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PERIPHERALS/TERMINALS

DEVICE	DESCRIPTION	SPEED
MAGNETIC TAPE EQUIPMENT		
3410-1	9-track, 12.5 ips, 1600 bpi	20 KB
3410-2	9-track, 25 ips, 1600/800 bpi	40/20 KB
3410-3	9-track, 50 ips, 1600/800 bpi	80/40 KB
3411-1	9-track, 12.5 ips, 1600 bpi (includes controller)	20 KB
3411-2	9-track, 25 ips, 1600/800 bpi (includes controller)	40/20 KB
3411-3	9-track, 50 ips, 1600/800 bpi (includes controller)	80/40 KB
CARD EQUIPMENT		
5424-A1	Multi-Function Card Unit, reads, punches, prints, 96 columns	250/60 cpm
5424-A2	Multi-Function Card Unit, reads, punches, prints, 96 columns	500/120 cpm
1442-6	Card Read Punch, 80 columns	300/60 cpm
1442-7	Card Read Punch, 80 columns	400/120 cpm
2501-A1	Reader, 80-columns	600 cpm
2501-A2	Reader, 80-columns	1,000 cpm
2560-A1	Multi-Function Card Unit, reads, punches, prints, 80-column	500/120 cpm
2560-A2	Multi-Function Card Unit, reads, punches, prints, 80-column	310/90 cpm
PRINTERS		
5203-1	96, 120 or 132 columns chain, 48 characters	100 lpm
5203-2	96, 120, or 132-columns, chain, 48 characters	200 lpm
5203-3	96, 120, or 132 columns, chain, 48 characters	300 lpm
1403-2	132-columns, chain/train, 48 characters	600 lpm
1403-5	132-columns, chain/train, 48 characters	465 lpm
1403-N1	132-columns, chain/train, 48 characters	1,100 lpm
OPTICAL READERS		
1255-1	MICR reader, 6 stackers	500 dpm
1255-2	MICR reader, 6 stackers	750 dpm
1255-3	MICR Reader, 12 stackers	750 dpm
3881-1	Mark Reader, on-line	4,000 to 6,000/hour
3881-2	Mark Reader, off-line	3,700 to 5,400/hour
PRINTER-KEYBOARD		
5471	44-Key typewriter-style Console	15.5 cps

▶ sequential or random. The optional Magnetic Tape Feature enables Disk RPG II programmers to handle sequential input and output files on magnetic tape; the records must be fixed length, and may be either blocked or unblocked and in either EBCDIC or ASCII code. The 5445 Disk Storage Drive Feature allows RPG II users to process sequential, indexed, or direct data files on 5445 Drives.

RPG II TELECOMMUNICATIONS FEATURE: This optional extension of either Card or Disk RPG II facilitates the transmission and reception of binary synchronous data over voice-grade or high-speed communications lines. The programmer fills out an RPG II Telecommunications Specification Sheet, which specifies the functions to be performed. The feature permits a System/3 equipped with the BSCA to operate in any of the following communications modes; receive only, transmit only, receive with conversational reply, transmit with conversational reply, or alternate transmit and receive file. The System/3 can function as a terminal in one of three types of networks: point-to-point switched, point-to-point nonswitched, or multipoint.

RPG II AUTO REPORT FEATURE: This optional enhancement of Disk RPG II is a precompiler that reduces the coding effort required to prepare report programs. A single Auto Report output field specification written by the programmer can result in the generation of RPG II statements to indicate printing with editing, insert column headings, control spacing and horizontal alignment of the data, define total fields, accumulate totals by control levels, and flag total lines with asterisks. The Auto Report functions may be specified for only one printer file in any RPG II program. Auto Report also provides a COPY statement that permits RPG II source statements to be ▶

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▶ copied from a disk library into source programs that are about to be compiled.

Model 15 RPG II provides all the facilities of Model 10 Disk RPG II plus device-independent data mangement variable-length magnetic tape records, support of the 2501 Card Reader, 2560 MFCM, and 3277 Display Station, and several other new facilities. In addition, four features which are separately priced options for the Model 10 are included in the price of Model 15 RPG II: Telecommunications, Auto Report, Magnetic Tape support, and 5445 Disk Storage support.

