Basic/Four Business Computers

MANAGEMENT SUMMARY

Basic/Four Corporation, a subsidiary of Management Assistance Inc. (MAI) established in 1971, is one of the leaders in the small business computer field with about 4000 systems currently installed. The company has 50 field marketing offices (dealers and direct sales) throughout the United States, as well as subsidiaries and distributors marketing Basic/Four systems in more than 69 foreign locations. During fiscal 1976, worldwide sales of Basic/Four systems and related peripheral equipment and supplies totaled $61 million. In the first six months of 1977, worldwide sales totaled $37 million.

Initially a systems house using Microdata CPU's, Basic/Four began manufacturing its own CPU in September 1976, introducing it simultaneously with the top-of-the-line Model 700 business computer. In January 1977 the company expanded its manufacturing operations to include a video display terminal, and in May 1977 announced its intention to manufacture its own printer by the end of the year.

The Basic/Four family currently consists of Models 350, 400, 600, and 700. Each is a disk-based system intended for interactive terminal use, employing CRT display terminals for the user interface and a line printer for hard-copy output.

The distinctions between Models 350, 400, and 600 lie principally in the configuration rules: Model 350 can have one operator terminal and 5 million bytes of disk storage; Model 400 can have up to four operator terminals and up ▷

The Basic/Four business computers have been well received in the marketplace since their introduction in 1971. Initially a systems house, the company began manufacturing operations in 1976 and introduced its own CPU simultaneously with the Model 700 system. The current line consists of four models ranging in price from $34,400 to $115,000.

CHARACTERISTICS

MANUFACTURER: Basic/Four Corporation, 18552 MacArthur Boulevard, Irvine, California 92714. Telephone (714) 833-9530.

Basic/Four was established in 1971 as a subsidiary of Management Assistance Inc. (MAI), New York, N.Y. Basic/Four is engaged in the manufacture and marketing of computer business systems and the development of applications software. All manufacturing is done at the company's facilities in Orange County, California. Basic/Four products are sold in more than 40 cities throughout the United States and in 69 foreign locations in Europe, Asia, South America, and Canada through the company's own sales offices and a dealer network.

MODELS: Systems 350, 400, 600, and 700.

DATES ANNOUNCED: Model 350 and 400, June 1971; Model 600, October 1975; Model 700, September 1976.

DATES OF FIRST DELIVERY: Model 350, October 1971; Model 400, August 1971; Model 600, March 1976; Model 700, October 1976. ▶

Model 700 is the latest addition to the Basic/Four line. Included in the minimum-configuration system are 64K bytes of MOS memory, 4 video display terminals, a 300 line-per-minute printer, and 150 millon bytes of disk storage. Purchase price is $115,000.

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▷ to 20 million bytes of disk storage; Model 600 can have up to eight operator terminals and up to 40 million bytes of disk storage.

The Model 700, introduced simultaneously with the BFC-developed processor in September 1976, offers a number of salient features peculiar to it alone, including an intelligent disk storage subsystem, a compiler/interpreter that Basic/Four calls a Tri-State Language Processor, a spooling capability, and enhanced communications capability.

The Model 700 disk subsystem is organized around a programmable bipolar LSI processor that handles many of the time-consuming housekeeping chores normally performed by the CPU. This distributed processing concept not only reduces the CPU's workload, but provides more efficient system input. The disk processor is also capable of performing selected error checking/correction routines. Detection of erroneous data automatically activates error-correcting routines which are built into the operating system. Another function performed by the processor is automatic execution of test routines during the power-up sequence and during system initialization.

The Tri-State Language Processor combines the approaches of an interpreter and a compiler. The three states of the language processor are the concurrent compiler state, program processor state, and decompiler state. The concurrent compiler translates each BASIC statement entered by the user into internal machine language. The object program is then executed and also stored for reuse. The program processor uses the concurrently compiled object program when applications program processing takes place, thus eliminating the need for repetitive interpretation of the source code. The decompiler automatically translates the internal machine language back into its source code form when this is needed for program modification.

Spooling on the Model 700 is accomplished through use of a special SERIAL file and an associated buffer. When the buffer becomes full, it is automatically written to the SERIAL file. Data for several print lines is transferred in a single disk access.

The Model 700 offers a number of communications options. Sixteen full-duplex asynchronous communication channels allow remotely located printers and video display terminals to be connected to the CPU over ordinary telephone lines. The optional binary synchronous communications channel provides high-speed communications capabilities. Using the synchronous channel, a Model 700 can communicate with either another Basic/Four system or a foreign computer.

