All About Small Business Computers

As expected, and with no end in sight, the small business computer market continues to grow at a phenomenal rate. In 1979, a DEC spokesman estimated that the dollar value of units shipped in 1980 would be approximately $3.5 billion, and reach approximately $13 billion by 1985 and $50 billion by 1990. Although the spokesman was close, the dynamic small business computer market outgained the estimate, grossing $5.1 billion in 1980.

Creative Strategies International, a market-research firm, estimates the worldwide market for small business computers will grow 25 percent *per year* from $5.1 billion in 1980 to $15.5 billion in 1985. A second firm, Venture Development of Wellesley, MA, estimates that the $20,000-and-under small business computer market alone will grow at a rate of 33 percent per year, reaching 50 percent of the market by 1984.

There is no doubt that the small business computer will be a common sight in most small business firms—perhaps as commonplace as an office copier or telephone switchboard. The ever-increasing costs and complexities of doing business are forcing small businessmen to find new ways to cut their labor costs and gain tighter control over their operations, and a wisely chosen small computer system can help immeasurably in both these critical areas.
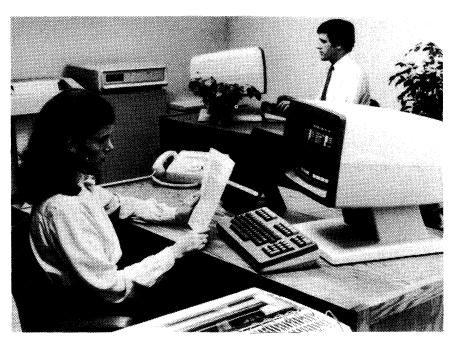
In price and performance, the small business computers span a wide range that fills the gap between conventional accounting machines at one extreme and medium-scale computer systems at the other. Though the current small business systems differ widely in their architecture, data formats, peripheral equipment, and software, they are generally characterized by purchase prices in the $5,000 to $100,000 range and by a strong orientation, in both their

> The current products of 87 suppliers of small business computers are represented in this comprehensive report. Detailed characteristics, features, and prices of 369 systems are presented in convenient comparison chart form. In addition, the report includes buying hints and discussions of new technologies.

equipment and software, toward conventional business data processing applications.

In its basic configuration, today's small business computer typically consists of a central processor, a keyboard/CRT unit for data entry, a disk unit for file storage, and a serial printer for hard-copy output. Beyond that, the increasing number and diversity of systems on the market make it difficult to generalize about components, speeds, capacities, and expansion possibilities. A capsule summary of some of the key characteristics of the 369 systems represented in this year's report is as follows:

- Approximately 50 percent of the systems offered are based on 16-bit central processors and 40 percent use 8-bit machines. Also represented are 12-bit, 24-bit, 32-bit, and 64-bit computers.

- Approximately 93 percent of the systems offer MOS memory, and the rest use core memory.

- Minimum memory capacities range from 4K to 3M bytes. Approximately 3 percent have a minimum of 16K bytes (a decrease of 12 percent since last year's report), 8 percent with a minimum of 32K bytes, 33 ▷

The Hewlett-Packard HP 3000 Series 40 features a main memory capacity of 2 megabytes, up to 3200M bytes of disk storage, and accommodates printers ranging in speeds of 40 cps to 45 pages per minute (optional laser printer). The purchase price of the basic system is $86,615.

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▷ percent with a minimum of 64K bytes, 15 percent with 128K bytes, 14 percent with 256K bytes, and 5 percent with 512K bytes.

- Maximum memory capacities range from 16K bytes to 16M bytes. Approximately 17 percent of the systems offer a maximum capacity of 64K bytes (a decrease of 11 percent since last year's report), 9 percent provide a capacity of 128K bytes, 17 percent offer a capacity of 256K bytes, 11 percent feature a capacity of 512K bytes, and 14 percent offer a maximum memory capacity of 1 megabyte.

- To provide random-access storage for data files and programs, 75 percent of the systems offer floppy disk units, 57 percent offer cartridge disk units, 42 percent offer pack disk drives, and 33 percent offer fixed-head disk or drum units.

- To produce printed reports, 33 percent of the systems offer a serial printer and 11 percent offer a line printer as part of their basic (standard) configurations.

- To provide for communication with remote terminals and/or larger computers, 89 percent of the systems offer at least one data communications line, and about one-third can be equipped with from two to eight lines.

The business data processing systems included in this report are known by various names, such as business minicomputers, electronic accounting machines, office computers, or electronic billing computers. To simplify matters, we have chosen to use the term "small business computers" (SBCs) throughout this report.

This report is designed to bring you, in concise comparison-chart form, the up-to-date hardware and software characteristics of the small business computer systems that are currently being marketed in the United States.

The Small Business Computer Marketplace

The small business computer market is served by four distinct types of vendors. The first type is the "Fortune 500" companies such as Burroughs, Honeywell, IBM, NCR, and Sperry Univac, all of whom have vast product lines and resources. For these companies, the small business computer is just one of a broad line of products (although in the cases of NCR and Burroughs, business minicomputers now account for a very sizeable portion of total corporate sales revenues).

A second group consists of minicomputer manufacturers such as Digital Equipment Corporation (DEC), Data General, Computer Automation, Hewlett-Packard, Wang Laboratories, and others. This group has watched the small business computer marketplace

mushroom in size, and now wants a piece of the action. Their answer to this segment of the marketplace is a packaged configuration consisting of a minicomputer and associated peripherals from their current product line, usually accompanied by some applications software. Most minicomputer vendors also offer assemblers and compilers for the user who wants to do his own programming or solve business problems that cannot be handled by packaged software.

System houses or turnkey vendors, such as Applied Digital Communications, STC Systems, and many others, comprise the third group of suppliers of small business computers. This group is very similar to the second group except that the turnkey vendors generally buy minicomputers and/or peripheral devices from the manufacturers, package the configurations, and supply their own software. The prime appeal of a full turnkey system is that all software is written by the vendor; therefore, the user is not required to employ a high-priced programming staff. MAI/Basic Four Corporation, which started out as a systems house using Microdata minicomputers, is now building its own central processors and is one of the leading suppliers of small business computers.

Microcomputer companies, the fourth group of SBC suppliers, represent the fastest growing segment of the SBC market. Companies such as CADO, North Star Computers, TeleVideo Systems, and many others are offering microprocessor-based systems that sell for $20,000 or less. Although this group is still in its infancy, it has already become a formidable force in the SBC marketplace.

Most of the current members of the last two groups sell small business computers and services exclusively, and in many cases are themselves small businesses. However, what they lack in size and resources is often more than compensated for by their quick reaction time to problems, general expertise, and eagerness to satisfy.

IBM, a long-time laggard in the small business computer sector of the EDP marketplace, has climbed into its accustomed position of market leadership during the last few years on the strength of four highly significant product offerings: the System/32, System/34, System/38, and System/23 (Datamaster).

The IBM System/32 was unveiled in January 1975 as the smallest and lowest-priced general business computer ever announced by the industry giant. All components of the System/32—processor, main storage, keyboard, display, printer, disk storage unit, and diskette drive—are housed in a single, compact, desk-sized cabinet. What's more, IBM is billing the System/32 as a "programmer-less" machine whose software, for most users, will consist entirely of preprogrammed Industry Application Packages supplied by IBM. With equipment purchase prices beginning at $23,490, and monthly rentals beginning at $899, the ▷

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▷ System/32 has already convinced thousands of small businesses that it's time to take their first step into computer usage. The availability of the System/32, backed by IBM's powerful marketing forces, has substantially enlarged the total market for small business computers and generated increased sales for both IBM and many of its competitors.

The IBM System/34, introduced in April 1977, represents the next logical step in IBM's succession of small business computer systems. As compared with the System/32, the new system features more processing power, larger memory capacity, larger disk storage capacity, and the ability to attach a number of independent multiprogramming workstations to the basic system. This last feature is the most significant difference between the two systems, since the biggest single drawback to the System/32 for most potential users has been the fact that it is rigidly restricted to serving one user at a time. Thus, with the System/34, IBM has strongly endorsed the concept of multi-user, multi-terminal SBC systems of the type that have long been offered, with considerable success, by vendors such as Basic Four, Datapoint, and Texas Instruments.

The IBM System/38, introduced in October 1978, is the largest and most powerful member of the IBM General Systems Division's expanding line of business data processing systems. Featuring interactive operation, integrated data base support, and an extended RPG programming language, the System/38 represents an attractive migration path for current users of the smaller IBM System/34. The System/38 is available in 114 packaged submodels that offer from 512K to 2048K bytes of main memory, 64.5 to 2.2855 billion bytes of non-removable disk storage, a diskette magazine drive, and a system console with keyboard and display.

With a complete reversal of "thinking big" to "thinking small," IBM introduced the System/23 Datamaster. The Datamaster, announced in July 1981, is designed for first-time users, and features a dual-workstation/shared-file architecture, 32K to 128K bytes of memory, up to 6.6M bytes of diskette storage, and a functionally enhanced Basic language that is highly compatible with System/34 Basic. A single-workstation System/23 with an 80-cps printer is priced under $10,000.

Burroughs and NCR, the perennial leaders in the SBC marketplace until the IBM onslaught, are still strong contenders. Burroughs is counting heavily on its B 90 and B 900 line of small business computers. NCR is concentrating on its new I-9000 line of computer systems. This line of computers includes an 8-bit entry-level system (the 9010), two 16-bit systems (the 9020 and the 9040), and a 32-bit system (the 9050). Prices for the NCR I-9000 line range from $6,320 to $88,700.

Digital Equipment Corporation, the leading builder of scientific minicomputers, offers business-oriented users its Datasystem 300 and 500 Series systems based upon the popular DEC PDP-8 and PDP-11 minicomputers. The most recent addition to the Datasystem 500 line is the Datasystem 579. The system offers a maximum main storage capacity of 3M bytes, a disk storage capacity of 2048 megabytes, and a 180-cps serial printer. The basic system price for the Datasystem 579 is $154,000.

Hewlett-Packard and General Automation are other major suppliers of scientific minicomputers that now offer "packaged" hardware/software configurations oriented toward business data processing applications. Wang Laboratories, which has elected to specialize in serving the SBC market, is now one of the foremost suppliers of these systems.

European-made equipment is making a much greater impact upon the small business computer market than in any other segment of the U.S. computer market. ICL, Olivetti, and Nixdorf are marketing equipment which they manufacture in Great Britain, Italy, and Germany, respectively.

Buying Guidance

As with all categories of data processing equipment, the watchword in selecting a small business computer is "Buyer beware." These machines come in a wide range of types, sizes, and capabilities—with price tags to match—and there's a great deal to be gained through systematic selection of the most appropriate system for your particular needs.

Alternatives

There are several other alternatives you might want to consider before deciding that a small computer system is the answer to all your problems. Many small companies (fewer than 200 employees and sales of less than $5 million) have selected programmable calculators, computer service bureaus, or time-sharing companies to provide the same or comparable services. Each user must decide which alternative provides the most cost-effective solution to his problems. Beyond that, decisions must be made regarding expandability, flexibility, ease of operation, reliability, turnaround time, compatibility with present operations, and the desirability of keeping all operations in-house. After careful consideration is given to these aspects and any other factors peculiar to your operations, an informed decision can be made as to which approach will work best in your company.

But all too often, the buyers of this class of equipment have little or no understanding of data processing principles and are likely to buy the wares of the salesman who arrives first or sells hardest.

No company should *ever* buy a computer from the first salesman who comes through the door. It's always far wiser to check out the offerings of at least a few of the other major suppliers, and you should not hesitate to play ▷

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one vendor against another in an effort to get the most for your money. Just remember that all promises of extra software, technical support, or other concessions should be specifically included in the final contract.

Before seriously considering the acquisition of any business minicomputer, you should demand:

- Detailed specifications of all the pertinent hardware and software.

- A full-scale demonstration of the equipment on at least one of your own principal applications—or, if that's not practical, on a demonstration program whose functions are similar enough to your own needs so that you can draw realistic conclusions about the system's processing speed and ease of programming and operation.

- A detailed proposal that spells out exactly what *equipment, software,* and *technical support* will be supplied, estimated processing times for each of your applications, all responsibilities of both the vendor and the buyer, and the total purchase price or monthly rental price.

- A list of users in your geographical area who are employing the system for applications similar to yours. Talk to several of these users and find out as much as you can about their experiences. While they may not be able to give you much help in developing a sophisticated comparison to other alternative systems, they *can* give you a good idea of what pitfalls to watch out for in installing and using that particular system.

A critically important area to be evaluated is *software*— the programming packages and languages used to program the computer and thereby direct its operations. It is important that you carefully investigate the available software. This investigation should include the programming languages, preprogrammed utility packages such as payrolls, inventory, control, general ledger, etc.

Vendors' claims and promises concerning the availability and capability of software should be carefully checked. This is particularly true of software that has been announced but not yet released. Vendors have frequently failed to live up to their marketing publicity.

Since SBC users typically start with no programming staffs of their own, it is important that appropriate program packages be available to fit your specific requirements. If not, you should require the vendor to take on full responsibility to write and test the initial programs you will need. Otherwise, you will have to either recruit and train your own programmers or pay an outside software firm to develop your programs. If not kept under strict control, software costs can accumulate until they equal, or even exceed, hardware costs. Potential dollar savings can be quickly devoured by software costs.

The availability of reliable and qualified vendor support for both equipment maintenance and software aid is another vitally important factor in the business minicomputer environment. The limited resources generally available to small computer users make you depend heavily on your vendor for such assistance. In many cases the vendor will even design the initial system and make any required changes to his program packages for you. Thus, the ability of the vendor to render competent and continuing service in these matters is a vital concern to you.

Some vendors do not offer equipment maintenance and/or software to complement their hardware offerings. In this case, the user must deal with independent firms in order to complete the package. In one respect this is good, because overall costs may well be lower. However, when a problem occurs, the finger-pointing game can begin: one vendor blaming the other for the system's malfunction. Fortunately, this kind of reaction is in the minority, and despite the potential for problems, the multi-vendor approach can work well. If it didn't, the independent equipment maintenance and software firms would disappear, and that just isn't happening.

Most potential users of an SBC naturally raise the question of purchase versus lease. The single most important consideration is the length of time that this particular system is likely to be able to handle the data processing requirements of your company. Is there room for system expansion, with regard to both the processor and the peripherals, or is this the top of the line? In most cases, it is not a wise decision to make your first system the most powerful system offered by a particular vendor. If your company's operations expand, how will you expand the system? Will you have to acquire a new and more expensive processor? Or, worse yet, will you have to change vendors? Generally, if you are confident that a particular system can handle your data processing needs for five years or more, then purchasing the system will be advantageous. However, if you have selected the top of the line or if there are fewer than five years of potential life in the system, you will probably be better off to lease.

The Comparison Charts

The principal characteristics of 369 small business computers from 87 vendors are presented in the accompanying comparison charts. All of these systems are currently being marketed in the United States. Nearly all of the information in the charts was supplied and/or verified by the manufacturers or U.S. suppliers during November and December 1981; their close cooperation with the Datapro Research staff in the preparation of these charts is gratefully acknowledged.

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The MAI/Basic Four System 210 features 64K bytes of main memory (expandable to 256K bytes in 32K-byte increments), a disk storage capacity of 57.4M bytes, and a cartridge tape drive providing 9.2M bytes of additional storage. Introduced in July 1981, the System 210 is available for $25,740.

▷ No report on today's small business computers could be totally complete. The field of suppliers is just too large and growing too fast. We have, however, made every reasonable effort to include all of the major suppliers and a high proportion of the smaller ones as well. The absence of any company's products from these comparison charts means either that the company was unknown to us or that it failed to respond to our repeated requests for information.

The comparison chart entries and their significance to potential users of small business computers are explained in the following paragraphs, together with some useful guidelines for selecting the equipment that will most effectively meet your needs.

Data Formats

This section of the comparison charts describes the formats used to store and process data within each system.

Word length is the number of bits (binary digits) of data that can be stored in or retrieved from the internal storage unit during a single cycle. Some SBCs have a "fixed word length," meaning that each machine word or operand always has the same number of bits, digits, or characters. Others have a "variable word length," meaning that their operands may consist of a variable number of bits, digits, or characters. In the latter case, the "word length" entry shows the number of data bits used to represent each byte or character within the variable-length operands.

CPU

Model indicates the manufacturer and model of the minicomputer or microprocessor used as the system's central processing unit (CPU). In some cases this entry will be identical with the entry at the top of the chart; however, in the case of a packaged turnkey system, the entries will differ.

Add time is the time required, in microseconds, to develop the arithmetic sum of two operands. It is a widely used measure of computer performance—but a figure that turns out to be of comparatively little importance in the selection of many SBCs. The reason is that the overall speed of many of these systems is largely determined by the operator's keying speed. Add times for the systems covered in our survey span the range from less than a microsecond to more than half a second—yet in many applications the key question is still whether the operator can "beat the machine." If not, the machine is probably as fast as it needs to be for these keyboard-oriented business applications. (It should be noted that for larger equipment configurations, in applications where there are two or more operators at separate terminals or where the transaction data is prerecorded on cards, or tape, add times—and internal speeds in general—become highly significant considerations.)

Number of I/O ports is an indication of the input/output capability and expandability of the system. Generally, each port allows the user to interface one peripheral device to the system, although multiple disks, CRTs or communication lines are often interfaced to one I/O port. Two numbers are given wherever possible, the first indicating the number of ports included on the basic system and the second showing the maximum number of ports that can optionally be included. Some of the figures are quite large and indicate that the vendors took into consideration the use of multiple-device interfaces and the maximum number of terminal devices theoretically connectable. It should be noted that additional hardware, ▷

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in the form of expansion chassis and power supplies, may have to be added to achieve the maximum I/O capability.

Internal Storage

One of the principal characteristics that distinguishes computers from adding machines and conventional accounting machines is the provision of an internal storage unit capable of holding and selectively retrieving a significant quantity of data and/or instructions. This section of the comparison charts describes each system's internal storage facilities.

Type indicates whether the system uses core or MOS (semiconductor) memory. Magnetic core storage has been widely used for more than a decade, and has proved to be fast, flexible, and reliable. However, the less-expensive semiconductor storage has superseded core storage as the principal storage medium for large computers. When both types of memory are available for a system, we have made every attempt to denote the specifications for both.