COBOL: The System/3 Subset ANS COBOL Compiler supports these six modules of the American National Standard COBOL Language: Nucleus (Level 1), Sequential Access (Level 1), Random Access (Level 1), Table Handling (Level 2), Segmentation (Level 1), and Library (Level 1). The compiler also supports certain elements of higher-level ANS COBOL modules and some IBM extensions. The ANS Sort and Report Writer modules, however, are not implemented. System/3 COBOL is upward-compatible with compilers for the System/360 and 370, and is a superset of IBM 1130 COBOL. The Model 15 COBOL compiler provides all the facilities of System/3 Model 10 COBOL, plus the ability to use the SCP Roll-in/Roll-out routines, support of multivolume indexed disk files, and support of the 2501 Card Reader, 2560 MFCM, and 3277 Display Station.

FORTRAN: The System/3 Disk FORTRAN IV compiler accepts source programs written in the IBM System/360 Basic FORTRAN IV language, which encompasses American National Standard Basic FORTRAN. It also accepts programs written in IBM 1130 Basic FORTRAN IV with minor modifications. Language extensions beyond the Basic FORTRAN level include the DEBUG facility, the IMPLICIT statement, the relational IF statement, and explicit length specification for the INTEGER and REAL Type statements. Also included are commercial subroutines which perform essentially the same functions as the IBM 1130 Commercial Subroutine Package. The Model 15 FORTRAN compiler provides all the facilities of System/3 Model 6 and Model 10 FORTRAN, and also supports the new I/O devices available for the Model 15.

BASIC ASSEMBLER: Converts programs coded in a symbolic assembly language into executable object programs. Creates stand-alone programs that have no defined interfaces with the other System/3 software support. May be used to assemble relocatable subroutines for use with Card or Disk RPG II programs. The Model 15 Basic Assembler provides all the facilities of the Model 10 Basic Assembler, plus mnemonic operation codes to support the new Model 15 instructions and several other minor improvements.

DISK SORT: Sorts disk files into either ascending or descending sequence. Accepts files organized in sequential, indexed, or direct fashion. Can perform a full-record sort, a tag sort (yielding a file of three-byte record addresses arranged in the desired sequence), or a "tagalong" sort (yielding a sequenced file of records containing only the key fields and data fileds specified by the user). The Model 15 Disk Sort program is functionally identical to the Model 10 Disk Sort with the 5445 Disk Storage Drive feature. Up to four 5445 drives are supported for use as input, output, or work files.

TAPE SORT: Sorts fixed-length records on magnetic tape files, in either blocked or unblocked format and EBCDIC

or ASCII data code. The Model 15 Tape Sort program is functionally identical to the Model 10 Disk-Resident Magnetic Tape Sort program.

CARD UTILITIES: A set of four disk-resident programs designed to handle a variety of punched card, utility functions. The Sort/Collate Program supports either the 5424 MFCU or the 2560 MFCM and performs numerous sorting, merging, matching, selecting, and sequencing checking functions. The Card List Program lists 80-column or 96-column cards on the printer without reformatting. The Reproduce/Interpret Program handles the reproduction and/or interpretation of 80-column or 96-column cards, with or without reformatting. The Gang-Punch Program (new for the Model 15) handles interspersed master card gangpunching, count-controller gangpunching, and punching based on matching control fields in master and detail cards. Three of the Model 10 Card Utilities programs are not included in the Model 15 Card Utilities: Data Recording, Data Verification, and 80-96 Conversion.

DATA/3: This new System/3 Program Product generates terminal control programs for the following types of applications: inquiry, inquiry with update, data entry, and data entry with master file input. The programmer fills out two RPG-like forms: a data description form and a program definition form. DATA/3 uses this information to generate RPG II source programs, which are subsequently compiled and executed. Programs generated by DATA/3 support the 3270 Information Display System and both the 5444 and 5445 Disk Storage Drives. DATA/3 can be used on either a System/3 Model 10 or Model 15, in connection with either the Multi-line/Multipoint software or the Communications Control Program.

PRICING

POLICY: IBM offers the System/3 Models 10 and 15 on a purchase or rental basis. No three- or five-year leases are available. The Standard IBM rental contract includes equipment maintenance and entitles the customer up to 176 hours of billable time per month. Time used in excess of that amount is billed, for most System/3 components, at an extra-use rate of 10% of the basic hourly rate (i.e. 10% of 1/176 of the monthly rental for each hour of extra use).

SOFTWARE: System/3 users receive the basic System Control Programs at no additional cost. All other IBM software, including compilers and utility routines, is priced separately. Prices of the current IBM Program Products are listed at the end of this report.

SUPPORT: IBM Systems Engineering assistance is available to System/3 users at a basic charge of $26.00 per hour.

EDUCATION: Two day introductory courses are offered at no charge. Various other System/3 courses are available at costs averaging about $40 per student per day.

EQUIPMENT: The following typical purchase and rental prices include controllers and adapters.