Basic/Four Corporation provides both an enhanced BASIC-language programming capability and separately priced applications programs. Thus, in its appearance to the user, a Basic/Four computer can be a turnkey system that is prepared for customer delivery in a ready- ▷

▶ **NUMBER INSTALLED TO DATE:** Nearly 4000 worldwide.

DATA FORMATS

BASIC UNIT: 8-bit byte.

FIXED-POINT OPERANDS: Two or four-byte words (16 or 32 bits) are used for standard and extended arithmetic operations.

INSTRUCTIONS: At either the microprogramming or the user level, there are five basic 16-bit instruction formats. Literal instructions can have one of three formats. In the first, the operation code occupies the four high-order bits; the next four bits (11 through 8) contain the file register designation; and the eight low-order bits contain a literal which is translated into an operand. In the second format, the operation code takes the eight high-order bits, and the next eight bits constitute a literal which is translated into an operand. The third format is used only for a branch instruction (Jump Extended) in which the 4 high-order bits contain the operation code and the next 12 bits contain a literal which is translated into a control memory address.

In the operate command format, the operation code occupies the four high-order bits. The next four bits specify the file or form register; these are followed by four bits which designate the control under which the command is to be executed (e.g., link control, modify condition codes, add 1, or decrement). The next bit is the file inhibit bit which, when set to one, prevents the command from being transferred to the file register. The last three bits indicate the destination register.

The generic commands consist solely of an operation code that occupies all 16 bits. Up to 64K bytes of main memory can be directly addressed.

INTERNAL CODE: ASCII.

MAIN STORAGE

STORAGE TYPE: MOS main memory, plus bipolar read-only memory (ROM) control memory.

CYCLE TIME: 600 nanoseconds for main memory; 200 nanoseconds for control memory (ROM).

CAPACITY: 8K to 128K 8-bit bytes, in 8K or 16K increments for all models (maximum of 104K bytes available for user programs exclusive of operating system requirements).

CHECKING: One parity bit per byte.

STORAGE PROTECTION: Hardware power failure circuitry senses voltage reductions and triggers a software power fail routine. When the proper voltage level is restored, a message alerts the user to the fact that a power failure has occurred. No action need be taken, however, and operation of the current program may continue since neither the data, program, nor operating system is destroyed. Memory data integrity is protected by a back-up battery as an independent power source. The memory and refresh control circuitry are powered in the standby mode, which enables memory contents to be retained.

RESERVED STORAGE: The first 16K bytes (24K on the Model 700) are reserved for the operating system. This area may be enlarged to allow for special drivers and buffers.

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PERIPHERALS/TERMINALS

DEVICE	DESCRIPTION AND SPEED	MANUFACTURER
MAGNETIC TAPE UNITS		
6100	Industry-compatible, 12.5 ips, 9-track (800 bpi); 10 KBS	Wangco Mod 7
6200	Industry-compatible, 12.5 ips, 7-track (800 bpi); 10 KBS	Wangco Mod 7
PRINTERS		
3101/3102	132-position, 64-character; 165 cps	Centronics 101A
3500/3600	132-position, 64-character; 300/600 lpm	Data Products
3510	132-position, 96-character; 300 lpm	Basic/Four
PAPER TAPE EQUIPMENT		
5110	Reader, 1-inch, 5-8 channel; 300 cps	Remex RR7300
5120	Reader, ⅞-inch, 6 channel; 300 cps	Remex RR7300
5200	Punch, 11/16-1-inch, 5-8 channel; 75 cps	Facit Addo 4060
5210	Punch, ⅞-inch, 6-7 channel; 75 cps	Facit Addo 4060
TERMINALS		
7230	Alphanumeric CRT, 24 lines x 80 char/line; 240 cps	Basic/Four
7400	Alphanumeric CRT, 16 lines x 32 char/line; 240 cps	Informer

to-run condition. Although many users confront the system at the turnkey business machine level, an increasing percentage of users are doing their own programming or contracting with independent organizations for applications programming. (Basic/Four is cautious about over-committing itself on applications program support, as it did early in the company's history.)

For application development, Basic/Four supports Business BASIC II. In early 1977, a marketing support group was formed to provide customer support and application programming aid. Meanwhile, Basic/Four continues to purchase established and proven application software packages that have been developed for a variety of manufacturing, financial, and educational institutions, and is now assembling them for sale nationally.