Capacity of basic system, bytes, specifies the amount of memory included in the basic system. The amount of internal storage is one of the most significant characteristics in appraising the power of any computer. The amount of productive processing that a computer can perform during any one run is largely determined by the number of instructions and/or operands it can hold.

Maximum capacity, bytes shows the largest memory size available for this model; *increment size, bytes* indicates the size of the memory modules that can be added to expand the basic system.

Cycle/access time, microseconds. Cycle time is the minimum time interval that must elapse between the starts of two successive accesses to any one storage location. The storage cycle time normally ranges with word length as one of the most significant individual indicators of a computer's performance potential. However, as discussed earlier, the throughput of the equipment covered in this report is frequently determined by the operator's keying speed rather than by the machine's internal performance. *Access time* is the actual elapsed time between the CPU's request for data and the time when that data is received (read). In core memory, the access time is usually one-half the cycle time; MOS memories do not display a similar relationship.

Mass Storage Capabilities

The inclusion of mass storage devices (magnetic disk units) can greatly increase the data storage and processing capabilities of a business data processing system. Disk units enable millions of characters of information to be constantly accessible to the computer. Moreover, any desired record can be retrieved, updated, and re-recorded on the disk, usually within a fraction of a second.

By replacing or augmenting slower, less-flexible file storage media such as punched cards, paper tape, or magnetic ledger cards, disk units can enable small business computers to handle applications and processing volumes that would otherwise be impossible. The principal disadvantages of disk units are their comparatively high costs and the software complexities that are encountered by users who attempt to harness their full potential. One or both of these considerations may make disk units impractical for many small computer buyers, despite the obvious appeal of disk-oriented data processing.

The diskette, or "floppy disk," is an innovation that can significantly reduces the cost of disk-oriented data proc-processing. The diskette itself consists of a flexible Mylar disk, about 5.25 or 8 inches in diameter, that is permanently housed in a plastic envelope. It can serve as an input/output and/or random-access storage medium that is considerably smaller in capability and slower in performance than conventional disk units—but also far lower in cost. Introduced by IBM in 1972, diskettes and diskette drive units are now being produced by dozens of vendors and are finding their way into numerous small business computer systems, such as the IBM System/23 and the DEC Datasystem 315. Recent enhancements to the floppy disk concept include more concentrated data storage and "flippies" (floppy disks that utilize both sides of the diskette), allowing more data to be stored on-line.

The other, more conventional types of mass storage devices, cartridge and disk pack drives, provide access to far more data and at significantly faster rates. Unfortunately, they also carry price tags several times higher than their floppy counterparts. Most of these units employ cartridges or disk packs that can easily be removed from the drive units and interchanged in much the same manner as magnetic tape reels.

Some cartridge-type units either use nonremovable media or use two cartridges, one fixed and the other removable. Nonremovable disks impose two important limitations. First, the system's file storage capacity is effectively limited to the amount of information that can be stored on-line. Second, disk dumps to create backup files for efficient restart procedures in case of catastrophe are not available to the user.

Interchangeable disks, conversely, provide great flexibility and make it practical to use small business computers effectively for both sequential and random data processing applications. In sequential applications, files of virtually unlimited size can be handled through the use of multiple disk packs or cartridges.

Fixed-head (head-per-track) disk and drum units can provide much faster access to on-line data than any other type of mass storage device. The reason is that there is no loss of time due to head positioning because a head is provided for each track. The only delay is rotational delay

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(latency), or the time required for the desired data to move under the read/write head. But the price of this type of equipment is higher than that of the preceding varieties, and less data can be stored on-line. Fixed-head devices are used when data bases are relatively small and very rapid access to the information is required. Most SBC users are not faced with such demanding requirements, but for those who need them, the devices are offered by some vendors.

Entries in this section of the charts fall into four categories: *floppy disk drive, cartridge disk drive, pack disk drive,* and *fixed-head disk/drum.* The entries indicate which devices are standard on the basic system and which ones are optional or not available.

Some SBCs are not marketed as packaged systems; thus, the user is required to pick and choose the particular devices that best suit his needs. In this case, all peripherals are indicated as optional, and this should be reflected in a lower "basic system" price.

These entries also specify the maximum storage capacity of the particular type of unit that is directly accessible to the computer at any one time. The indicated figure may be the capacity of a single disk drive or the total capacity of two or more (typically, four to eight) drives that can be connected to one controller. The maximum capacity entries show the total diskette storage and hard disk storage that can be configured with the model.

Workstations

Maximum number connectable is the largest number of workstations that can be configured with this model.

Recommended maximum number is the number of workstations that the manufacturer recommends be on-line with this model for efficient performance.

Keyboard style is the type of keyboard used with the workstation. Most are alphanumeric (typewriter) style, with or without numeric keyboards.

The *Workstation printer* entry indicates whether or not a printer can be attached to a workstation for hard-copy output, and if it is a standard or optional item.

Input/Output Devices

Most SBCs can be equipped with additional input/output devices, the most common of these being printers, reel-to-reel or cassette tape drives, and CRTs. Chart entries depict which of these devices are standard on the basic system and which are optional or not available. Once again, non-packaged systems will have all the available I/O devices listed as optional. The comparison charts also indicated the rated speeds or sizes, or a range, available for the peripheral device wherever the information could be obtained.

Other types of I/O devices, such as punched card and paper tape equipment, are indicated in the *Other* entry on the chart. This entry indicates whether this type of equipment is available or not, and if so, as standard or optional equipment. In some cases the type of equipment available is specified.

Serial (character-at-a-time) printers are enjoying increased popularity with the prolific growth of the small business computer marketplace. The main reason is price; serial printers can provide excellent-quality hard-copy reports for far less money than the line-at-a-time printers used with larger computers. However, for users who require faster printing capabilities, line printers are also available for many SBCs. Serial printers generally range in speed from about 30 to 600 or more characters per second (cps), while line printers operate at speeds of 100 to 2000 or more lines per minute (lpm). The user who needs faster printed output can obviously get it, but he must be willing to pay the higher price tag associated with the line printers.

CRTs are becoming increasingly important to the small business computer. Many systems now include a CRT display and its associated keyboard as the principal means of entering data into the system. In fact, on many SBCs, one or more CRT/keyboard units represent the *only* way to enter data into the system. The comparison charts indicate the capacity of the CRT, in number of lines and characters per line, whenever possible.

Communications Capabilities

Communications capabilities enable some of the small business computers to function as "intelligent terminals" in data communications networks. An interface equips the small computer to send and receive data over a common-carrier communications link, usually to a larger central computer installation. The small computer's internal processing and storage capabilities enable it to do some data processing locally and to handle a variety of code translation, editing, and control functions in connection with the data communications activities.

Maximum no. of lines indicates how many communications lines can be handled by a particular system. The types of lines are specified in the next two entries.

Synchronous and *asynchronous* have entries of standard, optional, or no, indicating their availability, and also a notation as to the speed of each line in bits per second (bps). Most entries will be of the type "to 9600 bps," indicating one or more transmission speeds up to a maximum of 9600 bps.

Protocols supported indicates the type of communication protocols accommodated by hardware and software for the model.

Network architecture supported indicates the communications network architecture employed by this model. Entries may include, for example, Burroughs' NDL, DEC's DECnet, or IBM's SNA.

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▷ *RJE terminals emulated* indicates whether there is software available from the vendor for this SBC to enable it to function as a "look-alike" for remote job entry terminals. The terminals for which support is provided is indicated. *IBM 3270 emulation* is listed as a separate entry as a result of an increasing amount of interest from our users concerning the emulation of the IBM 3270 Information Display System.

Software Support

Virtually as important as the computer hardware are the software and technical support each manufacturer furnishes to aid the user in utilizing the hardware effectively. The available software (if any), together with the pricing policies for both software and support, are summarized in this section of the comparison charts.

COBOL (COmmon Business Oriented language), *RPG* (Report Program Generator), *FORTRAN* (FORmula TRANslator), and *BASIC* (Beginners All-purpose Symbolic Instruction Code) entries specify whether a particular compiler is available or not.

A *compiler* is a software tool designed to shift part of the program preparation task from the user to the computer itself by converting programs written in a simplified, procedure-oriented language into machine-language object programs. Compilers are now used in virtually all large and medium-scale computer installations because of their demonstrated ability to slash programming costs—and they are becoming increasingly available for the small business computers. This trend is possible because of the more powerful central processors now being used, since compilation is an intricate process that requires more storage space and processing power than the earlier small business computers provided. Where compilers are offered, however, they frequently limit the programmer to restricted subsets of the standard programming languages and/or require the use of a larger computer to perform the compilation process.

An *assembler* is a special-purpose program that uses the computer's power to facilitate the preparation of other programs. It enables the programmer to write his own program in a simplified format that uses mnemonic operation codes and symbolic operand addresses. The assembler program then converts these symbolic instructions into their machine-language equivalents, producing computer programs ready for loading and execution. Entries here indicate the availability of an assembler or, in some cases, a macro assembler.

A macro assembler is another software tool to aid the programmer and make his job a little easier. Macro routines can be called by the programmer and copied right into his program. This saves the programmer from having to recode the routine each time it is used and also eliminates the possibility of keying errors when that part of the program is entered. As usual, there is a price to pay: the use of macros usually wastes memory space.

Other programming languages specifies languages such as Algol, Snobol, or proprietary languages that are available from a vendor for use on a particular SBC. The key word of warning here is that if you use a language that is unique to a vendor, you will be faced with a big problem if someday you decide to change vendors. Your investment in software will be lost, since the programs will not operate on any other system without extensive conversion work.

Multiprogramming gives an indication as to the power of the small business computer. Entries here stipulate yes or no, and, if multiprogramming is available, the number of partitions in memory. Multiple partitions allow for concurrent operation of several programs, thus permitting more processing to be accomplished in less time.

Maximum number of jobs that can run concurrently indicates the number of different independent job streams that can be running in the system simultaneously. This number may or may not be the same as the number of partitions in memory, since multiple jobs may be able to function within the same partition.

Language implemented in firmware and *operating system implemented in firmware* tell the reader whether or not the language processor and/or the operating system are contained in microcode. The entries stipulate yes, partially, or no to indicate the extent of firmware implementation. An advantage to the user is that a language and/or operating system implemented in firmware frees up more memory space for the user's programs and data. Also, the microcode is usually inaccessible to the user (generally contained in read-only memory), eliminating any possible tampering with the language processor or operating system and reducing chances for error. A third advantage derived from firmware implementation is the ability to create more sophisticated and complex system functions at the hardware level. Microcode routines can be substituted for often-used subroutines, thereby increasing system performance.

General accounting packages indicates the availability of already-written software to handle the normal accounting functions of a company. The most common business functions include payroll, accounts payable, accounts receivable, inventory control, and general ledger accounting. If available, and if these programs can be tailored to meet the requirements of a particular company, they will allow the user to become operational in far less time and at a substantial saving in software development costs.

Industry application areas denotes specific areas where each vendor specializes. Turnkey vendors often take one segment of the marketplace and develop in-house expertise to the point that their hardware and software combination becomes a ready-made answer to the problems of a large class of users. Some current areas of specialization include hospitals, automobile dealers, the distribution industry, trucking firms, and the financial industry. If the vendor's specialized software can be tailored to the user's exact needs, or if the user can learn to live within the ▷

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constraints of the existing software, thousands of dollars worth of programming effort can be saved. A library of pertinent applications programs can be a valuable asset when selecting an SBC. Space precludes a complete listing of available applications software in the charts, so the entries attempt to summarize and present the vendor's areas of heaviest concentration.

The availability of a *data base management system* is becoming more important to users of small business computers. A DBMS is a software system that is intended to manage and maintain data in a nonredundant structure for the purpose of being processed by multiple applications. It organizes data elements in some predefined structure and retains relationships between different data elements within the data base. The main advantage to the user of a data base management system is that information retrieval and report generation are made much easier with one common data base.

File access methods supported tells the user which methods are supported by the software available for a particular system. The entries include random, sequential, indexed sequential, and direct access. These four file access methods are the most popular, but there are others in use. In most instances it is desirable to have several access methods supported so that you can choose the one most suitable for each application.

Software separately priced tells whether the software described in the preceding entries, and any other available software, is included in the equipment price or offered at some additional cost. Some systems have the entry "some," which usually indicates that the company provides the operating systems and language processors bundled with the hardware, but charges for applications software packages. Separate pricing of software was virtually unheard of in the computer field until June 1969, when IBM "unbundled" by placing separate price tags on many of its software products and professional services. Since then, the various manufacturers have adopted a wide range of software pricing policies. Separate pricing of software, of itself, is neither good nor bad; the buyer must carefully assess the cost of the total package consisting of the equipment and all the software and support his installation will require.

Technical help separately priced indicates whether the services of the manufacturer's technical support staff are included in the equipment cost or separately priced. Nearly every company that is installing a computer for the first time will need a good deal of help from the equipment maker's systems analysts, programmers, and/or instructors (or, alternatively, from an independent consulting firm). In fact, the equipment supplier does *all* the programming for the majority of small business computer installations (more than 90 percent, in the case of one major supplier). The additional cost of these services, if any, should be carefully estimated and considered in all equipment comparisons.

Lease/Maintenance Options

Lease plans available indicates whether the model is available for lease from the vendor or other sources, and the term length of the lease plans.

Maintenance plans available depicts the type of maintenance contracts available from the vendor, or whether maintenance is handled by a third party.

Pricing and Availability

Purchase price of basic system shows the minimum purchase price of a system equipped to perform basic business data processing functions. All of the facilities identified as "standard" in the charts (but none of the "optional" ones) are included in the listed prices. The addition of expanded storage capacities or optional input/output capabilities can lead to large price increases in nearly every case. Any additional information about the basic system or packaged system (if one exists) not covered in specific chart entries appears in the *Comments* section. For detailed pricing information, the manufacturers should be contacted directly.

Monthly rental of basic system specifies the monthly rental for the basic configuration of each system, as described above. All rental prices are based on a one-year lease and include equipment maintenance unless otherwise indicated. Longer-term leases are frequently available at lower monthly charges. Some systems are not available on a rental basis from the vendor and are so specified by an entry of "purchase only." In such cases, a prospective user can nearly always obtain a full-payout lease for the SBC of his choice from an independent leasing firm.

Monthly maintenance price of basic system shows the maintenance costs of the basic system as described above, while Monthly maintenance bundled with rental indicates whether or not the rental price given includes the cost of maintenance.

Purchase price of additional memory modules, workstations, and *printers* shows the cost of each additional unit when added to the basic system configuration, if available.

Discounts available indicates the types of discounts offered by the vendor for this model. This entry will vary by model for many manufacturers with multiple lines of systems.

Date of first U.S. delivery tells when the first production models of each system were delivered (or are scheduled to be delivered) to customers in the United States.

Number installed to date shows how many systems of each type had been delivered to U.S. customers as of approximately December, 1981. Nearly all of the figures were supplied by the manufacturers themselves.

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▷ **Comments**

This final entry on the comparison charts is used to explain or amplify the preceding entries and to provide other pertinent information about each system's hardware, software, pricing, or applications.

Suppliers

Listed below, for your convenience in obtaining additional information, are the full names, addresses, and telephone numbers of the 87 suppliers whose products are listed in the comparison charts that follow.

Accelerated Data Systems, 1183 Bordeau, Suite 18, Sunnyvale, CA 94086. Telephone (408) 744-0264.

A.K. Industries, Inc., 1690 Republic Road, Huntingdon Valley, PA 19006. Telephone (215) 322-7500.

Alpha Micro, 17881 Sky Park North, P.O. Box 18347, Irvine, CA 92714. Telephone (714) 957-1404.

AM Jacquard Systems, Executive Branch, 3340 Ocean Park Boulevard, Santa Monica, CA 90405. Telephone (213) 450-1242.

Applied Digital Communications, 214 Flynn Avenue, Moorestown, NJ 08057. Telephone (609) 234-3666.

Applied Digital Data Systems (ADDS), 100 Marcus Boulevard, Hauppauge, NY 11787. Telephone (516) 231-5400.

Applied Systems Corporation, 26401 Harper Avenue, St. Clair Shores, MI 48081. Telephone (313) 779-8700.

Archives Incorporated, 404 West 35th Street, Davenport, IA 52806. Telephone (319) 386-7401.

Ardent Computer Products, 145 Palasades, St. Dobbs Ferry, NY 10522. Telephone (914) 693-6900.

BBN Computer Corporation, 33 Moulton Street, Cambridge, MA 02238. Telephone (617) 491-1850.

Billings Computer, Computer Division, 18600 East 37th Terrace, Independence, MO 64057. Telephone (816) 373-0000.

BTI Computer Systems, Inc., 870 West Maude Avenue, Sunnyvale, CA 94086. Telephone (408) 733-1122.

Burroughs Corporation, Burroughs Place, Detroit, MI 48232. Telephone (313) 972-7000.

CADO Systems Corporation, 2771 Toledo Street, Torrance, CA 90503. Telephone (213) 320-9660.

Canon U.S.A., Inc., One Canon Plaza, Lake Success, NY 11402. Telephone (516) 488-6700.

Centurion Computer Corporation, 1780 Jay Ell Drive, Richardson, TX 75081. Telephone (214) 699-8400.

Century Computer Corporation, 14453 Gillis Road, Dallas, TX 75234. Telephone (214) 233-3238.

Compal Computer Systems, 6300 Variel Avenue, Suite E, Woodland Hills, CA 91367. Telephone (213) 992-4425.

Complete Computer Systems, 159 Gibraltar Road, Horsham, PA 19044. Telephone (215) 441-4200.

Compucorp, 1901 South Bundy Drive, Los Angeles, CA 90025. Telephone (213) 820-2503.

Computer Automation, Inc. (Naked Mini Division), 18651 Von Karman, Irvine, CA 92713. Telephone (714) 833-8830.

Computer Automation, Inc. (SyFA Systems Division), 2181 Dupont Avenue, Irvine, CA 92713. Telephone (714) 833-8830.

Computer Data Access (CDA), Inc., 1373 Broad Street, Clifton, NJ 07011. Telephone (201) 473-4700.

Computer Designed Systems, Inc., 10911 Olson Memorial Highway, Minneapolis, MN 55441. Telephone (612) 545-2855.

Computer Hardware, Inc., 4111 North Freeway Boulevard, P.O. Box 25500, Sacramento, CA 95834. Telephone (916) 929-2020.