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MINIMUM CARD SYSTEM: Consists of 8K 5410 Processing Unit, 5424 Model A1 MFCU, and 5203 Model 1 Printer (with 96 print positions). Monthly rental, $1,016. Purchase price, $45,690. ▶

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For the above configuration with the faster 5424 Model A2 MFCU and 5203 Model 2 Printer: Monthly rental, $1,233. Purchase price, $51,510.

TYPICAL DISK SYSTEM: Consists of 12K 5410 Processing Unit, 5424 Model A2 MFCU, 5203 Model 2 Printer (with 120 print postions), 5471 Printer-Keyboard, and one 5444 Model 2 Disk Storage Drive ($4.90 million bytes). Monthly rental, $1,966. Purchase price, $83,520.

For the above configuration with a 32K Processing Unit: Monthly rental $2,580. Purchase price, $102,520.

EXPANDED DISK SYSTEM: Consists of 49K 5410 Processing Unit, 5424 Model A2 MFCU, 1403 Model N1 Printer, 5471 Printer-Keyboard, two 5444 Model A2 Disk Storage Drives (9.8 million bytes), and two 5445 Disk Storage Drives (41 million bytes). Monthly rental, $5,603. Purchase price, $228,280.

System/3 Model 15

MINIMUM SYSTEM: The basic configuration required to utilize the Model 15 programming support consists of a 5415 Model A17 Processing Unit (49K bytes), 3277 Model 1 Display Station, 1403 Model 5 Printer, 5424 Model A1 MFCU, and one 5444 Model A2 Disk Storage Drive, plus all necessary attachments and control units. Purchase price is $141,100; monthly rental (including maintenance), $3,305.

EXPANDED SYSTEM: A typical large Model 15 disk system consists of a 5415 Model A20 Processing Unit (131K bytes), 3277 Model 1 Display Station, 1403 Model N1 Printer, 2560 Model A1 MFCM, 2501 Model A2 Card Reader, one 5444 Model A2 Disk Drive, and four 5445 Disk Storage Drives, plus all necessary attachments and control units. Purchase Price is $295,100; monthly rental (including maintenance), $7,040. ∎

EQUIPMENT PRICES

	Purchase Price	Monthly Maint.	Rental (short-term lease)*
PROCESSOR AND MAIN STORAGE			
5410 Model 10 Processing Unit (for non-disk systems)			
Model A2; 8, 192 bytes	$ 16,400	$38.75	$ 334
Model A3; 12,288 bytes	21,700	42.75	442
Model A4; 16,384 bytes	22,400	42.75	566
Model A5; 24,576 bytes	40,000	57	816
Model A6; 32,768 bytes	40,700	57	1,060
Model A7; 49,152 bytes	59,000	79	1,380
5410 Model 10 Processing Unit (for disk system)			
Model A12; 8,192 bytes	23,000	85	470
Model A13; 12,288 bytes	28,300	89	576
Model A14; 16,384 bytes	29,100	89	698
Model A15; 24,576 bytes	46,600	104	948
Model A16; 32,768 bytes	47,300	104	1,190
Model A17; 49,152 bytes	65,600	126	1,510
3500 Dual Program Feature (for 5410)	5,830	1	118
5732 Processing Unit Expansion Feature A (for 5410)	1,850	3	37
5501 Power Supply Expansion**	2,290	1.00	51
5733 Processing Unit Expansion 1**	816	.50	20
5734 Processing Unit Expansion 2 (5733 is prerequisite)**	2,240	1.00	56
5735 Processing Unit Expansion 3 (5734 is prerequisite)**	816	1.00	20
5415 Model 15 Processing Unit:			
Model A17; 49,152 bytes	63,000	210	1,510
Model A18; 65,536 bytes	67,000	215	1,610
Model A19; 98,304 bytes	78,000	220	1,860
Model A20; 131,072 bytes	86,000	230	2,060
5501 Power Supply Expansion**	2,250	1.00	50
5733 Processing Unit Expansion 1**	800	0.50	20
5734 Processing Unit Expansion 2 (5733 is prequisite)**	2,200	1.00	55
5735 Processing Unit Expansion 3 (5734 is prerequisite)**	800	1.00	20

* Rental prices include equipment maintenance.

**These four features provide additional CPU power supply and connections; they are required for certain combinations of peripheral, communications, and/or RPQ equipment.

