their hardware.

WHO’LL BUY THE MODEL 145?

Overall, the Model 145 shapes up as a highly suitable upgrade machine for Model 40 installations looking for dramatically improved performance at a modest increase in cost.

But for Model 25 and 30 users, the jump to a Model 145 is a large and expensive one—probably well beyond the economic means and performance needs of most current users of a Model 25 or 30. For these users, IBM introduced the equally impressive System/370 Model 135 in March 1971.

System/360 Model 50 users are certain to view the Model 145 with great interest. For them, the new model represents an opportunity to get significantly higher performance together with modest reductions in their equipment costs. IBM will naturally be anxious to prevent—or at least defer—this type of conversion, and it will be interesting to see what strategy and tactics it will employ. As a probable first step in this direction, IBM has already acknowledged that deliveries of Model 145 systems with more than 262K bytes of main storage will not begin until March 1972, seven months after the smaller sizes.

The appeal of the Model 145 is by no means limited to current users of the System/360. The Model 145’s

▶ **TAPE/DISK SYSTEM:** Consists of 262K Model 145 Processor with Integrated File Adapter and Two Selector Channels, 2319 Disk Storage Facility with one additional 2312 Disk Drive (4 drives, 116 million bytes total), eight 2401 Model 5 Magnetic Tape Units (120K) and dual-channel tape control, 2540 Card Read Punch, 1403 Model N1 Printer, and 3210 Model 1 Console Printer-Keyboard. Monthly rental and purchase prices are approximately \$24,600 and \$1,096,000 respectively.

EXPANDED TAPE/DISK SYSTEM: Consists of 524K Processor with four Selector Channels, Block Multiplexer Channel and Word Buffer Features, 3346 Main Storage Frame, 3046 Power Unit, eight-drive 3330 Disk Storage Facility (800 million bytes), twelve 2420 Model 5 Magnetic Tape Units (160KB) and two tape controls, two 2540 Card Read Punches, two 3211 Printers, and 3215 Console Printer-Keyboard. Monthly rental and purchase prices are approximately \$45,300 and \$1,999,700, respectively.

SOFTWARE: System/360 software which was being distributed by the IBM Program Library as of June 23, 1969, will be available to System/370 users at no additional charge. All subsequent IBM programming announcements (except for certain modifications and improvements of existing IBM programs) are designated as either System Control Programming or Program Products.

System Control Programming provides functions which are fundamental to the operation and maintenance of a system (e.g., loading, scheduling, supervising, and data management) and is available without charge.

Program Products are related to the application of a system to user tasks (e.g., compilers, utility programs, and application programs). These are offered on an individual-charge basis (see Report 70C-491-04).

SUPPORT: IBM Systems Engineering assistance is available to Model 145 users at a basic rate of \$28 per hour.

EDUCATION: IBM “Professional Courses” are now individually priced. System Features Instruction is offered to users of IBM data processing equipment at no charge. Customer Executive Seminars, Industry Seminars, and promotional sessions are still offered at no charge by IBM invitation.

CONTRACT TERMS: The standard IBM rental contract includes equipment maintenance and entitles the customer to up to 176 hours of billable time per month. Time used in excess of that amount is charged for, on all machines equipped with meters, at an extra-use rate. This rate, for most System/370 components, is 10% of the basic hourly rate (i.e., 10% of 1/176 of the monthly rental for each hour of extra use).

IBM’s new fixed-term lease plan, introduced on June 1, 1971, offers price reductions of 8 or 16 percent from the short-term monthly rental rates to users willing to sign a 12-month or 24-month contract, respectively. The fixed-term leases apply to nearly all of the System/370 magnetic tape, disk, drum, and printer units and to the associated control units and features, but not to the mainframes or other types of peripheral devices. Extra-use charges are eliminated under these leases, and up to two years of purchase option accruals are available. ■

advanced technology and cost-effectiveness, coupled with its proven peripheral equipment and software, make it one of the most attractive medium-scale computers currently on the market. This combination of virtues is likely to attract many shrewd computer buyers into the IBM tent for the first time. □