Convergent Technologies, 2500 Augustine Drive, Santa Clara, CA 95051. Telephone (408) 727-8830.

Data Communications Corporation, 3000 Directors Row, Memphis, TN 38131. Telephone (901) 345-3544.

Data General Corporation, 4400 Computer Drive, Westboro, MA 01581. Telephone (617) 366-8911.

Datapoint Corporation, 9725 Datapoint Drive, San Antonio, TX 78284. Telephone (512) 699-7000.

Dicom Industries, Inc., 715 North Pastoria Avenue, Sunnyvale, CA 94086. Telephone (408) 732-1060.

Digilog Business Systems, Inc., Babylon Road, Horsham, PA 19044. Telephone (215) 443-8300.

Digital Equipment Corporation (DEC), 129 Parker Street, Maynard, MA 01754. Telephone (617) 897-5111.

Digital Systems Corporation, P.O. Box 158, Walkersville, MD 21793. Telephone (301) 845-4141.

Dimis, Incorporated, 1060 Highway 35, Middletown, NJ 07748. Telephone (201) 671-1011.

Display Data Corporation, Executive Plaza IV, Hunt Valley, MD 21031. Telephone (301) 667-9211.

Distribution Management Systems, Inc., 11 De Angelo Drive, Bedford, MA 01730. Telephone (617) 272-2000.

Durango Systems, Inc., 3003 North First Street, San Jose, CA 95134. Telephone (408) 946-5000.

Dynabyte Business Computers, 521 Cottonwood Drive, Milpitas, CA 95035. Telephone (408) 263-1221.

EPCOM Computer Systems, Inc., 11425-A Sorrento Valley Road, San Diego, CA 92121. Telephone (714) 453-6050.

Evolution Computer Systems Corp., 17911 Sky Park Circle, Suite E, Irvine, CA 92714. Telephone (714) 974-7670.

Four-Phase Systems, Inc., 10700 North De Anza Boulevard, Cupertino, CA 95014. Telephone (408) 255-0900.

Geac Incorporated, 309 Seaside Avenue, Milford, CT 06460. Telephone (203) 877-1486.

Hewlett-Packard, Computer Systems Division, 19447 Pruneridge Avenue, Cupertino, CA 95014. Telephone (408) 725-8111.

Hewlett-Packard, General Systems Division, 19447 Pruneridge Avenue, Cupertino, CA 95014. Telephone (408) 725-8111.

Hewlett-Packard, Information Networks Division, 19420 Homestead Road, Cupertino, CA 95014. Telephone (408) 725-8111. ▷

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▷ **Honeywell Information Systems, Inc.,** 200 Smith Street, Waltham, MA 01821. Telephone (617) 671-6000.

IBM Corporation, General Systems Division, P.O. Box 2150, Atlanta, GA 30301. Telephone (404) 238-2000.

ICL/North America Operations, 415 East Airport Freeway, Irving, TX 75062. Telephone (214) 258-8525.

Industrial Micro Systems, Inc., 2800 Lockheed Way, Carson City, NV 89701. Telephone (702) 883-7611.

Infomark, Inc., 9 North Bacton Hill Road, Frazer, PA 19355. Telephone (215) 647-8685.

Infotecs Computer Systems, One Perimeter Road, Manchester, NH 03103. Telephone (603) 624-2700.

Lazor Systems, Inc., 1050 East Duane Avenue, Sunnyvale, CA 94086. Telephone (408) 735-1188.

Logical Business Machines, 1294 Hammerwood Avenue, Sunnyvale, CA 94086. Telephone (408) 744-1290.

MAI/Basic Four Corporation, 14101 Myford Road, Tustin, CA 92680. Telephone (714) 731-5100.

MCM Computers Limited, 6815 Rexwood Road, Unit #9, Mississauga, Ontario, Canada L4V 1R2. Telephone (416) 678-7854.

Mercator Business Systems, 1294 Lawrence Station Road, Sunnyvale, CA 94086. Telephone (408) 734-5134.

MicroFive Corporation, 17791 Sky Park Circle, Irvine, CA 92714. Telephone (714) 957-1517.

MicroDaSys, Inc., 2811 Wilshire Boulevard, Santa Monica, CA 90403. Telephone (213) 829-6781.

Midwest Scientific Instruments, Inc., 220 West Cedar, Olathe, KS 66061. Telephone (913) 764-3273.

Mini-Computer Systems, Inc. (MICOS), 399 Fairview Park Drive, Elmsford, NY 10523. Telephone (914) 592-8812.

Mitsubishi Electronics America, Inc., 2200 West Artesia Boulevard, Compton, CA 90220. Telephone (213) 979-6055.

Mylee Digital Sciences, Inc., 155 Weldon Parkway, Maryland Heights, MO 63043. Telephone (314) 567-3420.

NCR Corporation, 1700 South Patterson Boulevard, Dayton, OH 45479. Telephone (513) 445-5000.

NEC Information Systems, Inc., 5 Militia Drive, Lexington, MA 02173. Telephone (617) 862-3120.

New England Digital Corporation, P.O. Box 546, White River Junction, VT 05001. Telephone (802) 649-5183.

Nixdorf Computer Corporation, 300 Third Avenue, Waltham, MA 02154. Telephone (617) 890-3600.

North Star Computers, Inc., 14440 Catalina Street, San Leandro, CA 94577. Telephone (415) 357-8500.

Olivetti Corporation of America, 155 White Plains Road, Tarrytown, NY 10591. Telephone (914) 631-8100.

Pertec Computer Corporation, 12910 Culver Boulevard, P.O. Box 92300, Los Angeles, CA 90009. Telephone (213) 822-9222.

Point 4 Data Corporation, 2569 McCabe Way, Irvine, CA 92714. Telephone (714) 754-4114.

PolyMorphic Systems, 460 Ward Drive, Santa Barbara, CA 93111. Telephone (805) 964-1501.

Prime Computer, Inc., Prime Park, Natick, MA 01760. Telephone (617) 655-8000.

Prodigy Systems, Inc., 497 Lincoln Highway, Iselin, NJ 08830. Telephone (201) 283-2000.

Programmed Control Corporation, 2 East Broad Street, Hopewell, NJ 08525. Telephone (609) 466-2100.

Quodata Corporation, 196 Trumbull Street, Hartford, CT 06103. Telephone (203) 728-6777.

Rexon Business Machines Corporation, 5800 Uplander Way, Culver City, CA 90230. Telephone (213) 641-7110.

Scientific Data Systems, Inc., 344 Main Street, Venice, CA 90291. Telephone (213) 390-8673.

Sentinel Computer Corporation, 9902 Carver Road, Cincinnati, OH 45242. Telephone (513) 984-6622.

Sharp Electronics Corporation, Systems Division, 10 Keystone Place, P.O. Box 588, Paramus, NJ 07652. Telephone (201) 265-5600.

Sperry Rand Corporation, Sperry Univac Division, P.O. Box 500, Blue Bell, PA 19424. Telephone (215) 542-4011.

STC Systems, Inc., Nine Brook Avenue, Maywood, NJ 07607. Telephone (201) 845-0500.

Symcro Systems, Inc., 7300 Crescent Boulevard, Pennsauken, NJ 08110. Telephone (609) 663-0300.

Systems Group, a division of Measurement Systems & Controls, Inc., 1601 West Orangewood Avenue, Orange, CA 92668. Telephone (714) 633-4460.

Technico, Inc., 9103 Red Branch Road, Columbia, MD 21045. Telephone (301) 995-1995 or (301) 596-4100.

TeleVideo Systems, Inc., 1170 Morse Avenue, Sunnyvale, CA 94086. Telephone (408) 745-7760.

Texas Instruments, Inc., P.O. Box 2909, Austin, TX 78769. Telephone (512) 250-7305.

Three Rivers Computer Corporation, 720 Gross Street, Pittsburgh, PA 15224. Telephone (412) 621-6250.

Vector Graphic, Inc., 500 North Ventu Park Road, Thousand Oaks, CA 91320. Telephone (805) 499-5831.

Wang Laboratories, Inc., One Industrial Avenue, Lowell, MA 01851. Telephone (617) 459-5000.

Zeda Computer International, 1662 West 820 North, Provo, UT 84601. Telephone (801) 377-9948.□

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MANUFACTURER AND MODEL	Accelerated Data Systems Infinity System 100	Accelerated Data Systems Infinity System 200	A.K. Industries Inc. AKI 82	A.K. Industries Inc. AKI 805	Alpha Micro AM-1010
WORD LENGTH, BITS	16, 24, 32	16, 24, 32	8	8	16
CPU					
Model	ADS-100	ADS-200	Zilog Z80	Zilog Z80	Western Digital-16
Add time, microseconds	0.2 (16 bits)	0.09 (16 bits)	1	1	7
No. of I/O ports on basic sys. and max.	256	256	3	3-11	6 std. (12 max.)
INTERNAL STORAGE					
Type	MOS	MOS	MOS, RAM	MOS, RAM	MOS, RAM
Capacity of basic system, bytes	128K	128K	64K (RAM), 2K (ROM)	64K (RAM), 2K (ROM)	64K
Maximum capacity, bytes	16M	16M	—	256K	640K
Increment size, bytes	—	—	—	64K	64K and 128K
Cycle/access time, microseconds	0.2	0.09	0.375/0.200	0.375/0.200	0.5/0.5
MASS STORAGE					
Floppy disk (diskette) drive	—	—	Std.; (2) 1M bytes	Std.; (1) 0.5M bytes	Std.; (2) 2.4M bytes
Maximum diskette storage	—	—	1.5M bytes	1.0M bytes	2.4M bytes
Cartridge disk drive	16M bytes	16M bytes	—	—	Optional; 10-360 MB
Pack disk drive	32/96M bytes	32/96M bytes	—	—	Opt.; 25-2400 MB
Fixed-head disk/drum	32M bytes	32M bytes	—	5MB Winchester	No
Maximum disk storage	—	—	—	40M bytes	2400M bytes
WORKSTATIONS					
Maximum number connectable	32	32	1	10	24
Recommended maximum number	24	32	—	Application depend.	—
Keyboard style	Typewriter	Typewriter	Type., numeric pad	Type., numeric pad	—
Workstation printer	Opt. slave printer	Opt. slave printer	—	—	—
INPUT/OUTPUT DEVICES					
Serial printer	200 cps	200 cps	Std.; 100 cps	Std.; 100 cps	RS-232-C-comp.
Line printer	180 lpm	180 lpm	Opt.; 200 cps	Opt.; 200 cps	Opt.; up to 900 lpm
Reel-to-reel tape drive	Yes, 16 ips	Yes, 16 ips	—	—	Opt. 4 units; 37.5 ips
Cassette/cartridge tape drive	Yes, 16m bytes	Yes, 16m bytes	—	—	—
CRT	1920 char.	1920 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Opt.; RS-232-C-comp.
Other	—	—	—	A/D-D/A, cash registers, badge readers	—
COMMUNICATIONS					
Maximum no. of lines	Unlimited	Unlimited	1	8	12
Synchronous	1.9K bps	1.9K bps	Std.; 9600 bps	Std.; 500K bps	6 std.
Asynchronous	1200 bps	1200 bps	Std.; 9600 bps	Std.; 9600 bps	6 std.
Protocols supported	3270, SDLC	3270, SDLC	Async, SDLC	Async, SDLC	2780/3780
Network architecture supported	—	—	—	—	Via AlphaLINK
RJE terminals emulated	2780/3780	2780/3780	—	—	(Currently in devel.)
IBM 3270 emulation	Yes	Yes	No	No	(Currently in devel.)
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Optional
RPG	Yes	Yes	No	No	No
Fortran	Yes	Yes	Yes	Yes	Optional
Basic	Yes	Yes	Yes	Yes	Yes (std.)
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	Pascal	Pascal	Pascal, Forth, PL/1	Pascal, Forth, PL/1	Pascal, Lisp
Multiprogramming	Yes, 32 partitions	Yes, 32 partitions	No	Yes, 16 partitions	Yes, (no. not restr.)
Max. no. of jobs run concurrently	Varies	Varies	—	16	Not restricted
Language complemented in firmware	Yes	Yes	No	No	No
Op. sys. implemented in firmware	No	No	No, (CP/M2)	No, see Comments	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	General-purpose	General-purpose	Mfg., wholesale, WP	Mfg., wholesale, WP	General-purpose
Data base management system	No	No	Yes	Yes	Yes
File access methods supported	Yes	Yes	Sequential, random	Sequential random	Random, seq., ISAM
Software separately priced	Yes	Yes	Yes	Yes	No
Technical help separately priced	Partly	Partly	Yes	Yes	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	3-, 5-yr.	3-, 5-yr.	5-yr.	5-yr.	Contact vendor
Maintenance plans available	Various	Various	Depot, on-site (on call or contract)	Depot, on-site (on call or contract)	Contact vendor
PRICING & AVAILABILITY					
Purchase price of basic system, $	9,900	14,900	9,000	11,000	Contact vendor
Monthly rental of basic system, $	—	—	Contact vendor	Contact vendor	Contact vendor
Monthly maint. price of basic system, $	125	150	105	115	Contact vendor
Monthly maint. bundled with rental, $	—	—	—	—	Contact vendor
Purchase price of:					
additional memory module, $	6,000	6,000	—	750 (64KB)	Contact vendor
additional workstations, $	1,900	1,900	—	950	Contact vendor
additional printer, $	1,900	1,900	—	1,000	Contact vendor
Discounts available	To 40 percent	To 40 percent	Quantity	Quantity	Contact vendor
Date of first U.S. delivery	1981	1982	August 1979	August 1981	June 1978
Number installed to date	NA	NA	NA	NA	NA
COMMENTS				CP/M2 operating system is standard and MP/M2 operating system is optional; basic system is a single-user system, but can be changed to a multi-user system	Includes the Alpha Micro Operating System (AMOS); supports any RS-232-C-compatible peripherals; over 150 application programs available

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MANUFACTURER AND MODEL	Alpha Micro AM-1011	Alpha Micro AM-1020	Alpha Micro AM-1021	Alpha Micro AM-1030	Alpha Micro AM-1031
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	Western Digital-16	Western Digital-16	AM-100/T	Western Digital-16	Western Digital-16
Add time, microseconds	3.7	—	—	7	3.7
No. of I/O ports on basic sys. and max.	2 std. (14 max.)	2, 8	2, 14	6 std. (24 max.)	2 std. (24 max.)
INTERNAL STORAGE					
Type	MOS, RAM	MOS, RAM	MOS, RAM	MOS, RAM	MOS, RAM
Capacity of basic system, bytes	64K	128K	128K	64K	64K
Maximum capacity, bytes	768K	384K	512K	2048K	2048K
Increment size, bytes	64K and 128K	128K	128K	64K and 128K	64K and 128K
Cycle/access time, microseconds	0.3/0.3	—	—	0.5/0.5	0.3/0.3
MASS STORAGE					
Floppy disk (diskette) drive	Std.; (2) 2.4M bytes	Opt.; 1.2M bytes	Opt.; 1.2M bytes	Opt.; to 4.8M bytes	Opt.; to 4.8M bytes
Maximum diskette storage	2.4M bytes	1.2M bytes	1.2M bytes	Opt.; to 4.8M bytes	Opt.; to 4.8M bytes
Cartridge disk drive	Optional; 10-360MB	No	No	10MB (std.); 360MB	10MB (std.); 360MB
Pack disk drive	Optional; 25-2400MB	No	No	Opt.; 25-2400MB	Opt.; 25-2400MB
Fixed-head disk/drum	No	Std.; 8.5MB (Winch.)	Std.; 8.5MB (Winch.)	No	No
Maximum disk storage	2400M bytes	8.5M bytes	8.5M bytes	2400M bytes	2400M bytes
WORKSTATIONS					
Maximum number connectable	24	24	24	24	24
Recommended maximum number	—	—	—	—	—
Keyboard style	—	—	—	—	—
Workstation printer	—	—	—	—	—
INPUT/OUTPUT DEVICES					
Serial printer	RS-232-C-comp.	RS-232-C-comp.	RS-232-C-comp.	RS-232-C-comp.	RS-232-C-comp.
Line printer	Opt.; up to 900 lpm	Opt.; up to 900 lpm	Opt.; up to 900 lpm	Opt.; up to 900 lpm	Opt.; up to 900 lpm
Reel-to-reel tape drive	Opt. 4 units; 37.5 ips	—	—	Opt. 4 units; 37.5 ips	Opt. 4 units; 37.5 ips
Cassette/cartridge tape drive	—	Opt.; 20M bytes*	Opt.; 20M bytes*	—	—
CRT	Opt.; RS-232-C-comp.	Opt.; RS-232-C-comp.	Opt.; RS-232-C-comp.	Opt.; RS-232-C-comp.	Opt.; RS-232-C-comp.
Other	—	Video tape cassettes (100MB)	Video tape cassettes (100MB)	—	—
COMMUNICATIONS					
Maximum no. of lines	14	8	14	24	24
Synchronous	6 std.	Standard	Standard	6 std.	6 std.
Asynchronous	6 std.	Standard	Standard	6 std.	6 std.
Protocols supported	2780/3780	2780/3780	2780/3780	2780/3780	2780/3780
Network architecture supported	Via AlphaLINK	—	—	Via AlphaLINK	Via AlphaLINK
RJE terminals emulated	(Currently in devel.)	—	—	(Currently in devel.)	(Currently in devel.)
IBM 3270 emulation	(Currently in devel.)	—	—	(Currently in devel.)	(Currently in devel.)
SOFTWARE SUPPORT					
Cobol	Optional	No	No	Optional	Optional
RPG	No	No	No	No	No
Fortran	Optional	No	No	Optional	Optional
Basic	Yes (std.)	Yes	Yes	Yes (std.)	Yes (std.)
Assembler	Yes	No	No	Yes	Yes
Other programming languages	Pascal, Lisp	Pascal, Lisp	Pascal, Lisp	Pascal, Lisp	Pascal, Lisp
Multiprogramming	Yes (no. not restr.)	Yes	Yes	Yes (no. not restr.)	Yes (no. not restr.)
Max. no. of jobs run concurrently	Not restricted	Not restricted	Not restricted	Not restricted	Not restricted
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	General-purpose	General-purpose	General-purpose	General-purpose	General-purpose
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Random, seq., ISAM	Random, seq., ISAM	Random, seq., ISAM	Random; seq., ISAM	Random, seq., ISAM
Software separately priced	No	No	No	No	No
Technical help separately priced	No	No	No	No	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Maintenance plans available	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
PRICING & AVAILABILITY					
Purchase price of basic system, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Monthly rental of basic system, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Monthly maint. price of basic system, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Monthly maint. bundled with rental, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Purchase price of:					
additional memory module, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
additional workstations, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
additional printer, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Discounts available	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Date of first U.S. delivery	June 1978	1981	1981	June 1978	June 1978
Number installed to date	NA	NA	NA	NA	NA
COMMENTS	Includes the Alpha Micro Operating System (AMOS); supports any RS-232-C-compatible peripherals; over 1500 application programs available	See AM-1011 Comments; *streaming tape drive	See AM-1011 Comments; *streaming tape drive	Includes the Alpha Micro Operating System (AMOS); supports any RS-232-C-compatible peripherals; over 150 application programs available	Includes the Alpha Micro Operating System (AMOS); supports any RS-232-C-compatible peripherals; over 150 application programs available