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EQUIPMENT PRICES

		Purchase Price	Monthly Maint.	Rental (short-term lease)*
CONSOLE				
3277	Display Station, Model 1 (required)	3,460	7	76
4632	78-Key Operator Console Keyboard (required on 3277)	1,420	11	35
MASS STORAGE				
5444	Disk Storage Drive			
	Model A1; 2.46 million bytes	8,610	66	204
	Model A2; 4.92 million bytes	10,200	66	306
	Model A3; 2.46 million bytes	8,610	66	204
	Model 1; 2.46 million bytes	8,720	47.75	167
	Model 2; 4.92 million bytes	10,400	47.75	275
	Model 3; 2.46 million bytes	8,720	47.75	167
5540	Disk Cartridge (for 5444 drives)	175	Time & Mat'l	Purchase Only
5422	Disk Enclosure (required for attachment of 544 Disk Storage Drives when 5424 MFCU is not used)	4,990	12	102
6378	Second Disk Attachment (required on 5415 for a 5444 Mod. 3 or a second 5444 Mod. 2)	2,515	5	47
6378	Second Disk Attachment (required on 5410 for a 5444 Mod. 3 or A3 or a 2nd 5444 Mod. 2 or A2)	2,560	5	47
4501	Higher-Performance First Disk Attachment	999	1	20
4502	Higher-Performance Second Disk Attachment (required on 5410 for a 5444 Mod. A3 or 2nd 5444 Mod. A2; 6378 is a prerequisite)	999	1	20
5445	Disk Storage Drive:			
	Model 1; first 5445 on 5410 or 5415; 20.48 million bytes	16,000	86	357
	Model 2; second 5445 on 5410 or 5415; 20.48 million bytes	15,300	81	341
	Model 3; dual-pack 5445; 40.76 million bytes			
3901	First 5445 Disk Attachment (for 5410); required for Model 1 and 3	20,400	33.50	510
3902	Second 5445 Disk Attachment (for 5410);required for Model 2 and 3	612	1	15
5732	Processing Unit Expansion A (required on 5410 for connection of 3901)	1,850	3	37
5733	Processing Unit Expansion B (required on 5410 if both 3901 and 2704, BSCA, are installed)	816	.50	20
3901	First 5445 Attachment (required on 5415 for first 5445 Mod. 1)	20,000	33	500
3903	Second 5445 Attachment (for 5415); required for Model 2 or Model 3	3,000	1	15
INPUT/OUTPUT UNITS				
3401	Magnetic Tape Unit:			
	Model 1; 20 KB	7,850	45.75	188(1)
	Model 2; 40/20 KB	10,500	51	249(1)
	Model 3; 80/40 KB	13,000	56	311(1)
3411	Magnetic Tape Unit and Control:			
	Model 1; 20 KB	17,300	71	412(1)
	Model 2; 40/20 KB	21,900	76	525(1)
	Model 3; 80/40 KB	26,700	81	637(1)
3211	Single Density Feature (for 3410 & 3411, Models 2 & 3 only)	2,550	7.50	55(1)
3221	Dual Density Feature (for 3410 & 3411, Models 2 & 3 only)	3,670	27.50	81(1)
7003	System/3 Attachment (required on 3411)	3,210	3	76(1)
7951	3411 Magnetic Tape Attachment (required on 5410 Processing Unit)	4,890	10	163
7951	3411 Magnetic Tape Attachment (required on 5415 Processing Unit)	4,800	10	160
5424	Multi-Function Card Unit:			
	Model A1; reads 250 cpm, punches and prints 60 cpm	10,200	142	291
	Model A2; reads 500 cpm, punches and prints 120 cpm	13,500	204	437
4100	MFCU Attachment (required on 5410 for 5424 Mod. A1)	4,530	14.25	85
4101	MFCU Attachment (required on 5410 for 5424 Mod. A2; 4100 is prerequisite)	5,750	14.25	102
4100	MFCU Attachment (required on 5415 for 5424 Mod. A1)	4,450	14	84
4101	MFCU Attachment (required on 5415 for 5424 Mod. A2; 4100 is prerequisite)	5,640	14	100
1442	Card Read Punch:			
	Model 6; reads 300 cpm punches 80 cols/sec.	14,400	56	270
	Model 7; reads 400 cpm, punches,160 cols/sec.	15,500	66	392
3950	5415 Coupling (required on 1442)	1,500	1	30
4130	1442 Attachment (required on 5410)	8,870	15.25	193
4130	1442 Attachment (required on 5415)	8,700	15	190
2501	Card Reader (Model 15 only)			
	Model A1; 600 cpm	11,200	35.50	198
	Model A2; 1,000 cpm	11,400	49.75	260

*Rental prices include equipment maintenance.
(1) A discount of 8% or 16% from these rental prices is available under a 12-month or 24-month fixed-Term Lease, respectively.

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