IBM System/370 Model 145 EQUIPMENT PRICES

		Purchase Price	Monthly Maint.	Rental (short-term lease)*
PROCESSORS AND MAIN STORAGE				
3145	Processing Unit			
	Model FED; 114,688 bytes of program storage	540,240	1,210	11,255
	Model GE; 163,840 bytes of program storage	583,440	1,250	12,155
	Model GFD; 212,992 bytes of program storage	626,640	1,290	13,055
	Model H; 262,144 bytes of program storage	669,840	1,330	13,955
	NOTE: 393,216 bytes of program storage requires a 3145 Model H plus a 3345, 3046, and 4901; 524,288 bytes of program storage requires a 3145 Model H plus a 3346, 3046, 4901, and 4902.			
3345	Main Storage Frame; 131,072 bytes	138,240	120	2,880
3346	Main Storage Frame; 262,144 bytes	252,480	220	5,260
3046	Power Unit (required for 3345 or 3346)	15,550	33	324
4901	Main Storage Frame Adapter (required on 3145 for attachment of 3345 or 3346)	1,005	2	21
4902	Main Storage Frame Adapter Expansion (required on 3145 for attachment of 3346)	1,005	1	21
PROCESSING UNIT FEATURES AND CHANNELS				
Block Multiplexer Channels:				
1421	For standard Selector Channel	NC	NC	NC
1422	For 2nd Selector Channel	NC	NC	NC
1423	For 3rd Selector Channel	NC	NC	NC
1424	For 4th Selector Channel	NC	NC	NC
1850	Channel-to-Channel Adapter	13,730	13	286
3274	Direct Control	6,190	4	129
3910	Floating-Point Instructions	NC	NC	NC
4457	1401/1440/1460 Compatibility	NC	NC	NC
4458	1401/1440/1460, 1410/7010 Compatibility	NC	NC	NC
4650	Integrated File Adapter (required for 2319)	28,320	49	590
Additional Multiplexer Subchannels:				
4951	32 subchannels	NC	NC	NC
4952	64 subchannels	NC	NC	NC
4953	128 subchannels	NC	NC	NC
4954	256 subchannels	NC	NC	NC
6982	Selector Channel—2nd	11,660	17	243
6983	Selector Channel—3rd	11,660	17	243
6984	Selector Channel—4th	11,660	17	243
7844	Console Printer Adapter for 3210 Model 1	6,480	4	135
7845	Console Printer Adapter for 3210 Model 2	5,180	6	108
7855	Console Printer Adapter for 3215	9,070	7	189
8810	Word Buffer	10,365	6	216
3210	Console Printer-Keyboards; 15 char/sec			
	Model 1; for local use	5,600	85	175
	Model 2; for remote use	5,760	90	180
3215	Console Printer-Keyboards; 85 char/sec	8,000	55	200

* Rental prices include equipment maintenance.

NC: No Charge.

NOTE: Please refer to the IBM System/360 Equipment Prices (Report 70C-491-03) for prices of the peripheral equipment and IBM Program Products that can be used with a System/370 Processing Unit.

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IBM System/370 Models 155 & 165
EQUIPMENT PRICES