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MANUFACTURER AND MODEL	Alpha Micro AM-1041	Alpha Micro AM-1050	Alpha Micro AM-1051	Alpha Micro AM-1061	AM Jacquard J-100 Series 1
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	Western Digital-16	Western Digital-16	Western Digital-16	Western Digital-16	IMP-16
Add time, microseconds	—	7	3.7	—	8.0
No. of I/O ports on basic sys. and max.	2, 14	6 min. (24 max.)	2 min. (24 max.)	2, 26	2, 62
INTERNAL STORAGE					
Type	MOS, RAM	MOS, RAM	MOS, RAM	MOS, RAM	MOS
Capacity of basic system, bytes	128K	64K	64K	128K	128K
Maximum capacity, bytes	512K	1920K	2048K	1024K	128K
Increment size, bytes	128K	64K and 128K	64K and 128K	128K	NA
Cycle/access time, microseconds	—	0.5/0.5	0.3/0.3	—	1.5/1.4
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; 1.2M bytes	Opt.; to 4.8M bytes	Opt.; to 4.8M bytes	Opt.; 1.2M bytes	Std.; 2 x 256K bytes
Maximum diskette storage	1.2M bytes	Opt.; to 4.8M bytes	Opt.; to 4.8M bytes	1.2M bytes	2 x 256K bytes
Cartridge disk drive	No	90MB; 360MB (opt.)	90MB; 360MB (opt.)	No	Opt.; 4 x 48M bytes
Pack disk drive	No	Opt.; 25-2400MB	Opt.; 25-2400MB	No	Opt.; 4 x 80M bytes
Fixed-head disk/drum	32MB (Winch.)	No	No	Std.; 60MB (Winch.)	No
Maximum disk storage	32M bytes	2400M bytes	2400M bytes	60M bytes	320M bytes
WORKSTATIONS					
Maximum number connectable	24	24	24	24	14
Recommended maximum number	—	—	—	—	7
Keyboard style	—	—	—	—	Typewriter
Workstation printer	—	—	—	—	Line, daisywheel, or matrix printer
INPUT/OUTPUT DEVICES					
Serial printer	RS-232-C-comp.	RS-232-C-comp.	RS-232-C-comp.	RS-232-C-comp.	Opt.; (16) 45-55 cps
Line printer	Opt.; up to 900 lpm	Opt.; up to 900 lpm	Opt.; up to 900 lpm	Opt.; up to 900 lpm	Opt.;150 cps-300 lpm
Reel-to-reel tape drive	—	Opt. 4 units; 37.5 ips	Opt. 4 units; 37.5 ips	—	Opt.; (10) 40 KBS
Cassette/cartridge tape drive	Opt.; 20M bytes*	—	—	Opt.; 20M bytes*	No/No
CRT	Opt.; RS-232-C-comp.	Opt.; RS-232-C-comp.	Opt.; RS-232-C-comp.	Opt.; RS-232-C-comp.	Std.; 1920 char.
Other	Video cassette recorder (100MB)	—	—	—	Phototypesetter, OCR reader
COMMUNICATIONS					
Maximum no. of lines	14	24 (plus)	24 (plus)	26	19
Synchronous	Standard	6 std.	6 std.	Standard	Opt.; to 4800 bps
Asynchronous	Standard	6 std.	6 std.	Standard	Opt.; to 9600 bps
Protocols supported	2780/3780	2780/3780	2780/3780	2780/3780	See Comments
Network architecture supported	—	Via AlphaLINK	Via AlphaLINK	—	Yes, PAKNET
RJE terminals emulated	—	(Currently in devel.)	(Currently in devel.)	—	2780/3780, Univac
IBM 3270 emulation	—	(Currently in devel.)	(Currently in devel.)	—	Yes
SOFTWARE SUPPORT					
Cobol	No	Optional	Optional	No	No
RPG	No	No	No	No	No
Fortran	No	Optional	Optional	No	No
Basic	Yes	Yes (std.)	Yes (std.)	Yes	Yes
Assembler	No	Yes	Yes	No	Yes
Other programming languages	Pascal, Lisp	Pascal, Lisp	Pascal, Lisp	Pascal, Lisp	Data-Rite, Report-Rite
Multiprogramming	Yes	Yes (no. not restr.)	Yes (no. not restr.)	Yes	Yes
Max. no. of jobs run concurrently	Not restricted	Not restricted	Not restricted	Not restricted	20
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	General-purpose	General-purpose	General-purpose	General-purpose	Dist., med., law, WP
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Random, seq., ISAM	Random, seq., ISAM	Random, seq., ISAM	Random, seq., ISAM	Seq., random
Software separately priced	No	No	No	No	Yes
Technical help separately priced	No	No	No	No	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Contact vendor	Contact vendor	Contact vendor	Contact vendor	1-year
Maintenance plans available	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	14,000
Monthly rental of basic system, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	—
Monthly maint. price of basic system, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	172
Monthly maint. bundled with rental, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	—
Purchase price of:					
additional memory module, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	—
additional workstations, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	2,900
additional printer, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	3,850
Discounts available	Contact vendor	Contact vendor	Contact vendor	Contact vendor	GSA
Date of first U.S. delivery	1981	June 1979	June 1979	1981	August 1975
Number installed to date	NA	NA	NA	NA	1000
COMMENTS	See AM-1031 Comments; *streaming tape drive	Includes the Alpha Micro Operating System (AMOS); supports any RS-232-C-compatible peripherals; over 150 application programs available	Includes the Alpha Micro Operating System (AMOS); supports RS-232-C-compatible peripherals; over 150 application programs available	See AM-1051 Comments; *streaming tape drive	Optional 150-cps printer available; protocols supported include 2780/3780, 3270, TTY; word processing software; phototypesetter int.; electronic mail; upgradeable to Series 2 or 3

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MANUFACTURER AND MODEL	AM Jacquard J-100 Series 2	AM Jacquard J-100 Series 3	AM Jacquard J-500	Applied Digital Communications 102	Applied Digital Communications 103
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	IMP-16	Bit slice	Bit-slice	DG MP-100	Perkin-Elmer 3220
Add time, microseconds	8.0	1.2	3.96	2.4 (1 word)	1.2
No. of I/O ports on basic sys. and max.	2, 62	2, 62	3	9, 18	1, 256
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS, RAM	MOS, RAM
Capacity of basic system, bytes	128K	128K	128K	64K	64K
Maximum capacity, bytes	512K	512K	128K	64K	1M
Increment size, bytes	128K	128K	—	—	—
Cycle/access time, microseconds	1.5/1.4	0.7/0.45	0.5/0.66	0.96/NA	0.6/0.4
MASS STORAGE					
Floppy disk (diskette) drive	Std.; 2 x 256K bytes	Std.; 2 x 256K bytes	Std.; 2 x 256K bytes	Optional	Optional
Maximum diskette storage	2 x 256K bytes	2 x 256K bytes	2 x 512K bytes	—	—
Cartridge disk drive	Opt.; 4 x 48M bytes	Opt.; 4 x 48M bytes	Opt.; 2 x 24M bytes	Std.; 10M bytes	No
Pack disk drive	Opt.; 4 x 80M bytes	Opt.; 4 x 80M bytes	No	No	Yes
Fixed-head disk/drum	No	No	No	No	No
Maximum disk storage	320M bytes	320M bytes	48M bytes	—	—
WORKSTATIONS					
Maximum number connectable	14	14	1	—	—
Recommended maximum number	14	14	1	—	—
Keyboard style	Typewriter	Typewriter	Typewriter	Type., num. key	Type., num. key.
Workstation printer	Line, daisywheel, or matrix printer	Line, daisywheel, or matrix printer	Line, daisywheel, or matrix printer	—	—
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; (16) 45-55 cps	Opt.; (16) 45-55 cps	Opt.; (2) 45-55 cps	Std.; 120 cps	Std.; 120 cps
Line printer	Opt.;150 cps-300 lpm	Opt.;150 cps-300 lpm	Opt.;150 cps-300 lpm	Optional	Opt.; 600 lpm
Reel-to-reel tape drive	Opt.; (10) 40 KBS	Opt.; (10) 40 KBS	No	No	Optional
Cassette/cartridge tape drive	No/No	No/No	No/No	No	Optional
CRT	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.
Other	Phototypesetter, OCR reader	Phototypesetter, OCR reader	Phototypesetter, OCR reader	Paper tape & card	Paper tape & card
COMMUNICATIONS					
Maximum no. of lines	19	19	2	—	256
Synchronous	Opt.; to 4800 bps	Opt.; to 9600 bps	Opt.; to 4800 bps	No	Optional
Asynchronous	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps	Yes	Optional
Protocols supported	See Comments	See Comments	See Comments	Bisync	Bisync
Network architecture supported	Yes, PAKNET	Yes, PAKNET	Yes, PAKNET	—	None
RJE terminals emulated	2780/3780, Univac	2780/3780, Univac	2780/3780, Univac	—	None
IBM 3270 emulation	Yes	Yes	Yes	No	No
SOFTWARE SUPPORT					
Cobol	No	No	No	Yes	Yes
RPG	No	No	No	No	Yes
Fortran	No	No	No	Yes	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	Data-Rite, Report-Rite	Data-Rite, Report-Rite	Data-Rite, Report-Rite	No	No
Multiprogramming	Yes	Yes	Yes	Yes	Yes
Max. no. of jobs run concurrently	20	20	20	1	—
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	Partially
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Dist., med., law, WP	Dist., med., law, WP	Dist., med., law, WP	Distrib., mfg.	General-purpose
Data base management system	Yes	Yes	Yes	No	No
File access methods supported	Seq., random	Seq., random	Seq., random	Rand., seq., ISAM	Seq., random
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	No	No	No	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	1-year	1-year	1-year	Contact vendor	Contact vendor
Maintenance plans available	Yes	Yes	Yes	—	—
PRICING & AVAILABILITY					
Purchase price of basic system, $	16,500	20,000	11,900	18,000 up	75,000 up
Monthly rental of basic system, $	—	—	571	—	—
Monthly maint. price of basic system, $	172	172	95	—	—
Monthly maint. bundled with rental, $	—	—	Yes	—	—
Purchase price of:					
additional memory module, $	2,500 (128KB)	2,500 (128KB)	—	—	—
additional workstations, $	2,900	2,900	NA	—	—
additional printer, $	3,850	3,850	3,850	—	—
Discounts available	GSA	GSA	GSA	—	—
Date of first U.S. delivery	June 1981	November 1981	May 1980	1978	1978
Number installed to date	NA	NA	1200	NA	NA
COMMENTS	See J-100 Series 1 Comments, up-gradeable to Series 3	See J-100 Series 1 Comments	See J-100 Series 1 Comments	For pricing and availability, contact vendor; price includes accounting software	Includes accounting system, job cost control, invoicing, personnel reports, solid audit trail, multitasking, civil engineering, CAD application, and report gen. packages

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MANUFACTURER AND MODEL	Applied Digital Communications 104	Applied Digital Communications 202	Applied Digital Communications 300	Applied Digital Communications 303	Applied Digital Communications 400
WORD LENGTH, BITS	16	16	16	16	12
CPU					
Model	DG MP-100	DG Nova 4	DG Nova 4	DG Nova 4	DEC PDP-8
Add time, microseconds	2.4 (1 word)	1.2	1.2	1.2	1
No. of I/O ports on basic sys. and max.	9, 18	12 (std.)	12 (std.)	12 (std.)	UNIBUS
INTERNAL STORAGE					
Type	MOS, RAM	MOS, RAM	MOS, RAM	MOS, RAM	MOS, Core
Capacity of basic system, bytes	64K	64K	64K	64K	8K
Maximum capacity, bytes	64K	256K	256K	256K	32K
Increment size, bytes	—	32K	32K	32K	4K
Cycle/access time, microseconds	0.960	0.4/NA	0.4/NA	0.4/NA	1/1
MASS STORAGE					
Floppy disk (diskette) drive	Optional	Optional	Optional	Optional	Opt.; 1M bytes
Maximum diskette storage	—	—	—	—	4M bytes
Cartridge disk drive	Std.; 10M bytes	Std.; 10M bytes	Std.; 10M bytes	Std.; 10M bytes	Optional
Pack disk drive	No	No	Std.; 12.5M bytes	Std.; 12.5M bytes	Optional
Fixed-head disk/drum	No	No	—	—	Optional
Maximum disk storage	—	—	—	—	—
WORKSTATIONS					
Maximum number connectable	—	—	—	—	—
Recommended maximum number	—	—	—	—	—
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	—	—	—	—	—
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 120 cps	Std.; 120 cps	Std.; 120 cps	Std.; 120 cps	Std.; 120 cps
Line printer	Optional	Opt.; to 600 lpm	Opt.; to 600 lpm	Opt.; to 160 lpm	Opt.; to 600 lpm
Reel-to-reel tape drive	No	Optional	Optional	Optional	Opt.; DECtape
Cassette/cartridge tape drive	No	No	No	No	No
CRT	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	Optional
Other	Paper tape & card	Paper tape & card	—	—	Paper tape & card
COMMUNICATIONS					
Maximum no. of lines	—	64	64	64	NA
Synchronous	No	No	No	No	No
Asynchronous	Yes	Yes	Yes	Yes	No
Protocols supported	Bisync	None	None	None	None
Network architecture supported	—	None	None	None	None
RJE terminals emulated	—	None	None	None	None
IBM 3270 emulation	No	No	No	No	No
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	No
RPG	No	No	No	No	No
Fortran	Yes	Yes	Yes	Yes	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	No	Algol	Algol	Algol	None
Multiprogramming	Yes	Yes	Yes	Yes	No
Max. no. of jobs run concurrently	1	—	—	—	—
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Distrib., mfg.	Distrib., mfg.	Manufacturing	Civil engineering	Manufacturing
Data base management system	No	No	No	No	No
File access methods supported	Seq., random, ISAM	Seq., rand., ISAM	Seq., rand., ISAM	Seq., rand., ISAM	Seq., rand.
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Maintenance plans available	—	—	—	—	—
PRICING & AVAILABILITY					
Purchase price of basic system, $	18,000 up	25,000 up	20,000 up	20,000 up	13,000 up
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	—	—	—	—	—
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	—	—	—	—	—
additional workstations, $	—	—	—	—	—
additional printer, $	—	—	—	—	—
Discounts available	—	—	—	—	—
Date of first U.S. delivery	1978	1978	1981	1981	NA
Number installed to date	NA	NA	NA	NA	40+
COMMENTS	Medical 3-party billing, appointment scheduling, Accounts Rec. & Pay., General Ledger, Payroll, word processing, medical forms, billing history	Same as Model 102 but faster & greater capacity; price includes accounting software	Order entry, invoicing, inventory control, job cost control, shop order scheduling, personnel reports, word processing, and report generator applications	Includes accounting, job cost control, invoicing, personnel reports, solid audit trail, civil engineering applications, report generator	Computer-aided design for Numeric Control manufacturing operations, and NC tape verification; piece part drawings can be retrofit into existing computer