A Basic/Four system is generally operated by the user's existing clerical staff after just a few days of training provided by Basic/Four. In addition, applications are programmed to display step-by-step operator instructions on the CRT screen as an aid to operation of the equipment and to reduce further the skill levels required of the operator.

In general, user reaction to a data processing system correlates roughly to the degree of sophistication of the user: the more sophisticated the user, the greater his degree of satisfaction. On the other hand, the less sophisticated user, unable to define his application programs, is less likely, on the whole, to arrive at a satisfactory solution to those requirements. Unfortunately, while the degree of data processing awareness among users is generally on the rise, it happens all too often at the small business system level—where minicomputer systems such as Basic/Four can best be utilized—that unprepared users are encountered.

Cognizant of this fact, Basic/Four has established branch education centers and a customer training program to

CENTRAL PROCESSOR

GENERAL: The processor used in the Basic/Four systems is fully microprogrammable, with a large number of registers, multi-level stack processing, ROM control memory, standard power failure/automatic restart, real-time clock, and built-in bootstrap loader in non-volatile ROM.

CONTROL STORAGE: The ROM (read-only memory) for Models 350, 400, and 600 is composed of 2560 bytes, and for the Model 700, 4000 bytes. Basic/Four does not allow user access to ROM.

REGISTERS: None apparent to users. The computing capability in the CPU is handled by an 8-bit ALU. Temporary storage is in the form of sixteen 8-bit scratchpad registers. There are seven additional registers in the CPU which are used for various operations such as linkage and storage protection.

INDIRECT ADDRESSING: Yes, to one level.

INSTRUCTION REPERTOIRE: 134 instructions, including:

- Control (12)
- Conditional jumps (21)
- Shift (12)
- Decimal digit (3)
- Input/output (6)
- Register operate (23)
- Stack control (13)
- Character/string manipulation (24)
- Memory reference (20)

Memory reference instructions include jump, compare, and variable word-length operations.

INSTRUCTION TIMING: The following execution times are given in microseconds for two-byte word (16-bit) operands. The timings vary according to the addressing mode used.

Load A	6.8 to 10.2
Store A	7.0 to 10.4
Jump of A & B	5.2 to 6.0
Add to A	7.4 to 10.8
Subtract from A	7.4 to 10.8

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The Basic/Four Model 400 can support up to 64K bytes of main memory (48K user), four terminals, and 20 million bytes of disk storage. A minimum configuration with 24K bytes of memory, one CRT, one printer, and 10 million bytes of disk storage is priced at $36,900.

▷ provide relevant computer information to all levels of users: operators, programmers, and management. Those who have availed themselves of this service (or similar training) are generally more likely to be rewarded with successful installations than unsophisticated users who have not done so.

Maintenance of the Basic/Four systems is handled by another MAI subsidiary, Sorbus, through an extensive network of offices in 130 cities all over the U.S.

Generally, a prospective Basic/Four user must assure himself that he is able either to develop his own applications or to communicate his processing requirements to Basic/Four or an independent software organization so that a system can be tailored to his needs. Further, Basic/Four users, like computer system users in general, would be well advised to define their applications carefully and to talk to existing Basic/Four users who are currently handling similar application workloads.

USER REACTION

Summarized below are the reactions of the first 10 Basic/Four users who responded to Datapro's 1977 survey of minicomputer users. These 10 users represented three Model 600 systems, one Model 500 system, and six Model 400 systems. All of these users had purchased their systems outright. The length of time their systems had been installed ranged from 2 months to 68 months. Five systems had two CRT's each, two had three, one had four, one had five, and one had seven.

Four of these users were doing some of their own programming and having some done by a source outside their companies. Three users were having all of their programming done outside, two were using only proprietary packages they had purchased, and one Model 600 ▷

▶ INTERRUPTS: There are eight interrupts available in the Basic/Four processor. The system is one of priority interrupts for internal processor interrupts, I/O peripheral device interrupts, and groups of individual external interrupts. Each such interrupt has its own unique memory address and priority assignment. External interrupts occur at device controllers or at interrupt modules on the Byte I/O bus. Internal interrupts enjoy priority over external ones and are dedicated to console interruption, power fail/restart, real-time clock, and user-selectable, optional interrupts.