		<u>Purchase Price</u>	<u>Monthly Maint.</u>	<u>Rental (short-term lease)*</u>
PROCESSORS AND MAIN STORAGE				
3155	Processing Unit (for Model 155 system; requires 3360 Mod. 1, 2, or 3 Processor Storage)			
	H; 262,144 bytes	959,040	2,160	19,980
	HG; 393,216 bytes	960,240	2,160	20,005
	I; 524,288 bytes	961,440	2,160	20,030
	IH; 786,432 bytes	984,960	2,170	20,520
	J; 1,048,576 bytes	987,360	2,170	20,570
	JI; 1,572,964 bytes	1,070,400	2,240	22,300
	K; 2,097,152 bytes	1,096,320	2,250	22,840
3165	Processing Unit (for Model 165 system; requires 3360 Mod. 4 or 5 Processor Storage)			
	I; 524,288 bytes	1,710,720	3,960	35,640
	J; 1,048,576 bytes	1,715,760	3,970	35,745
	JI; 1,572,864 bytes	1,736,640	4,000	36,180
	K; 2,097,152 bytes	1,752,000	4,050	36,500
	KJ; 3,145,728 bytes	1,803,840	4,150	37,580
3066	System Console (required in Model 165 system)	160,560	460	3,345
3067	Power and Coolant Distribution Unit (required in Model 165 system)	119,040	110	2,480
9447	208/230-volt Motor Generator Set (for Model 165)	15,000	—	Purchase only
9449	440-volt Motor Generator Set (for Model 165)	15,000	—	Purchase only
3360	Processor Storage			
	Mod. 1; 262,144 bytes (for Model 155)	132,000	290	3,000
	Mod. 2; 393,216 bytes (for Model 155)	198,000	435	4,500
	Mod. 3; 524,288 bytes (for Model 155)	264,000	580	6,000
	Mod. 4; 262,144 bytes (for Model 165)	132,000	290	3,000
	Mod. 5; 524,288 bytes (for Model 165)	264,000	580	6,000
PROCESSING UNIT FEATURES AND CHANNELS				
For 3155 Processing Unit (Model 155):				
1433	Third Block Multiplexer Channel	14,175	15	405
1434	Fourth Block Multiplexer Channel	13,230	12	378
1435	Fifth Block Multiplexer Channel	6,615	6	189
1850	Channel-to-Channel Adapter	13,230	10	378
3274	Direct Control	3,240	5	108
3700	Extended Precision Floating Point	9,070	20	189
3950	IBM 1401/1440/1460/1410/7010 Compatibility	17,280	20	432
4990	Second Byte Multiplexer Channel	14,175	15	405
5450	OS/DOS Compatibility	10,800	20	270
7844	Adapter for 3210-1 Printer/Keyboard	7,775	10	162
7845	Adapter for 3210-2 Printer/Keyboard	8,785	10	183
7855	Adapter for 3215 Printer/Keyboard	10,365	10	216
3210	Console Printer-Keyboard (for Model 155)			
	Mod. 1; 15 char/sec; local	5,600	85	175
	Mod. 2; 15 char/sec; remote	5,760	90	180
3215	Console Printer-Keyboard; 85 char/sec (for Model 155)	8,000	55	200
For 3165 Processing Unit (Model 165):				
1432	Buffer Expansion (to 16K bytes)	77,760	75	1,620
3850	Extended Channels	23,280	90	485
4520	High-Speed Multiply	134,640	150	2,805
7117	IBM 7070/7074 Compatibility	150,720	250	3,140
7118	IBM 7080 Compatibility	150,720	250	3,140
7119	IBM 709/7090/7094/7094II Compatibility	150,720	250	3,140
2860	Selector Channel (for Model 165)			
	Mod. 1; one channel	97,855	55	2,100
	Mod. 2; two channels	139,435	90	2,995
	Mod. 3; three channels	181,120	120	3,895
1850	Channel-to-Channel Adapter (for 2860)	9,455	3.75	225
2870	Byte Multiplexer Channel (for Model 165)	103,500	97	2,195
6990	Selector Subchannel—First (for 2870)	17,400	15	400
6991	Selector Subchannel—Second (for 2870)	10,585	10	250
6992	Selector Subchannel—Third (for 2870)	10,585	10	250
6993	Selector Subchannel—Fourth (for 2870)	10,585	10	250
2880	Block Multiplexer Channel (for Model 165)			
	Mod. 1; one channel	152,280	450	3,240
	Mod. 2; two channels	218,080	600	4,640
7850	Two-Byte Interface (for 2880)	17,765	8	378

* Rental prices include equipment maintenance.

NOTE: Please refer to the IBM System/360 Equipment Prices (Report 70C-491-03) for prices of the peripheral equipment and IBM Program Products that can be used with a System/370 Processing Unit.