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MANUFACTURER AND MODEL	Applied Digital Communications 401	Applied Digital Data Systems (ADDS) MULTIVISION	Applied Digital Data Systems (ADDS) MENTOR 4000	Applied Systems Corp. ASC/80	Archives Business Computers Model 1
WORD LENGTH, BITS	16	8	16	8, 16	8
CPU					
Model	DEC PDP-11/03-23	Intel 8085A-2	Zilog Z8000	See Comments	Zilog Z80A
Add time, microseconds	—	—	1 (16 bits)	1.0	—
No. of I/O ports on basic sys. and max.	UNIBUS	3, 8	1 parallel, 8-32 serial	2, 32	2, 6
INTERNAL STORAGE					
Type	Core	MOS	MOS	MOS, RAM, & ROM	MOS
Capacity of basic system, bytes	64K	64K	128K	8K/128K	64K
Maximum capacity, bytes	256K	256K	512K	128K	64K
Increment size, bytes	8K	64K	128K	4K/16K	—
Cycle/access time, microseconds	0.75/0.275	150 nano.	0,2	0.5	—
MASS STORAGE					
Floppy disk (diskette) drive	Optional	Standard (700KB)	—	Opt.; 0.2 to 2M bytes	Std. (2)
Maximum diskette storage	1.0M bytes	700K bytes	—	6M bytes	772K bytes
Cartridge disk drive	Std.; 5M bytes	—	—	Optional	No
Pack disk drive	—	—	—	Optional	No
Fixed-head disk/drum	—	10M bytes	30-60MB Winch.	Opt.; 10-100M bytes	No
Maximum disk storage	—	10M bytes	120M bytes	—	772K bytes
WORKSTATIONS					
Maximum number connectable	1	4	32	8/16	1
Recommended maximum number	—	4	32	8	1
Keyboard style	Type., num. key.	Typewriter, num. key	TTY, Typewriter	ASCII or BCD	Type., num. key.
Workstation printer	—	—		Optional	1
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 120 cps	Optional	Opt.; 120 cps-600 lpm	Opt.; 30-180 cps	Opt.; 150 cps
Line printer	Opt.; to 600 lpm	Optional	Opt.; 150-300 lpm	Opt.; to 900 lpm	No
Reel-to-reel tape drive	Optional	No	Std.; 1600 bpi	Opt.; to 19.2K bps	No
Cassette/cartridge tape drive	Cass.; optional	No	No	Optional	No
CRT	Std.; 1920 char.	24 x 80 (1920 char.)	24 x 80 (1920 char.)	Std.; 40 or 80 col.	Std.; 25 x 80 char.
Other	Paper tape	No	No	—	—
COMMUNICATIONS					
Maximum no. of lines	256	Optional	32 async, 4 sync	32	NA
Synchronous	Optional	CP/M-compatible	Opt.; 19.2K bps	Opt.; to 50K bps	Opt.; 500K bps
Asynchronous	Optional	CP/M-compatible	Std.; (8) 19.2K bps	Opt.; to 9600 bps	Std.; 9600 bps
Protocols supported	Bisync	—	2780/3780	ASCII/Bisync	Opt.; SDLC, Bisync
Network architecture supported	—	—	—	Optional	None
RJE terminals emulated	—	—	2780/3780	Optional	Optional
IBM 3270 emulation	—	No	Yes	Optional	No
SOFTWARE SUPPORT					
Cobol	No	CP/M-compatible	No	Yes (optional)	Yes
RPG	No	No	No	Yes (optional)	No
Fortran	Yes	CP/M-compatible	No	Yes (optional)	Yes
Basic	Yes	Yes	Yes	Yes (optional)	Yes
Assembler	Yes	Yes	Yes	Yes (optional)	Yes
Other programming languages	None	—	Proc, Info Access Eng	Pascal (optional)	Yes
Multiprogramming	No	Yes, 4 partitions	Yes	Optional	No
Max. no. of jobs run concurrently	—	4	32	Varies	1
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	Partially	No	No	Partial	No
General accounting packages	Yes	No	Avail. via dealers	Optional	Yes
Industry application areas	—	Word processing	Dist., mfg.*	Business & commun.	General-purpose
Data base management system	TOTAL	Yes	Yes	Optional	Yes
File access methods supported	Seq., random, ISAM	Random, ISAM	Random, ISAM	Optional	—
Software separately priced	Yes	Yes	Yes	Partial	Yes
Technical help separately priced	Yes	Yes	Yes	Optional	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Contact vendor	No	3-, 5-yr. (via deal.)	3-, 4-, 5-year	Yes
Maintenance plans available	—	Via dealer	On-call	Optional	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	15,000 up	3,785	30,000-50,000	2,900+	5,500
Monthly rental of basic system, $	—	—	—	Contact vendor	—
Monthly maint. price of basic system, $	—	—	300-500	—	—
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	—	500	4,500 (128KB)	150 (8K bytes)	—
additional workstations, $	—	—	995	Contact vendor	—
additional printer, $	—	—	Contact dealer	Contact vendor	—
Discounts available	—	Yes	—	Quantity	OEM
Date of first U.S. delivery	1979	May 1980	March 1981	1979	December 1979
Number installed to date	5	NA	175	NA	NA
COMMENTS	Manufacturing and accounting software CAD systems for Numeric Control mfg. operations, NC tape verification, NC tape translation; piece part drawings with incremental plotter	Available through dealer network	Sold through authorized dealer network; *also used in medical billing, litigations support, and construction applications	Modular computer design for business and remote communications applications; multiprocessing systems featuring Zilog Z80 or Z8000, Intel 8085/8086, or Motorola's 68000	

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MANUFACTURER AND MODEL	Archives Business Computers Model II	Archives Business Computers Model III	Ardent Computer Products Ardent 10	Ardent Computer Products Ardent 20	Ardent Computer Products Ardent 40
WORD LENGTH, BITS	8	8	16	16	16
CPU					
Model	Zilog Z80A	Zilog Z80A	Ardent	Ardent	Ardent
Add time, microseconds	—	—			
No. of I/O ports on basic sys. and max.	2, 6	2, 6	2, 2	6	6
INTERNAL STORAGE					
Type	MOS	MOS	—	—	—
Capacity of basic system, bytes	64K	64K	64K	64K	64K
Maximum capacity, bytes	64K	64K	64K	256K	256K
Increment size, bytes	—	—	—	64K	64K
Cycle/access time, microseconds	—	—			
MASS STORAGE					
Floppy disk (diskette) drive	Std. (2)	Std. (2)	—	—	—
Maximum diskette storage	1.56M bytes	780K bytes			
Cartridge disk drive	No	No	10M bytes	10M bytes	—
Pack disk drive	No	No	10M bytes	10M bytes	32M to 96M bytes
Fixed-head disk/drum	No	Std.; (1) 4.8MB	—	—	—
Maximum disk storage	1.56M bytes	5.5M bytes	40M bytes	40M bytes	320M bytes
WORKSTATIONS					
Maximum number connectable	1	1	2	16	16
Recommended maximum number	1	1	2	—	—
Keyboard style	Type., num. key.	Type., num. key.	TTY	TTY	TTY
Workstation printer	1	1	1	1	1
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 150 cps	Opt.; 150 cps	60 cps	—	—
Line printer	No	No	300 lpm	Up to 600 lpm	Up to 600 lpm
Reel-to-reel tape drive	No	No	—	—	—
Cassette/cartridge tape drive	No	No	—	—	—
CRT	Std.; 25 x 80 char.	Std.; 25 x 80 char.	2000 char.	2000 char.	2000 char.
Other	—	—	—	—	—
COMMUNICATIONS					
Maximum no. of lines	NA	NA	—	16	16
Synchronous	Opt.; 500K bps	Opt.; 500K bps	—	—	—
Asynchronous	Std.; 9600 bps	Std.; 9600 bps	Standard	Standard	Standard
Protocols supported	Opt.; SDLC, Bisync	Opt.; SDLC, Bisync	—	—	—
Network architecture supported	None	None	—	—	—
RJE terminals emulated	Optional	Optional	—	—	—
IBM 3270 emulation	No	No	—	—	—
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	No	No	No	No	No
Fortran	Yes	Yes	Yes	Yes	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	No	No	No
Other programming languages	Yes	Yes	—	—	—
Multiprogramming	No	No	Yes	Yes	Yes
Max. no. of jobs run concurrently	1	1	3	3	3
Language complemented in firmware	No	No	—	—	—
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	General-purpose	General-purpose	General-purpose	General-purpose	General-purpose
Data base management system	Yes	Yes	No	No	No
File access methods supported	—	—	Yes	Yes	Yes
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	No	No	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Yes	Yes	No	No	No
Maintenance plans available	Yes	Yes	Yes	Yes	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	6,500	8,500	5,990	7,990	8,990
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	—	—	—	—	—
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	—	—	NA	1,500 (64KB)	1,500 (64KB)
additional workstations, $	—	—	Contact vendor	Contact vendor	Contact vendor
additional printer, $	—	—	Contact vendor	Contact vendor	Contact vendor
Discounts available	OEM	OEM	Quantity	Quantity	Quantity
Date of first U.S. delivery	May 1981	May 1981	December 1980	1981	1981
Number installed to date	NA	NA	—	—	—
COMMENTS			Field-upgradeable to an Ardent 20 and Ardent 40	Field-upgradeable to an Ardent 40	

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MANUFACTURER AND MODEL	BBN Computer Corp. C/60	BBN Computer Corp. C/70	Billings BC12-FD	Billings BC12-DF2M	BTI 5000
WORD LENGTH, BITS	8, 16, 32, 64	8, 16, 32, 64	8	8	16
CPU					
Model	—	—	Zilog Z80A	Zilog Z80A	BTI 5010
Add time, microseconds	—	—	3 (16 bits)	3 (16 bits)	20
No. of I/O ports on basic sys. and max.	16	16	3, 3	3, 3	7
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	256K	64K	64K	64K	64K
Maximum capacity, bytes	1M	2M	64K	64K	64K
Increment size, bytes	128KW or 896KW	128KW or 896KW	—	—	None
Cycle/access time, microseconds	0.135/0.405	0.135/0.405	1	1	0.65/0.3
MASS STORAGE					
Floppy disk (diskette) drive	No	No	Std.; (2) 315KB	Std.; (2) 1M	No
Maximum diskette storage	—	—	630K bytes	4M bytes	NA
Cartridge disk drive	—	—	—	—	No
Pack disk drive	—	Std.; (4) 300MB/dr.	—	—	27 to 63M bytes
Fixed-head disk/drum	Std.; 80MB Winch.	—	—	—	No
Maximum disk storage	80M bytes	1200M bytes	—	—	468M bytes
WORKSTATIONS					
Maximum number connectable	16	32	1	1	32
Recommended maximum number	8	—	1	1	24
Keyboard style	Typewriter	Typewriter	Type., num. key.	Type., num. key.	Any
Workstation printer	—	—	Optional	Optional	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 60 cps (1-64)	Std.; 60 cps (1-64)	Opt.; 100-180 cps	Opt.; 100-180 cps	Optional
Line printer	Opt.; 300-600 lpm	Opt.; 300-600 lpm	—	—	Opt.; 300-900 lpm
Reel-to-reel tape drive	Std., "streaming"	800/1600 bpi	—	—	Opt.; to 72KBS
Cassette/cartridge tape drive	Cassette; 562 cps	Cassette; 562 cps	—	—	No
CRT	Opt.; 1920 char.	Opt.; 1920 char.	—	—	Optional
Other	—	—	Opt. 55-cps letter-quality printer	Opt. 55-cps letter-quality printer	—
COMMUNICATIONS					
Maximum no. of lines	66	66	2	2	8 std.; 32 opt.
Synchronous	Optional	Optional	Std.; to 19,200 bps	Std.; to 19,200 bps	No
Asynchronous	Std.; to 19.2K bps	Std.; to 19.2K bps	Std.; to 19,200 bps	Std.; to 19,200 bps	9600 bps
Protocols supported	ARPANET	ARPANET	HDLC, SDLC, Bisync	HDLC, SDLC, Bisync	User-programmable
Network architecture supported	ARPANET	ARPANET	—	—	NA
RJE terminals emulated	None	None	—	—	NA
IBM 3270 emulation	No	No	No	No	No
SOFTWARE SUPPORT					
Cobol	No	No	Yes	Yes	No
RPG	No	No	No	No	No
Fortran	Yes	Yes	Yes	Yes	No
Basic	No	No	Yes	Yes	Yes
Assembler	No	No	Yes	Yes	No
Other programming languages	C	C	—	—	No
Multiprogramming	Yes	Yes	No	No	No
Max. no. of jobs run concurrently	—	—	1*	1*	32
Language complemented in firmware	Fully	Fully	No	No	Partially
Op. sys. implemented in firmware	Partially	Partially	No	No	Partially
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	General-purpose	General-purpose	General-purpose	General-purpose	Mfg., bus., school
Data base management system	—	—	Yes	Yes	Yes
File access methods supported	—	—	Seq., ISAM, direct	Seq., ISAM, direct	Rand., seq., ISAM
Software separately priced	—	—	Yes	Yes	Yes
Technical help separately priced	—	—	Yes	Yes	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	—	—	3-, 5-yr.	3-, 5-yr.	Purchase only
Maintenance plans available	—	—	On-site, on-call	On-site, on-call	24 hours
PRICING & AVAILABILITY					
Purchase price of basic system, $	Contact vendor	23,000 (64KB)	6,600	9,900	38,950
Monthly rental of basic system, $	—	—	423 (lease)	634 (lease)	Purchase only
Monthly maint. price of basic system, $	Contact vendor	300	66	99	225
Monthly maint. bundled with rental, $	—	—	423	634	NA
Purchase price of:					
additional memory module, $	—	—	NA	NA	—
additional workstations, $	—	—	6,600	9,900	900-2,400
additional printer, $	—	—	3,100; 1,595; 749	3,100; 1,595; 749	—
Discounts available	On request	On request	Dealer, OEM	Dealer, OEM	Quantity
Date of first U.S. delivery	NA	NA	1979	1979	March 1978
Number installed to date	NA	NA	2000	2000	3500
COMMENTS	UNIX-based system; user-micro-programmable; number of terminals active on system via N/W, limited only by memory available	See C/60 Comments	*Multiple event-driven tasks can be run concurrently in background environment	*Multiple event-driven tasks can be run concurrently in background environment	Up to 32 user terminals can run concurrently

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MANUFACTURER AND MODEL	BTI 5000/ES	Burroughs B 80	Burroughs B 91/92	Burroughs B 93	Burroughs B 801
WORD LENGTH, BITS	16	8	8	8	64
CPU					
Model	BTI 5010	B 80/20/30/40/50	B 91/92	B 93	B 800
Add time, microseconds	20	60	—	—	—
No. of I/O ports on basic sys. and max.	7	8, 11	6, 8/8, 11	8, 11	7
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	64K	64K	128K	256K	32K
Maximum capacity, bytes	64K	256K	512K	512K	80K
Increment size, bytes	None	16K, 64K	128K	128K	8K
Cycle/access time, microseconds	0.65/0.3	1.0/0.5	0.5/0.3	0.5	1.0/0.5
MASS STORAGE					
Floppy disk (diskette) drive	No	Opt.; 1M bytes	Opt.; 243K-3MB	Opt.; 243K-3MB	Opt.; 486K bytes
Maximum diskette storage	NA	6M bytes	10M bytes	10M bytes	36.8M bytes
Cartridge disk drive	No	Opt.; 27.6M bytes	Opt.; (3) 27.6MB	Opt.; (2) 18.4M bytes	Opt.; 36.8M bytes
Pack disk drive	10M bytes	No	No	No	No
Fixed-head disk/drum	No	Opt.; 37.6M bytes	Opt.; (2) 77.2MB	Opt.; (2) 77.2MB	No
Maximum disk storage	262M bytes	46.8M bytes	160.4M bytes	160.4M bytes	36.8M bytes
WORKSTATIONS					
Maximum number connectable	32	—	—	—	—
Recommended maximum number	24	—	—	—	—
Keyboard style	Any	Type., num. key	Type., num. key	Type., num. key	Type., num. key
Workstation printer	Optional	Optional	Optional	Optional	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Optional	Std.; 60-180 cps	Std.; 90-120 cps*	Std.; 230 cps	Std.; 120 cps
Line printer	Opt.; 300-900 lpm	Opt.; 160-350 lpm	Opt.; 160-600 lpm	Opt.; 160-600 lpm	Opt.; 85-400 lpm
Reel-to-reel tape drive	Opt.; to 72KBS	No	No	No	Opt.; 10KBS
Cassette/cartridge tape drive	No	Opt.; (4)/No	Opt.; (4)/No	Opt.; (4)/No	Opt.; 1KBS/No
CRT	Optional	Std.; 8 x 32 char.	Std.; 256-1920 char.	Optional	Optional
Other	—	—	—	—	—
COMMUNICATIONS					
Maximum no. of lines	4 std.; 32 opt.	4	2/4	4	4
Synchronous	No	Opt.; to 4800 bps	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; to 9600 bps
Asynchronous	9600 bps	Opt.; to 9600 bps	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; to 9600 bps
Protocols supported	User-programmable	Bisync, BDLC	2780/3780, BDLC	2780/3780, BDLC	Bisync, BDLC
Network architecture supported	NA	Async, Sync	—	—	NDL
RJE terminals emulated	NA	—	—	—	—
IBM 3270 emulation	No	—	Yes	Yes	—
SOFTWARE SUPPORT					
Cobol	No	Yes	Yes	Yes	Yes
RPG	No	Yes	Yes	Yes	Yes
Fortran	No	No	No	No	No
Basic	Yes	No	No	No	No
Assembler	No	No	No	No	No
Other programming languages	No	NDL/MPL II	NDL/MPL II	NDL/MPL II	AEL, MPL, NDL
Multiprogramming	No	Yes	Yes	Yes	Yes
Max. no. of jobs run concurrently	32	—	—	—	—
Language complemented in firmware	Partially	Fully	Fully	Fully	Fully
Op. sys. implemented in firmware	Partially	Fully	Fully	Fully	Fully
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Mfg., bus., school	Whosl., dist., med., fin.	General-purpose	General-purpose	All bus. acctg. applic.
Data base management system	Yes	No	No	No	No
File access methods supported	Rand., seq., ISAM	Rand., seq., ISAM	Rand., seq., ISAM	Rand., seq., ISAM	Rand., seq., ISAM
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	No	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Purchase only	1-, 3-, 5-year	1-, 3-, 5-year	1-, 3-, 5-year	1-, 3-, 5-year
Maintenance plans available	24 hours	On-site contract, on-call	On-site contract, on-call	On-site contract, on-call	On-site contract, on-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	29,950	12,990	7,950/14,000	10,108	35,045
Monthly rental of basic system, $	Purchase only	—	—	—	1,047 (1-yr. lease)
Monthly maint. price of basic system, $	225	—	—	—	198
Monthly maint. bundled with rental, $	NA	643	985/985	858	—
Purchase price of:					
additional memory module, $	—	2,550 (64K bytes)	1,500 (128K bytes)	1,500 (128K bytes)	—
additional workstations, $	900-2,400	—	—	—	—
additional printer, $	—	—	3,320 (230 cps)	3,320 (230 cps)	28,840 (750 lpm)
Discounts available	Quantity	—	—	—	Dollar volume
Date of first U.S. delivery	September 1979	April 1976	December 1979	June 1981	April 1977
Number installed to date	50	NA	NA	NA	NA
COMMENTS	Up to 32 user terminals can run concurrently		*230-cps printer is optionally available	A workstation-oriented system that does not require an integrated console because the operating system allows any workstation to perform the system's functions	