PHYSICAL SPECIFICATIONS: Basic/Four systems do not normally require raised flooring or special air conditioning. A relative humidity of up to 80 percent is tolerated. For installations with carpeted floors, a minimum of 50 percent relative humidity is required. Temperature must be kept under 80 degrees F. Power requirements are 115 VAC, 60 Hertz. An area of 12 square feet is sufficient to house a basic system and provide for maintenance. All Basic/Four processors are housed in an area four feet wide and two feet deep; this does not include desk space for the CRT's.

INPUT/OUTPUT CONTROL

I/O CHANNEL: I/O operations can take place via the direct memory access channel (DMA) at speeds of up to 1.25 million bytes/second or via the I/O bus at up to 20,000 bytes/second. Each type of peripheral device requires a different I/O controller, and each I/O controller, in turn, requires a slot in the central processor.

CONFIGURATION RULES: There are 19 slots in the CPU. All systems use a minimum of six slots, as follows: two for the CPU, one for the printer, two for the disk/DMA controller, and one for the asynchronous communications controller. A Model 350 can be expanded to a Model 600 by adding or changing boards. Each additional peripheral device except display terminals and disks uses additional slots as follows: one per printer, two per magnetic tape, and one for each 8K or 16K bytes of memory.

MASS STORAGE

2224 DISK STORAGE: Provides a total of 5 million bytes of direct-access storage on one fixed and one removable ▶

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▷ user had contracted with Basic/Four for programming services.

Here's how these 10 users rated the Basic/Four offerings:

	Excellent	Good	Fair	Poor	WA*
Ease of operation	7	3	0	0	3.7
Reliability of mainframe	8	2	0	0	3.8
Reliability of peripherals	4	6	0	0	3.4
Maintenance service:					
Responsiveness	7	3	0	0	3.7
Effectiveness	4	6	0	0	3.4
Technical support	4	5	0	0	3.4
Manufacturer's software:					
Operating system	7	3	0	0	3.7
Compilers and assemblers	5	4	0	0	3.6
Applications programs	4	2	0	1	3.3
Ease of programming	'7	3	0	0	3.7
Ease of conversion	4	6	0	0	3.4
Overall satisfaction	6	4	0	0	3.6

*Weighted Average on a scale of 4.0 for Excellent.

These users were quite impressed with all aspects of the Basic/Four offerings. The word most often used in describing positive system features was "easy." Almost every user said the system was easy to use and easy to program. Other favorable comments were "easy installation," "easy implementation of multiprogramming," "easy to debug," and "simple to use".

The user who rated Basic/Four's applications software as poor qualified this rating by indicating that the rating was given because Basic/Four did not offer applications software to fit his needs, not because the quality was poor. He had never actually used any of the manufacturer's applications software. The only other negative reaction to the Basic/Four systems was directed at the disk drives. One user complained about "slow disk speed," while another said he felt he got "degradation on a 2-disk system."

The Basic/Four small business computers have been well received in the marketplace since their introduction in 1971, and there is no reason to believe this trend will not continue. Basic/Four seems intent not only on broadening its small business system line, but also on continuing its efforts to provide the kind of service and support that users in its market are looking for. Manufacturing its own products will also help Basic/Four to serve its users better by giving it more flexibility to develop the kinds of systems users want and need.□

▶ disk cartridge. Average positioning time is 35 milliseconds, average rotational delay time is 12.5 milliseconds, and data transfer rate is 195K bytes per second. The manufacturer is Iomec.

2324 DISK STORAGE: Provides a total of 10 million bytes of direct-access storage on one fixed and one removable disk cartridge. Average positioning time is 35 milliseconds, average rotational delay time is 12.5 milliseconds, and data transfer rate is 195K bytes per second. The manufacturer is Iomec.

2500 DISK STORAGE: Provides 75 million bytes of direct-access storage on a removable disk pack. Average positioning time is 30 milliseconds, average rotational delay time is 8.3 milliseconds, and data transfer rate is 1.2 million bytes per second. The manufacturer is Calcomp.

INPUT/OUTPUT UNITS

See Peripherals/Terminals table.

COMMUNICATIONS CONTROL

8100 COMMUNICATION INTERFACE: Provides communications for asynchronous terminals at speeds of up to 9600 bits/second.

8129 SYNCHRONOUS COMMUNICATION FEATURE: Provides the necessary support for communications between two Basic/Four Model 600 or 700 systems or between a Model 600 or 700 and a different computer. The feature supports synchronous half-duplex transmission over the public telephone network at 2000, 2400, or 4800 bps. Both ASCII and EBCDIC transmission codes are supported. The feature is optional on Models 600 and 700.