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MANUFACTURER AND MODEL	Burroughs B 810/B 820	Burroughs B 920	Burroughs B 1855	Burroughs B 1885	Burroughs B 1955
WORD LENGTH, BITS	64	64	24	24	24
CPU					
Model	B 800	B 900-2	B 1800	B 1800	B 1900
Add time, microseconds	—	—	—	—	—
No. of I/O ports on basic sys. and max.	7	—	4, 15	4, 15	4, 15
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	64K	640K	524,288	524,288	524,288
Maximum capacity, bytes	131K	1.5M	1,048,576	1,048,576	2,097,152
Increment size, bytes	8K	64K, 128K	262,144	262,144	262,144
Cycle/access time, microseconds	1.0/0.5	1.0/0.5	—	—	0.333 per byte
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; 2M bytes	Opt.; 1M or 6M bytes	Opt.; 243K bytes	Opt.; 243K bytes	Opt.; 243K bytes
Maximum diskette storage	368M bytes	10M bytes	972K bytes (4)	972K bytes (4)	972K bytes (4)
Cartridge disk drive	Opt.; 368M bytes	Opt.; (3) 9.2M bytes	Opt.; (4) 73.6MB	Opt.; (4) 73.6MB	No
Pack disk drive	Opt.; 521M bytes	Opt.; 390M bytes	65MB; 3.2BB (opt.)	65MB; 3.2BB (opt.)	65MB; 3.2BB (opt.)
Fixed-head disk/drum	No	231M bytes	Opt.; 23.6M bytes	Opt.; 23.6M bytes	No
Maximum disk storage	521.6M bytes	550M bytes	—	—	—
WORKSTATIONS					
Maximum number connectable	—	—	256	256	256
Recommended maximum number	—	—	—	—	—
Keyboard style	Type., num. key	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	Optional	Optional	Yes	Yes	Yes
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 120 cps	Opt.; 120 cps	Opt.; 230 cps	Opt.; 230 cps	Opt.; 230 cps
Line printer	Opt.; 85-750 lpm	Opt.; 250-600 lpm	650lpm;1500lpm(opt.)	650lpm;1500lpm(opt.)	650lpm;1500lpm(opt.)
Reel-to-reel tape drive	Opt.; 10KBS	Opt.; 40K bytes	Opt.; 40-120K BPS (8)	Opt.; 40-120K BPS (8)	Opt.; 40-120K BPS (8)
Cassette/cartridge tape drive	Opt.; 1KBS/No	Opt.; 1KBS/No	Cass.; 1K BPS	Cass.; 1K BPS	Cass.; 1K BPS
CRT	Opt.	Optional	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	—	—	Card reader	Card reader	Card reader
COMMUNICATIONS					
Maximum no. of lines	4	4	32	32	32
Synchronous	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; 50,000 bps	Opt.; 50,000 bps	Opt.; 50,000 bps
Asynchronous	Opt.; to 9600 bps	Opt.; to 1800 bps	Opt.; 19,200 bps	Opt.; 19,200 bps	Opt.; 19,200 bps
Protocols supported	Bisync, BDLC	BDLC, Bisync	2780/3780, 360-20	2780/3780, 360-20	2780/3780, 360-20
Network architecture supported	NDL	Async, Sync	BNA	BNA	BNA
RJE terminals emulated	—	—	2780/3780, 360-20	2780/3780, 360-20	2780/3780, 360-20
IBM 3270 emulation	—	—	No	No	Yes
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	Yes	Yes	Yes	Yes	Yes
Fortran	No	No	Yes	Yes	Yes
Basic	No	No	Yes	Yes	Yes
Assembler	No	No	No	No	No
Other programming languages	AEL, MPL, NDL	NDL, MPL II	MIL, SDL, UPL	MIL, SDL, UPL	MIL, SDL, UPL
Multiprogramming	Yes	Yes	Yes, dynamic mem.	Yes, dynamic mem.	Yes, dynamic mem.
Max. no. of jobs run concurrently	—	—	—	—	—
Language complemented in firmware	Fully	Fully	Yes	Yes	Yes
Op. sys. implemented in firmware	Fully	Fully	Yes	Yes	Yes
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	All bus. acctg. applic.	General-purpose	Ind. spec. soft.	Ind. spec. soft.	Ind. spec. soft.
Data base management system	No	No	Yes	Yes	Yes
File access methods supported	Rand., seq., ISAM	Random, seq., ISAM	Rand., seq., ISAM	Rand., seq., ISAM	Rand., seq., ISAM
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	1-, 3-, 5-year	1-, 3-, or 5-year	1-, 3-, 5-year	1-, 3-, 5-year	1-, 3-, 5-year
Maintenance plans available	On-site contract, on-call	On-site contract, on-call	Yes, 7 days-24 hrs.	Yes, 7 days-24 hrs.	Yes, 7 days-24 hrs.
PRICING & AVAILABILITY					
Purchase price of basic system, $	40,450	60,500	105,750	160,600	104,000
Monthly rental of basic system, $	1,210 (1-yr. lease)	1,956 (3 years)	—	—	—
Monthly maint. price of basic system, $	233	—	650	781	540
Monthly maint. bundled with rental, $	—	—	3,600	4,995	3,531
Purchase price of:					
additional memory module, $	—	1,500 (128KB)	7,000 (262KB)	7,000 (262KB)	5,750 (262KB)
additional workstations, $	—	—	2,700	2,700	2,700
additional printer, $	—	8,490 (250 lpm)	—	—	—
Discounts available	Dollar volume	—	Quantity	Quantity	Quantity
Date of first U.S. delivery	April 1977	October 1980	June 1978	June 1978	March 1980
Number installed to date	NA	NA	NA	NA	NA
COMMENTS					

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MANUFACTURER AND MODEL	Burroughs B 1985	CADO Systems CADO C.A.T. I (System 20/21) 21 Series	CADO Systems CADO C.A.T. II (System 20/21) 22 Series	CADO Systems Corporation System 20/22	CADO Systems Corporation System 20/24
WORD LENGTH, BITS	24	8	8	8	8
CPU					
Model	B 1900	Intel 8085A	Intel 8085A	Intel 8085A	Intel 8085A
Add time, microseconds	—				
No. of I/O ports on basic sys. and max.	4, 15	1	4	2	4
INTERNAL STORAGE					
Type	MOS	NMOS	NMOS	NMOS	NMOS
Capacity of basic system, bytes	524,288	32K	48K	32K	32K
Maximum capacity, bytes	2,097,152	32K	48K	32K	48K
Increment size, bytes	262,144				16K
Cycle/access time, microseconds	0.333 per byte	1.3	1.3	1.3	1.3
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; 243K bytes	Std.; (2) 1.2M bytes	Std.; (2) 1.2M bytes	Std.; (1) 1.2M bytes	Std.; (1) 2.4M bytes
Maximum diskette storage	972K bytes (4)	2.4M bytes	2.4M bytes	3.6M bytes	3.6M bytes
Cartridge disk drive	No	No	—	Opt.; to 76M bytes	Opt.; to 76M bytes
Pack disk drive	65MB; 3.2BB (opt.)	No		No	No
Fixed-head disk/drum	No	No	Opt.; 5M bytes	Opt.; to 104M bytes	Opt.; to 104M bytes
Maximum disk storage	—		10M bytes	104M bytes	104M bytes
WORKSTATIONS					
Maximum number connectable	256	2	4	2	4
Recommended maximum number	—	2	4	2	4
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	Yes	Standard	Standard	Standard	Standard
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 230 cps	Std.; 150 cps	Std.; 150 cps	Std., 150 cps	Std.; 150 cps
Line printer	650lpm;1500lpm(opt.)	No	Opt.; to 300 lpm	Opt.; to 300 lpm	Opt.; to 300 lpm
Reel-to-reel tape drive	Opt.; 40-120K BPS (8)	No	—	No	No
Cassette/cartridge tape drive	Cass.; 1K BPS	No/No	—	No/No	No/No
CRT	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	Card reader	—	—	—	—
COMMUNICATIONS					
Maximum no. of lines	32	—	1	—	1
Synchronous	Opt.; 50,000 bps	—	Opt.; to 9600 bps	—	Opt.; to 9600 bps
Asynchronous	Opt.; 19,200 bps	—	Opt.; to 9600 bps	—	Opt.; to 9600 bps
Protocols supported	2780/3780, 360-20	—	2770/2780/3780	—	2770/2780/3780
Network architecture supported	BNA	—	—	—	—
RJE terminals emulated	2780/3780, 360-20	—	2780/3780	—	2780/3780
IBM 3270 emulation	Yes	—	Yes	—	Yes
SOFTWARE SUPPORT					
Cobol	Yes	No	No	No	No
RPG	Yes	No	No	No	No
Fortran	Yes	No	No	No	No
Basic	Yes	CADOL II*	CADOL II*	CADOL II*	CADOL II*
Assembler	No	No	Yes	No	No
Other programming languages	MIL, SDL, UPL	CADOL II*	CADOL II*	CADOL II*	CADOL II*
Multiprogramming	Yes, dynamic mem.	No	No	No	No
Max. no. of jobs run concurrently	—	—	4	—	—
Language complemented in firmware	Yes	Partially	Partially	Partially	Partially
Op. sys. implemented in firmware	Yes	Partially	Partially	Partially	Partially
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Ind. spec. soft.	Acctg., WP, mes. pro.	Acctg., WP, mes. pro.	Acctg., WP, mes. pro.	Acctg., WP, mes. pro.
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Rand., seq., ISAM	Rand., seq., ISAM	Seq., rand., ISAM	Rand., seq., ISAM	Rand., seq., ISAM
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	—	—	—	—
LEASE/MAINTENANCE OPTIONS					
Lease plans available	1-, 3-, 5-year	Third-party	Third-party	Third-party	Third-party
Maintenance plans available	Yes, 7 days-24 hrs.	—	—	—	—
PRICING & AVAILABILITY					
Purchase price of basic system, $	148,960	9,990	14,990	14,465	21,830
Monthly rental of basic system, $	—				
Monthly maint. price of basic system, $	648	100	150	150	220
Monthly maint. bundled with rental, $	4,824	—	—	—	—
Purchase price of:					
additional memory module, $	5,750 (262KB)	—	—	—	Contact vendor
additional workstations, $	2,700	Contact vendor	2,470	Contact vendor	Contact vendor
additional printer, $	—	Contact vendor	2,170	Contact vendor	Contact vendor
Discounts available	Quantity	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Date of first U.S. delivery	March 1980	July 1980	July 1981	July 1980	July 1980
Number installed to date	NA	8000**	NA	8000**	8000**
COMMENTS		*CADOL II combines BASIC with a CADO-designed I/O and format control system; includes Just Ask II, a manage./inquiry sys.; **total product line sales	See CADO C.A.T. I Comments	*CADOL II combines BASIC with a CADO-designed I/O and format control system; includes Just Ask II, a manage./inquiry system; **total product line sales	*CADOL II combines BASIC with a CADO-designed I/O and format control system; includes Just Ask II, a manage./inquiry system; **total product line sales

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MANUFACTURER AND MODEL	CADO Systems Corporation System 20/28	Canon BX-3	Canon CX-1	Centurion Computer Corp. Centurion III	Centurion Computer Corp. Centurion 200
WORD LENGTH, BITS	8	8	8	8	8
CPU					
Model	Intel 8085A	Motorola 6809	Motorola 6809	Centurion CPU-5	Centurion CPU-5
Add time, microseconds	—	—	—	3.0 (16-bit)	3.0 (16-bit)
No. of I/O ports on basic sys. and max.	8	5	5	4, 16 (max.)	4, 16 (max.)
INTERNAL STORAGE					
Type	NMOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	32K	64K	64K	32K	32K
Maximum capacity, bytes	96K	128K	128K	64K	64K
Increment size, bytes	16K	32K	32K	32K	32K
Cycle/access time, microseconds	1.3	0.35	0.35	0.8/0.2	0.8/0.2
MASS STORAGE					
Floppy disk (diskette) drive	Std.; (1) 2.4M bytes	Std.; 640K bytes	Std.; 640K bytes	Opt.; 1.2M bytes	No
Maximum diskette storage	3.6M bytes	2.64M bytes	2.64M bytes	3.6M bytes	—
Cartridge disk drive	Opt.; to 76M bytes	—	—	Std.; 10.4M	Std.; 10.4M bytes
Pack disk drive	No	—	—	No	No
Fixed-head disk/drum	Opt.; to 104M bytes	—	—	No	No
Maximum disk storage	104M bytes	—	—	83.2M bytes	41.6M bytes
WORKSTATIONS					
Maximum number connectable	8	1	1	16	12
Recommended maximum number	8	1	1	4	4
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Data entry, num. key.	Data entry, num. key.
Workstation printer	Standard	Optional	Optional	Standard	Standard
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 150 cps	Opt.; 80-120 cps	Opt.; 80-120 cps	Opt.; 45-150 cps	Opt.; 45-150 cps
Line printer	Opt.; to 300 lpm	Optional	Optional	Opt.; 120-600 lpm	Opt.; 120-600 lpm
Reel-to-reel tape drive	No	—	—	No	No
Cassette/cartridge tape drive	No/No	—	—	No	No
CRT	Std.; 24 x 80 char.	Opt.; 1920 char.	Std.; 1920 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	—	1-line alphanumeric display	—	No	No
COMMUNICATIONS					
Maximum no. of lines	2	3	3	3	3
Synchronous	Opt.; to 9600 bps	—	—	No	No
Asynchronous	Opt.; to 9600 bps	Opt.; 9600 bps	Opt.; 9600 bps	Std.; 1200 bps	Std.; 1200 bps
Protocols supported	2770/2780/3780	—	—	None	None
Network architecture supported	—	—	—	None	None
RJE terminals emulated	2780/3780	—	—	None	None
IBM 3270 emulation	Yes	—	—	No	No
SOFTWARE SUPPORT					
Cobol	No	No	Yes	No	No
RPG	No	No	No	No	No
Fortran	No	No	No	No	No
Basic	CADOL II*	Yes	Yes	No	No
Assembler	No	Yes	Yes	Yes	Yes
Other programming languages	CADOL II*	—	—	CPL, ADART, JCL	CPL, ADART, JCL
Multiprogramming	Yes	—	—	Yes (1-16 part.)	Yes (1-16 part.)
Max. no. of jobs run concurrently	8	1	1	16	16
Language complemented in firmware	Partially	No	No	No	No
Op. sys. implemented in firmware	Partially	Yes	Yes	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Acctg., WP, mes. pro.	Comm./bus.	Comm./bus.	General-purpose	General-purpose
Data base management system	Yes	Optional	Optional	No	No
File access methods supported	Rand., seq., ISAM	Seq., random	Seq., random	Rand., seq., index	Rand., seq., index
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	—	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Third-party	Contact vendor	Contact vendor	Third-party	Third-party
Maintenance plans available	—	Contact vendor	Contact vendor	Contract or per call	Contract or per call
PRICING & AVAILABILITY					
Purchase price of basic system, $	27,960	5,600	4,995	30,700	27,668
Monthly rental of basic system, $	—	Contact vendor	Contact vendor	—	—
Monthly maint. price of basic system, $	275	Contact vendor	Contact vendor	307	307
Monthly maint. bundled with rental, $	—	Contact vendor	Contact vendor	—	—
Purchase price of:					
additional memory module, $	Contact vendor	400	400	2,400 (32KB)	2,400 (32KB)
additional workstations, $	Contact vendor	—	—	1,992	1,992
additional printer, $	Contact vendor	1,500	1,500	Varies	Varies
Discounts available	Contact vendor	Quantity, GSA	Quantity	—	—
Date of first U.S. delivery	July 1980	April 1981	April 1981	1975	Second qtr. 1979
Number installed to date	8000**	NA	200	1100	150
COMMENTS	*CADOL II combines BASIC with a CADO-designed I/O and format control system; includes Just Ask II, an English-like manage./inquiry system; **total product line sales	Desktop computer with built-in dot-matrix printer	Desktop computer with small busi-ness accounting applications	Price includes print-er; English-oriented JCL; large selection of applications	Price includes printer; English-oriented JCL; large selection of applications

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MANUFACTURER AND MODEL	Centurion Computer Corp. Centurion Series 6000	Centurion Computer Corp. MicroPlus	Century Computer Century 300	Century Computer Century 400	Century Computer Century 700
WORD LENGTH, BITS	8	16	8, 16	8, 16	8, 16
CPU					
Model	Centurion CPU-6	Centurion CPU-5	Century 200	Century 400	Century 400
Add time, microseconds	1.6 (16-bit)	3.0 (16-bit)	1.4 (16 bits)	1.4 (16 bits)	1.4 (16 bits)
No. of I/O ports on basic sys. and max.	4, 16 (max.)	4, 4 (max.)	2, 256	2, 256	2, 256
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	64K	64K	32K	64K	96K
Maximum capacity, bytes	256K	64K	64K	256K	512K
Increment size, bytes	32K, 64K, 128K	—	32K, 64K	32K, 64K	32K, 64K
Cycle/access time, microseconds	0.8/0.2	0.8/0.2	0.4/0.2	0.4/0.2	0.4/0.2
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; 1.2M bytes	Std.; 1.2M bytes	No	No	No
Maximum diskette storage	3.6M bytes	4.8M bytes	—	—	—
Cartridge disk drive	Std.; 10.4M bytes	Std.; 8M-24M bytes	10M bytes	10M bytes	10M bytes
Pack disk drive	No	No	80M bytes	80M bytes	80M bytes
Fixed-head disk/drum	No	No	No	No	No
Maximum disk storage	635M bytes	24M bytes	150M bytes	420M bytes	600M bytes
WORKSTATIONS					
Maximum number connectable	40	2	6	15	20
Recommended maximum number	32	2	4	12	20
Keyboard style	Data entry, num. key.	Data entry, num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	Standard	Standard	Opt.; 4	Opt.; 8	Opt.; 20
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 45-150 cps	Opt.; 45-150 cps	No	Opt.; 165 cps	No
Line printer	Opt.; 120-600 lpm	Opt.; 120-200 lpm	Std.; 300 lpm	Opt.; 300, 600 lpm	Opt.; 300 lpm
Reel-to-reel tape drive	No	No	Opt.; 36KBS	Opt.; 36KBS	Opt.; 36KBS
Cassette/cartridge tape drive	No	No	Optional	Optional	Optional
CRT	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	No	No	No	No	No
COMMUNICATIONS					
Maximum no. of lines	32	1	4	8	20
Synchronous	No	No	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps
Asynchronous	Std.; 1200 bps	Std.; 1200 bps	19,200 bps	19,200 bps	19,200 bps
Protocols supported	None	None	—	—	—
Network architecture supported	None	None	No	No	No
RJE terminals emulated	None	None	IBM 3780	IBM 3780	IBM 3780
IBM 3270 emulation	No	No	Yes, optional	Yes, optional	Yes, optional
SOFTWARE SUPPORT					
Cobol	No	No	No	No	No
RPG	No	No	No	No	No
Fortran	No	No	No	No	No
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	CPL, ADART, JCL	CPL, ADART, JCL	CPL, Pascal	CPL, Pascal	CPL, Pascal
Multiprogramming	Yes (1-64 part.)	Yes (3 part.)	Yes, 4 partitions	Yes, 8 partitions	Yes; 20 partitions
Max. no. of jobs run concurrently	64	4	4	8	20
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	General-purpose	General-purpose	Finance, gen. bus.	—	—
Data base management system	No	No	Yes	Yes	No
File access methods supported	Rand., seq., index	Rand., seq., index	Rand., seq., index	Rand., seq., index	Rand., seq., index
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Third-party	Third-party	Contact vendor	Contact vendor	Contact vendor
Maintenance plans available	Contract or per call	Contract or per call	On-site, on-call, factory, third-party	On-site, on-call, factory, third-party	On-site, on-call, factory, third-party
PRICING & AVAILABILITY					
Purchase price of basic system, $	33,123-37,878	9,863	Contact vendor	Contact vendor	Contact vendor
Monthly rental of basic system, $	—	—	Purchase only	Purchase only	Purchase/lease
Monthly maint. price of basic system, $	NA	99	—	—	—
Monthly maint. bundled with rental, $	—	—	Yes	Yes	Yes
Purchase price of:					
additional memory module, $	2,400 (32KB)	2,400 (32KB)	—	—	—
additional workstations, $	1,992	1,992	—	—	—
additional printer, $	Varies	Varies	—	—	—
Discounts available	—	To distributors only	OEM	OEM	OEM
Date of first U.S. delivery	Fourth qtr. 1979	January 1982	June 1975	June 1975	June 1975
Number installed to date	250	NA	NA	NA	NA
COMMENTS	Price includes printer; English-oriented JCL; large selection of applications	English-oriented JCL; application software available for general business, wholesalers, accountants, etc.			

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MANUFACTURER AND MODEL	Century Computer Century 900	Century Computer Century X-1000	Compal 8200	Compal 8200 Plus	Complete Computer Systems #4001
WORD LENGTH, BITS	8, 16	8, 16, 24	8	8	16 + 1
CPU					
Model	Century 400	X-1000	Zilog Z80	Zilog Z80	DG Nova 4S
Add time, microseconds	1.4 (16 bits)	1.6 (24 bits)	2.4	2.4	0.2
No. of I/O ports on basic sys. and max.	2, 256	256	3, 4	3, 4	6, 11
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	16K	64K	56K	56K	64K
Maximum capacity, bytes	1M	1M	112K	112K	64K
Increment size, bytes	32K, 64K	64K	8K	8K	—
Cycle/access time, microseconds	0.4/0.2	1.1	1.6/0.4	1.6/0.4	0.4/0.2
MASS STORAGE					
Floppy disk (diskette) drive	No	—	Std.; 630K bytes	Std.; 630K bytes	Opt.; 1.2M bytes
Maximum diskette storage	—	—	2.4M bytes	1.2M bytes	4.8M bytes
Cartridge disk drive	10M bytes	—	No	No	Optional
Pack disk drive	80M bytes	—	No	No	Std.; 10M bytes
Fixed-head disk/drum	No	—	Opt.; 30M bytes	Std.; 5M bytes	No
Maximum disk storage	900M bytes	—	—	10M bytes	768M bytes
WORKSTATIONS					
Maximum number connectable	32	20	1	1	5
Recommended maximum number	32	15	1	1	3
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	Opt.; 32	Opt.; 20	1, 1, 2	1, 1, 2	Optional (5)
INPUT/OUTPUT DEVICES					
Serial printer	No	—	Std.; 55-150 cps	Std.; 55-150 cps	Std.; 600 cps
Line printer	Opt.; 600 lpm	Opt. 300 lpm	Optional	Optional	Opt.; 300 lpm
Reel-to-reel tape drive	Opt.; 160KBS	800/1600 BPI, 45 ips	No	No	Opt.; 60,000 cps
Cassette/cartridge tape drive	Optional	Optional, 30 ips	Optional	Optional	No
CRT	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; (2) 1920 char.
Other	No	—	—	—	Opt.; WP printer
COMMUNICATIONS					
Maximum no. of lines	32	4	3	3	8
Synchronous	Opt.; to 9600 bps	—	Opt.; 1200/9600 bps	Opt.; 1200/9600 bps	Opt.; to 9600 bps
Asynchronous	19,200 bps	9600 bps	Std.; 300 bps	Std.; 300 bps	Opt.; to 9600 bps
Protocols supported	—	3780	Async, Bisync	Async, Bisync	2780/3780, SDLC
Network architecture supported	No	—	—	—	360/370
RJE terminals emulated	IBM 3780	—	IBM 2780/3780	IBM 2780/3780	Yes
IBM 3270 emulation	Yes, optional	Yes, optional	Yes	Yes	Yes
SOFTWARE SUPPORT					
Cobol	No	No	Yes (opt.)	Yes (opt.)	Yes
RPG	No	No	No	No	Yes
Fortran	No	Yes	Yes (opt.)	Yes (opt.)	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	CPL, Pascal	Pascal	Pascal	Pascal	—
Multiprogramming	Yes, 32 partitions	Yes, 15 partitions	No	No	Yes, 2 partitions
Max. no. of jobs run concurrently	32	8	One program	One program	4
Language complemented in firmware	No	Yes	No	No	Partially
Op. sys. implemented in firmware	No	Yes	Partially	Partially	Partially
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	—	Yes	Dist., mfg., retail, law	Dist., mfg., retail, law	Foundations, Assoc.
Data base management system	No	Yes	Yes	Yes	Yes, CREATE
File access methods supported	Rand., seq., index	ISAM	All types	All types	Rand., seq., ISAM
Software separately priced	Yes	Yes	No	No	Yes
Technical help separately priced	Yes	Yes	No	No	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Contact vendor	3-, 5-, 6-year	1 to 5 years	1 to 5 years	3-, 5-, 7-yr.
Maintenance plans available	On-site, on-call, factory, third-party	Yes	On-site	On-site	On-site
PRICING & AVAILABILITY					
Purchase price of basic system, $	Contact vendor	45,000-85,000	12,500	16,000	31,380
Monthly rental of basic system, $	Purchase/lease	400-1,000	No	No	720
Monthly maint. price of basic system, $	—	350-750	60	60	298
Monthly maint. bundled with rental, $	Yes	—	No	No	—
Purchase price of:					
additional memory module, $	—	—	300 (8K bytes)	300 (8K bytes)	—
additional workstations, $	—	—	8,995	12,500	1,550-1,950
additional printer, $	—	—	3,500 (55 cps)	3,500 (55 cps)	7,200 (100-600 cps)
Discounts available	OEM	OEM	OEM	OEM	Turnkey & govt.
Date of first U.S. delivery	June 1975	August 1980	November 1979	November 1981	January 1980
Number installed to date	NA	18	350	NA	NA
COMMENTS				Hard-disk version of 8200	Membership organizations, Corporate Foundations, mail order, real estate sales, shared logic with WP

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MANUFACTURER AND MODEL	Complete Computer Systems #4016	Complete Computer Systems #4026	Complete Computer Systems #4032	Compucorp 600 Series	Computer Automation NAKED MINI 4 (NM 4/04)
WORD LENGTH, BITS	16 + 1	16 + 1	16 + 1	8	16
CPU					
Model	DG Nova 4X	DG Nova 4X	DG Nova 4X	Zilog Z80	SCOUT NM 4/04
Add time, microseconds	0.2	0.2	0.2	2	4.2 (16 bits)
No. of I/O ports on basic sys. and max.	10, 42	10, 42	18, 42	3, 10	—
INTERNAL STORAGE					
Type	MOS MAPPED	MOS MAPPED	MOS MAPPED	MOS	MOS
Capacity of basic system, bytes	256K	256K	256K	64K	32K
Maximum capacity, bytes	1000K	1000K	1000K	320K	128K
Increment size, bytes	256K	256K	256K	64K	16K
Cycle/access time, microseconds	—		—	2	1
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; 1.2M bytes	Opt.; 1.2M bytes	Opt.; 1.2M bytes	Std.; (3) 2.4M bytes	Opt.; (2) 500K bytes
Maximum diskette storage	4.8M bytes	4.8M bytes	4.8M bytes	2.4M bytes	4M bytes
Cartridge disk drive	Optional	Optional	Optional	Opt.; 10M bytes	—
Pack disk drive	Std.; 40M bytes	Std.; 96M bytes	Std.; 96M bytes	No	—
Fixed-head disk/drum	No	No	No	No	—
Maximum disk storage	768M bytes	768M bytes	768M bytes	40M bytes	—
WORKSTATIONS					
Maximum number connectable	33	33	33	8	16
Recommended maximum number	33	33	33	NA	8
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	Optional (33)	Optional (33)	Optional (33)	Standard	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 100-600 cps	Std.; (2) 600 cps	Std.; 100-600 cps	Standard	Opt.; (1) 80 cps
Line printer	Opt.; 300 lpm	Opt.; 300 lpm	Opt.; 300 lpm	Optional	—
Reel-to-reel tape drive	Opt.; 60,000 cps	Opt.; 60,000 cps	Opt.; 60,000 cps	No	—
Cassette/cartridge tape drive	No	No	No	No	—
CRT	Std.; (5) 1920 char.	Std.; (5) 1920 char.	Std.; (5) 1920 char.	Standard	Optional, 1920 char.
Other	Optional streaming tape drive	Optional streaming tape drive	Standard streaming tape drive	—	—
COMMUNICATIONS					
Maximum no. of lines	32	32	32	4	32
Synchronous	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps	Std.; 19,200 bps	Opt.; 19.2-56K bps
Asynchronous	Opt.; to 9600 bps	Opt.; to 9600 bps	Std.; to 9600 bps	Std.; 19,200 bps	Opt.; 300-19,200 bps
Protocols supported	2780/3780, SDLC	2780/3780, SDLC	2780/3780, SDLC	2780/3780	—
Network architecture supported	360/370	360/370	360/370	Compunet	—
RJE terminals emulated	Yes	Yes	Yes	2780/3780	—
IBM 3270 emulation	Yes	Yes	Yes	No	—
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	No	Yes
RPG	Yes	Yes	Yes	No	No
Fortran	Yes	Yes	Yes	Yes	Yes
Basic	Yes	Yes	Yes	Yes	No
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	—	—	—	—	—
Multiprogramming	Yes, dynamic	Yes, dynamic	Yes, dynamic	Yes	No
Max. no. of jobs run concurrently	16	16	16	3	—
Language complemented in firmware	Partially	Partially	Partially	No	No
Op. sys. implemented in firmware	Partially	Partially	Partially	No	No
General accounting packages	Yes	Yes	Yes	Yes	No
Industry application areas	Municipal govt.	Mfg., dist., construc.	Mfg., construction	Fin., ins., WP	General (OEM)
Data base management system	Yes, CREATE	Yes, CREATE	Yes, CREATE	No	No
File access methods supported	Rand., seq., ISAM	Rand., seq., ISAM	Rand., seq., ISAM	Random, seq., keyed	Random, seq.
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	NA	—
LEASE/MAINTENANCE OPTIONS					
Lease plans available	3-, 5-, 7-yr.	3-, 5-, 7-yr.	3-, 5-, 7-yr.	NA	—
Maintenance plans available	On-site	On-site	On-site	Contact vendor	—
PRICING & AVAILABILITY					
Purchase price of basic system, $	59,595	72,000	78,735	5,000 and up	11,500
Monthly rental of basic system, $	1,370	1,656	1,810	Contact vendor	—
Monthly maint. price of basic system, $	572	696	760	Contact vendor	—
Monthly maint. bundled with rental, $	—	—	—	Contact vendor	—
Purchase price of:					
additional memory module, $	8,000 (256KB)	8,000 (256KB)	8,000 (256KB)	—	625
additional workstations, $	1,550-1,950	1,550-1,950	1,550-1,950	—	1,920
additional printer, $	7,200 (100-600 cps)	7,200 (100-600 cps)	7,200 (100-600 cps)	Printer dependent	3,500
Discounts available	Turnkey & govt.	Turnkey & govt.	Turnkey & govt.	—	Yes
Date of first U.S. delivery	1975	1976	1977	April 1979	1979
Number installed to date	NA	NA	NA	5000	3500
COMMENTS	CREATE DBMS also compatible with ROLM computer using RDDS; government installations	Property management, HMO, foundations, manufacturing, distribution, and construction	Commercial printers, publishing, lumber distribution, textile mills; CREATE System generator and report writer	Desktop size; can employ any serial printer	Sold to OEMs and systems houses for resale to end users with value added

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MANUFACTURER AND MODEL	Computer Automation NAKED MINI 4 (NM 4/10, 4/30, 4/90)	Computer Automation NAKED MINI 4 (NM 4/95)	Computer Automation SyFA 50	Computer Automation SyFA 1000	Computer Automation SyFA 2000
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	NM 4/10, 4/30, 4/90	NM 4/95	LSI 4/10	LSI 2/60, 2/120	LSI 2/60, 2/120
Add time, microseconds	1.4 to 3.8 (16 bits)	1.4	—	—	—
No. of I/O ports on basic sys. and max.	—	—	256	256	256
INTERNAL STORAGE					
Type	MOS, Core	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	32K	128K	32K	64K	256K
Maximum capacity, bytes	128K	128K	64K	320K	512K
Increment size, bytes	16K	—	32K	64K	256K
Cycle/access time, microseconds	0.52	0.47/0.37	0.7	0.55	0.5
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; (2) 2M bytes	Opt.; 2M bytes	Std. (4) 1M bytes	—	—
Maximum diskette storage	4M bytes	4M bytes	4M bytes	—	—
Cartridge disk drive	Opt.; 96M bytes	Opt.; (1) 96M bytes	—	Opt.; (8) 32, 64, 96MB	Opt.; (8) 32, 64, 96MB
Pack disk drive	Opt.; 300M bytes	Opt.; (1) 300MB	—	Opt.; (8) 80, 300MB	Opt.; (8) 80, 300MB
Fixed-head disk/drum	—	5-160MB (Winch.)	—	—	—
Maximum disk storage	1200M bytes	1200M bytes	4M bytes	2400M bytes	2400M bytes
WORKSTATIONS					
Maximum number connectable	32	32	2	32	64
Recommended maximum number	16	16	2	32	48
Keyboard style	Type., num. key	Numerical	IBM Selectric	IBM Selectric	IBM Selectric
Workstation printer	Optional	Optional	2	32	64
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; (1) 150 cps	Opt.; (1) 150 cps	Opt.; (2) 30/100/180	Opt.; (32) 30/100/180	Opt.; (64) 30/100/180
Line printer	Opt.; (1) 600 lpm	Opt.; (1) 600 lpm	Opt. (1) 300/600 lpm	Opt.; (2) 300/600 lpm	Opt. (4) 300/600 lpm
Reel-to-reel tape drive	Opt.; (1) 25 ips	Opt.; (1) 25 ips	—	Opt.; (1) 100/1800 bpi	Opt.; (1) 100/1800 bpi
Cassette/cartridge tape drive	—	—	—	—	—
CRT	Opt.; 1920 char.	Opt.; 1920 char.	Std.; (2) 1920 char.	Std.; (32) 1920 char.	Std.; (64) 1920 char.
Other	—	—	—	Word processing workstation (4 maximum)	Word processing workstation (4 maximum)
COMMUNICATIONS					
Maximum no. of lines	64	64	3	33	65
Synchronous	Opt.; 1200-56K bps	Opt.; 1200-56K bps	Opt.; 4800 bps	Opt.; 4800 bps	Opt.; 9600 bps
Asynchronous	Opt.; 300-19,200 bps	Opt.; 300-19.2K bps	Opt.; 9600 bps	Opt.; 9600 bps	Std.; 9600 bps
Protocols supported	2780/3780, SDLC*	2780/3780, SDLC*	2780/3780	3780/3270 BSC	3780/3270 BSC
Network architecture supported	—	—	—	SNA PU Type 2; X.25	SNA PU Type 2; X.25
RJE terminals emulated	2780/3780 (opt.)	IBM 2780 (opt.)	2780/3780	3780/HASP	3780/HASP
IBM 3270 emulation	—	—	No	Yes	Yes
SOFTWARE SUPPORT					
Cobol	Yes	No	No	No	No
RPG	No	No	No	No	No
Fortran	Yes	Yes	No	No	No
Basic	No	No	No	No	No
Assembler	Yes	Yes	No	No	No
Other programming languages	Pasc., BCPL, Coral 66	Pasc., BCPL, Coral 66	SYBOL	SYBOL	SYBOL
Multiprogramming	No	Yes	Yes	Yes	Yes
Max. no. of jobs run concurrently	—	16	2	54	86
Language complemented in firmware	No	No	No	Yes	Yes
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	No	No	No	No	No
Industry application areas	Various (OEM)	Various (OEM)	DDP, ins., per. goods	DDP, ins., per. goods	DDP, ins., per. goods
Data base management system	No	No	No	No	No
File access methods supported	Random, seq.	Random, seq.	Random, seq.	Random, seq., ISAM	Random, seq., ISAM
Software separately priced	Yes	Yes	No	No	No
Technical help separately priced	—	—	—	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	—	—	Yes, third-party	Yes, third-party	Yes, third-party
Maintenance plans available	—	—	Yes	Yes	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	11,500-26,800	11,500-26,800	9,925	44,630	86,250
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	—	—	110	560	770
Monthly maint. bundled with rental, $	—	—	NA	NA	NA
Purchase price of:					
additional memory module, $	1,050	3,000 (128KB)	800 (32KB)	6,400 (64KB)	15,000 (256KB)
additional workstations, $	1,900	1,900	2,300	2,300	2,300
additional printer, $	3,500-16,000	3,500-11,400	2,000 (100 cps)	8,500 (300 lpm)	8,500 (300 lpm)
Discounts available	Yes	Yes	No	—	—
Date of first U.S. delivery	1977	1980	January 1981	July 1975	April 1981
Number installed to date	12,500	150	18	1000	4
COMMENTS	Sold to OEMs and systems houses for resale to end user with value added;* HDLC also available	Sold to OEMs and systems houses for resale to end user with value added;* HDLC also available		Can operate in an IBM SNA network as a physical unit (PU) Type 2	Can operate in an IBM SNA network as a physical unit (PU) Type 2