SOFTWARE

OPERATING SYSTEM: All systems use BOSS II, an enhanced version of Basic Operating System Software (BOSS), the operating system initially introduced with the Basic/Four systems. Used with the interpreter-based Models 350, 400, and 600, BOSS II requires 16K bytes of main memory for a one workstation system. Each partition and/or additional workstation requires approximately 5K to 8K bytes of additional main memory.

The Model 700 employs a newly developed compiler/interpreter called the Tri-State Processor that requires 24K bytes of main memory for a 4-workstation system plus approximately 8K bytes for each partition and/or additional workstation. The Tri-State Processor consists of a concurrent compiler, a program processor, and a decompiler. The concurrent compiler translates each Business BASIC statement entered into an internal language or object program. As each statement is entered, it is checked for syntactical errors, and, if correct, it is compiled or translated into the object language, which compresses the source statement. The program processor uses the concurrently compiled object program when application program processing takes place (at execution time), thus avoiding the need for repetitive interpretation of the source program. The decompiler translates the object language back into source form when needed for program modification.

LANGUAGES: All models utilize Business BASIC II, an enhanced version of the BASIC language, supported by system-oriented I/O control, formatted I/O, data file management, and decimal arithmetic subroutines.

Business BASIC II has been developed as an improved version of Business BASIC. File and error handling are improved and extensively changed from the original version of Business BASIC. The time required to create a DIRECT file and do DIRECT file key searches has been reduced. All files, whether DIRECT or INDEXED, may be blocked to a variable, predetermined record size. Records may range in size from 0 to 32,768 characters, provided that a file starts on a sector boundary. With these changes, any file transferred to a Model 700 from Models 350, 400, or 600 must go through a conversion. This is handled by a translator provided by Basic/Four.

UTILITIES: The Tri-State Processor and BOSS II support a number of utilities written in Business BASIC. Included are File Copy, Disk Copy, List Programs, Cross Reference Programs, and File Dictionary Display. ▶

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APPLICATIONS SOFTWARE: Basic/Four currently offers both national packages and packages which have been developed by its dealers for specific local industrial, business, and educational applications. It is the intent of Basic/Four to sell all the packages on a national basis.

The currently available national packages are the Medical Financial and Accounting Control System (MEDIFACS) and the Insurance Management Accounting System (INSURMACS).

The *Medical Financial and Accounting Control System (MEDIFACS)* is an applications software package designed to accommodate processing requirements in the hospital environment. Operation and maintenance activities are included for each of the following:

Patient Admission and Logistics—Pre-admissions and impatient and outpatient processing are included. Census reports are printed reflecting current in-house patients according to nursing station (room/bed), alphabetic sequence, doctor, religion, diet, or financial classification.

Patient Accounting/Billing—Transaction processing and patient billing are provided. Transaction processing includes the entry proof listing, correction, and posting of charges and payments with complete audit trail reporting. Third-party billing, Medicare reporting, and UB16 are provided for.

Accounts Receivable—This module is composed of reporting functions which reflect the status of the open accounts receivable generated by patient transactions. Reporting features include accounts receivable statements, trial balance reports, aged trial balance reports, small balance/collection bad debt reports, and the delinquent accounts report.

Payroll and Personnel—This is a complete payroll system using numerous methods of pay and deduction calculations. All federal, state, and local tax requirements are provided for, and weekly, bi-weekly, semi-monthly, and monthly pay cycles are accommodated. Pay rates may be hourly, daily, or salaried, and multiple rates are acceptable.

Accounts Payable—Ths module uses a "pre-authorized" payment selection method. Cash requirement forecasts and vendor discount information are provided to enable effective cash management.

General ledger—This module is completely integrated into the rest of the system. Some reporting features included are: trial balances, income statement, operating statements, comparative income and expense report, balance sheet, and cost allocation schedules.

The *Insurance Management Accounting System (INSURMACS)* is a fully integrated accounting package that takes the user from policy entry through the updating of the trust master file with a daily audit trail punctuated by a daily trust activity list. The activity list shows each detail trust transaction by source journal with totals which tie back to their originating document (i.e., policy, invoice, check, etc.). The system includes policy processing, cash receipts processing, accounts payable, and general journal functions. INSURMACS will support up to 25 separate trust accounts with the ability to journalize entries into the operational general ledger of the agent. Although financial reporting is omitted from the system, all the necessary data is supplied, and custom financial reporting may be added to conform with the specific user's needs.

Dealer-developed packages are available for general business applications; for the construction, manufacturing, transportation, printing and publishing, wholesale and retail trade industries; for finance, insurance, and real estate activities; and for various service organizations and utilities.

PRICING

POLICY: Basic/Four systems are available for purchase or on a third-party lease, with separate charges for maintenance. Unlimited usage of the system is permitted at no additional maintenance charge. Applications software is separately priced.

Maintenance is provided by more than 1200 service representatives located in more than 160 U.S. cities by another MAI subsidiary, Sorbus. Maintenance contracts begin after the 90-day warranty period has expired.

EQUIPMENT: Typical system prices are reflected in the configurations listed below.

MODEL 400: Consists of a CPU with 32K bytes of memory, two CRT's, 10-megabyte disk drive, and 165-cps serial printer. Purchase price is $42,100.

MODEL 600: Consists of a CPU with 48K bytes of memory, four CRT's, 10-megabyte disk drive, and 165-cps serial printer. Purchase price is $63,500.

MODEL 700: Consists of a CPU with 64K bytes of memory, eight CRT's, two 75-megabyte disk drives, synchronous communications option, and 300-lpm line printer. Purchase price is $129,750.■

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EQUIPMENT PRICES

		Purchase Price	Monthly Maint.	Monthly Rental*
PROCESSOR PACKAGES				
Model 350	Single-User Video Display Terminal System, including 24K bytes of memory, 5-megabyte disk, 165 cps printer, and one CRT	$ 34,400	$240	$ 757
Model 400	Multiple-User System, including 24K bytes of memory, 10-megabyte disk, 165 cps printer, and one CRT; supports up to 4 CRT's.	36,900	265	812
Model 600	Multiple-User System, including 32K bytes of memory, 10-megabyte disk, 165 cps printer, and one CRT; supports up to eight CRT's.	51,400	275	1,131
Model 700	Multiple-User System, including 64K bytes of memory, two 75-megabyte disks, 300 lpm printer, and four CRT's; supports up to 16 CRT's.	115,000	766	2,530
MEMORY/PROCESSOR OPTIONS				
1301	Memory; 8,192 additional bytes for 350, 400, and 600	2,000	33	44
1302	Memory; 16,384 additional bytes for 350, 400, and 600	2,500	45	55
1303	Memory; 8,192 additional bytes for 700	2,000	20	44
1304	Memory; 16,384 additional bytes for 700	2,500	35	55
911	Eight-Terminal Controller for 400	3,000	5	66
MASS STORAGE				
2324	Disk Storage, 10 megabytes	12,000	90	264
2580	Disk Storage, 75 megabytes	17,200	130	378
	Disk cartridge	175	—	4
	Disk pack	595	—	13
MAGNETIC TAPE				
6100	Magnetic Tape Drive, 10KBS, 800 bpi (NRZI), 9-track	7,950	75	175
6200	Magnetic Tape Drive, 10KBS, 800 bpi (NRZI), 7-track	7,950	75	175
PRINTERS				
3101	Serial Printer, second on system, 165 cps	6,450	60	142
3102	Remote Serial Printer for Models 400, 600, 700	6,450	70	142
3151	Line Printer, 150 lpm; available only for Model 400 as a substitute for serial printer	3,000	—	66
3152	Line Printer, second on 400 system, 150 lpm	7,900	60	174
3500	Drum Printer, second on system, 64-character, 300 lpm	16,500	80	363
3510	Line Printer, 96-character, 300 lpm	11,900	80	262
3600	Drum Printer, second on system, 64-character, 600 lpm	17,900	120	394
PUNCHED PAPER TAPE EQUIPMENT				
5110/5120	Reader, 300 cps	RPQ	40	NA
5200/5210	Punch, 75 cps	RPQ	40	NA
TERMINALS				
7220	Video Display Terminal, 1920 characters	3,200	25	70
7400	Executive Display Terminal, 512 characters	2,450	25	54
COMMUNICATIONS				
8129	Synchronous Communication Option	1,950	18	43

SOFTWARE

Contact Basic/Four directly or dealers for prices of all applications software.

*Typical 66-month, third-party lease, including maintenance.