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MANUFACTURER AND MODEL	CDA Parts Handler MP/200	CDA Parts Handler Nova 4/C	CDA Parts Handler Nova 4/X	CDA Parts Handler Eclipse Line S/140-M/600	Computer Designed Systems Adviser I-1432
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	DG MP/200	DG Nova 4/C	DG Nova 4/X	S/140-M/600	I/64 CDS
Add time, microseconds	1.6	0.8	0.6	0.3	25 (5 digits)
No. of I/O ports on basic sys. and max.	5, 17	5, 17	5, 33	9, 58	1, 4
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	Core, MOS
Capacity of basic system, bytes	64K	64K	256K	256K	64K
Maximum capacity, bytes	64K	64K	256K	2M	96K
Increment size, bytes	—	—	—	128K, 256K, 512K	32K
Cycle/access time, microseconds	840/500 nano.	400/200 nano.	400/200 nano.	400/200 nano.	0.8/0.4
MASS STORAGE					
Floppy disk (diskette) drive	Std.; 1.26M bytes	Std.; 1.26M bytes	Std.; 1.26M bytes	Opt.; 1.26M bytes	No
Maximum diskette storage	1.26M bytes	1.26M bytes	1.26M bytes	1.26M bytes	—
Cartridge disk drive	No	Opt.; 10M bytes	Opt.; 10M bytes	Opt.; 10-20M bytes	Std.; 40M bytes
Pack disk drive	No	No	No	Opt.; 50-277M bytes	Opt.; 160M bytes
Fixed-head disk/drum	Std.; 12.5M bytes	Std.; 12.5M bytes	Std.; 25M bytes	Opt.; 1-16M bytes	No
Maximum disk storage	27.5M bytes	27.5M bytes	52.5M bytes	2000M bytes	—
WORKSTATIONS					
Maximum number connectable	17	17	32	58	4
Recommended maximum number	5	9	14	18 to 58	4
Keyboard style	Typewriter	Typewriter	Typewriter	Typewriter	Type., num. key.
Workstation printer	Standard	Standard	Standard	Standard	Opt.; 4
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 180 cps	Std.; 180 cps	Std.; 180 cps	Std.; 180 cps	Std.; 50 cps
Line printer	No	Opt.; 300 lpm	Opt.; 300 lpm	Opt.; 300-1500 lpm	Opt.; 300 lpm
Reel-to-reel tape drive	No	No	Opt.; 800-1600 bpi	Opt.; 800-1600 bpi	Opt.; 50KBS
Cassette/cartridge tape drive	No	No	No	Opt.; 1600 bpi	Opt.; 750 cps/72KBS
CRT	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.
Other	—	—	—	—	Yes
COMMUNICATIONS					
Maximum no. of lines	9	9	33	128	4
Synchronous	Optional	Optional	Optional	Optional	Opt.; 9600 bps
Asynchronous	Standard	Standard	Standard	Standard	Opt.; 9600 bps
Protocols supported	2780/3780	2780/3780	2780/3780	2780/3780	Bisync, Async, SDLC
Network architecture supported	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP	No
RJE terminals emulated	Yes	Yes	No	Yes	No
IBM 3270 emulation	No	No	No	Yes	No
SOFTWARE SUPPORT					
Cobol	No	No	No	Yes	Yes
RPG	No	No	No	Yes	Yes
Fortran	Yes	Yes	Yes	Yes	No
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	No
Other programming languages	DG/L, Pascal	DG/L, Pascal	DG/L, Pascal	DG/L, Algol, Pas.	Abol, Pascal
Multiprogramming	Yes	Yes	Yes, 2 partitions	Yes, up to 58 part.	Yes, 8 partitions
Max. no. of jobs run concurrently	9	9	33	58	Opt.; 8
Language complemented in firmware	NA	NA	NA	NA	Partially
Op. sys. implemented in firmware	NA	NA	NA	NA	Partially
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Auto parts dist.	Auto parts dist.	Auto parts dist.	Auto parts dist.	Dist., mfg., med.
Data base management system	No	No	No	Yes	No
File access methods supported	Random, ISAM	Random, ISAM	Random, ISAM	Random, seq., ISAM	Rand., seq., index
Software separately priced	—	—	—	—	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	5-year	5-year	5-year	5-year	3-, 5-, 7-yr., third-party
Maintenance plans available	DG National Service	DG National Service	DG National Service	DG National Service	On-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	32,945	39,545	59,945	79,945	20,300
Monthly rental of basic system, $	—	—	—	—	400
Monthly maint. price of basic system, $	—	—	—	—	185
Monthly maint. bundled with rental, $	—	—	—	—	No
Purchase price of:					
additional memory module, $	—	—	—	10,000	Varies
additional workstations, $	2,800	2,800	2,800	2,800	Varies
additional printer, $	5,000	5,000	5,000	5,000	Varies
Discounts available	—	—	—	—	Quantity (5)
Date of first U.S. delivery	September 1980	October 1980	September 1979	December 1980	1975
Number installed to date	2	1	3	1	NA
COMMENTS	Includes Winchester disk drive, PARTS HANDLER inventory system, Accounts Receivable, and POS Billing Program	Includes Winchester disk drive, PARTS HANDLER inventory system, Accounts Receivable, and POS Billing Program	Includes Winchester disk drive, PARTS HANDLER inventory system, Accounts Receivable and POS Billing Program	Includes Winchester disk drive, PARTS HANDLER inventory system, Accounts Receivable and POS Billing Program	Single source responsibility for hardware, software, service; field upgradeable

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MANUFACTURER AND MODEL	Computer Designed Systems Adviser I-2880	Computer Designed Systems Adviser IV-3160	Computer Designed Systems Adviser IV-4240	Computer Designed Systems Adviser IV-5320	Computer Hardware Inc. 2130
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	I/64 CDS	IVM-640 CDS	IVM-642 CDS	IVM-644 CDS	CHI 2130
Add time, microseconds	25 (5 digits)	10 (5 digits)	10 (5 digits)	10 (5 digits)	1.6 (1 word)
No. of I/O ports on basic sys. and max.	1, 8	1, 16	1, 24	1, 32	21, 128
INTERNAL STORAGE					
Type	Core, MOS	Core, MOS	Core, MOS	Core, MOS	MOS
Capacity of basic system, bytes	64K	64K	64K	64K	16K
Maximum capacity, bytes	128K	192K	256K	320K	128K/4M
Increment size, bytes	32K	32K	32K	32K	16K
Cycle/access time, microseconds	0.8/0.4	0.6/0.3	0.4/0.25	0.35/0.2	0.8/—
MASS STORAGE					
Floppy disk (diskette) drive	No	No	No	No	—
Maximum diskette storage	—	—	—	—	—
Cartridge disk drive	Std.; 80M bytes	Std.; 128M bytes	Std.; 192M bytes	Std.; 256M bytes	Opt.; 10M bytes
Pack disk drive	Opt.; 160M bytes	Opt.; 320M bytes	Opt.; 640M bytes	Opt.; 2400M bytes	Std.; 1600M bytes
Fixed-head disk/drum	No	No	Optional	Opt.; variable	Opt.; 2M bytes
Maximum disk storage	—	—	—	—	NA
WORKSTATIONS					
Maximum number connectable	8	16	24	32	32
Recommended maximum number	8	16	24	32	32
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Typewriter
Workstation printer	Opt.; 8	Opt.; 16	Opt.; 24	Opt.; 32	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 200 cps	Std.; 200 cps	Std.; 200 cps	Std.; 200 cps	Opt.; 60 cps
Line printer	Opt.; 300 lpm	Opt.; 600 lpm (2)	Opt.; 600 lpm (2)	Opt.; 600 lpm (4)	Opt.; 600 lpm
Reel-to-reel tape drive	Opt.; 50KBS	Opt.; 120KBS	Opt.; 120KBS	Opt.; 120KBS	Opt.; 75 ips
Cassette/cartridge tape drive	Opt.; 750 cps/72KBS	Opt.; 750 cps/72KBS	Opt.; 72KBS	Opt.; 750 cps/72KBS	No/No
CRT	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; 24 x 50 char.
Other	Yes	Yes	Optional	Optional	—
COMMUNICATIONS					
Maximum no. of lines	8	16	24	32	32 async.; 4 sync.
Synchronous	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; to 4800 bps
Asynchronous	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; to 9600 bps
Protocols supported	Bisync, Async, SDLC	Bisync, Async, SDLC	Bisync, Async, SDLC	Bisync, Async, SDLC	Bisync
Network architecture supported	No	SNA/SDLC	SNA/SDLC	SNA/SDLC	NA
RJE terminals emulated	No	2780/3780	2780/3780	2780/3780	2780/3780, 3741
IBM 3270 emulation	No	Yes	Yes	Yes	No
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes'
RPG	Yes	Yes	Yes	Yes	Yes
Fortran	No	Yes	Yes	Yes	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	No	Yes	Yes	Yes	Yes
Other programming languages	Abol, Pascal	Abol, Pascal	Abol, Pascal	Abol, Pascal	Algol, Snobol
Multiprogramming	Yes, 16 partitions	Yes, 24 partitions	Yes, 32 partitions	Yes, 54 partitions	Yes, 32 partitions
Max. no. of jobs run concurrently	Opt.; 16	Opt.; 24	Opt. 48	—	32
Language complemented in firmware	Partially	Partially	Partially	Partially	No
Op. sys. implemented in firmware	Partially	Partially	Partially	Partially	Partially
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Dist., mfg., med.	Dist., mfg., med.	Dist., mfg., med.	Dist., mfg., med.	General accounting
Data base management system	No	No	Yes	Yes	Yes
File access methods supported	Rand., seq., index	Rand., seq., index	Rand., seq., index	Rand., seq., index	Rand., seq., ISAM
Software separately priced	Yes	Yes	Yes	Yes	Some
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	3-, 5-, 7-yr., third-party	3-, 5-, 7-yr., third-party	3-, 5-, 7-yr., third-party	3-, 5-, 7-yr., third-party	2-, 3-, 5-year
Maintenance plans available	On-call	On-call	On-call	On-site, on-call	On-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	28,900	39,700	48,900	59,900	Consult factory
Monthly rental of basic system, $	700	950	1,200	1,500	Consult factory
Monthly maint. price of basic system, $	260	290	380	535	Consult factory
Monthly maint. bundled with rental, $	No	No	No	No	No
Purchase price of:					
additional memory module, $	Varies	Varies	Varies	Varies	1,500 (16K bytes)
additional workstations, $	Varies	Varies	Varies	Varies	—
additional printer, $	Varies	Varies	Varies	Varies	—
Discounts available	Quantity (5)	Quantity (5)	Quantity (5)	Quantity (5)	Consult factory
Date of first U.S. delivery	1976	1976	1977	1977	1974
Number installed to date	NA	NA	NA	NA	NA
COMMENTS	Single source responsibility for hardware, software, service; field upgradeable	Single source responsibility for hardware, software, service; preprocessors available	Single source responsibility for hardware, software, service; preprocessors available	Single source responsible for hardware, software, service; preprocessors available	Hardware floating point available

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MANUFACTURER AND MODEL	Computer Hardware Inc. 3230	Computer Hardware Inc. 4210	Computer Hardware Inc. 4800	Convergent Technologies IWS-110	Convergent Technologies IWS-120
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	CHI 3230	CHI 4210	TMS 9900	Intel 8086	Intel 8086
Add time, microseconds	2.7	4.6	—	0.6	0.6
No. of I/O ports on basic sys. and max.	21	12	2, 4	3, 7	3, 7
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	16K	8K	64K	128K	128K
Maximum capacity, bytes	128K	64K	256K	1024K	1024K
Increment size, bytes	16K	8K	16K	128K	128K
Cycle/access time, microseconds	1.6/—	1.2/—	—	—	—
MASS STORAGE					
Floppy disk (diskette) drive	No	Std.; 1.0M bytes	Standard (2)	Optional (2) 1.0M bytes	Optional (2) 1.0M bytes
Maximum diskette storage	—	—	—		
Cartridge disk drive	Opt.; 2M bytes	—	NA		
Pack disk drive	Opt.; 80M bytes	—	NA	Opt.; 10/20/40MB	Opt.; 10/20/40MB
Fixed-head disk/drum	Opt.; 2M bytes	—	NA	—	—
Maximum disk storage	NA	2.25M bytes	NA	120M bytes	120M bytes
WORKSTATIONS					
Maximum number connectable	32	4	4	16	16
Recommended maximum number	32	1	1	16	16
Keyboard style	Typewriter	Type., num. key.	Type., num. key.	98-key detachable	98-key detachable
Workstation printer	Optional	No	Standard	—	—
INPUT/OUTPUT DEVICES					
Serial printer	Optional	Opt.; 30, 180 cps	No	—	—
Line printer	Optional	No	Std.; (1) 84 lpm	—	—
Reel-to-reel tape drive	Optional	No	No	—	—
Cassette/cartridge tape drive	No/No	Standard/No	Opt.; (2) 10 ips/No		
CRT	Opt.; 24 x 80 char.	Opt.; 24 x 80 char.	Opt.; (1) 1920 char.	Std.; 34 x 80/132 ch.	Std.; 34 x 80/132 char.
Other	—	—	—	Two IEEE-796 Multibus slots	Five IEEE-796 Multibus slots
COMMUNICATIONS					
Maximum no. of lines	32 async.; 4 sync.	8 async.; 1 sync.	4	22	22
Synchronous	Opt.; to 4800 bps	Opt.; to 4800 bps	Opt.; 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps
Asynchronous	Opt.; to 9600 bps	Opt.; to 9600 bps	Std.; 2 x 19.2K bps	Std.; to 19,200 bps	Std.; to 19,200 bps
Protocols supported	Bisync	Bisync	Bisync	Bisync, Async	Bisync, Async
Network architecture supported	NA	NA	None	CT-NET, X.25	CT-NET, X.25
RJE terminals emulated	2780/3780	2780/3780	2780, 3780	2780/3780	2780/3780
IBM 3270 emulation	No	No	No	Yes	Yes
SOFTWARE SUPPORT					
Cobol	Yes	No	Yes	Yes	Yes
RPG	Yes	No	No	No	No
Fortran	Yes	Yes	Yes	Yes	Yes
Basic	Yes	No	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	Algol, Snobol	—	NA	Pascal	Pascal
Multiprogramming	Yes	Yes, 8 partitions	Yes	Yes, unlimited	Yes, unlimited
Max. no. of jobs run concurrently	32	4	4	Unlimited	Unlimited
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	Partially	No	Partially	No	No
General accounting packages	Yes	Yes	No	Financial modeling	Financial modeling
Industry application areas	General accounting	General accounting	Various	OEMs	OEMs
Data base management system	Yes	No	No	Yes	Yes
File access methods supported	Rand., seq., ISAM	Seq., random	Seq., random	ISAM, seq., dir., ind.	ISAM, seq., dir., ind.
Software separately priced	Some	Yes	Some	Yes, except OS & util.	Yes, except OS & util.
Technical help separately priced	No	No	Some	No	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	2-, 3-, 5-year	1-, 2-, 3-, 5-year	1-, 2-, 3-, 5-year	—	—
Maintenance plans available	On-call	On-call, factory ret.	On-call, factory ret.	Third-party	Third-party
PRICING & AVAILABILITY					
Purchase price of basic system, $	Consult factory	Consult factory	8,850	6,500	10,500
Monthly rental of basic system, $	Consult factory	Consult factory	325/mo. (24 mo.)	—	—
Monthly maint. price of basic system, $	Consult factory	Consult factory	Consult factory	—	—
Monthly maint. bundled with rental, $	No	No	No	—	—
Purchase price of:					
additional memory module, $	1,500 (16K bytes)	960 (8K bytes)	1,500 (32K bytes)	1,950 (128KB)	1,950 (128KB)
additional workstations, $	—	—	NA	—	—
additional printer, $	—	—	Consult factory	—	—
Discounts available	Consult factory	Consult factory	Consult factory	OEM volume discount to 35%	OEM volume discount to 35%
Date of first U.S. delivery	1976	1977	October 1979	1980	1981
Number installed to date	NA	NA	—	NA	NA
COMMENTS	Hardware floating point available			Includes 15-in., high-resolution CRT; stand-alone or multiple IWS & AWS workstations can be connected in a local network sharing data bases & peripherals	See IWS-110 Comments

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MANUFACTURER AND MODEL	Convergent Technologies AWS-210	Convergent Technologies AWS-220	Convergent Technologies AWS-230	Convergent Technologies AWS-240	Data Communications Corp. DCS
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	Intel 8088	Intel 8088	Intel 8088	Intel 8088	See Comments
Add time, microseconds	0.8	0.8	0.8	0.8	0.80 (1 word)
No. of I/O ports on basic sys. and max.	1	4	4	4	4, 24
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	Core
Capacity of basic system, bytes	128K	128K	256K	128K	8K
Maximum capacity, bytes	512K	512K	512K	512K	32K
Increment size, bytes	128K	128K	128K	128K	8K
Cycle/access time, microseconds	—	—	—	—	0.80/0.40
MASS STORAGE					
Floppy disk (diskette) drive	—	Standard (1)	Standard (2)	Standard (1)	Opt.; 500K bytes
Maximum diskette storage	—	315K bytes	630K bytes	315K bytes	1.6M bytes
Cartridge disk drive	—	—	—	—	Std.; 100M bytes
Pack disk drive	—	—	—	Std.; 5M bytes	Opt.; 92M bytes
Fixed-head disk/drum	—	—	—	—	Opt.; 2M bytes
Maximum disk storage	—	315K bytes	630K bytes	5M bytes	—
WORKSTATIONS					
Maximum number connectable	—	—	—	4	64
Recommended maximum number	—	—	—	4	64
Keyboard style	98-key detachable	98-key detachable	98-key detachable	98-key detachable	All types
Workstation printer	—	—	—	—	Optional
INPUT/OUTPUT DEVICES					
Serial printer	—	—	—	—	Std.; 165 cps
Line printer	—	—	—	—	Opt.; 300-1200 lpm
Reel-to-reel tape drive	—	—	—	—	Opt.; 60KBS
Cassette/cartridge tape drive	—	—	—	—	Opt. cassette
CRT	Std.; 34 x 80/132 ch.	Std.; 34 x 80/132 ch.	Std.; 34 x 80/132 ch.	Std.; 80 x 28 char.	Std.; 24 x 80 char.
Other	—	—	—	—	Opt.
COMMUNICATIONS					
Maximum no. of lines	—	3	3	3	256
Synchronous	—	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps
Asynchronous	—	Std.; to 19,200 bps	Std.; to 19,200 bps	Std.; to 19,200 bps	Opt.; to 9600 bps
Protocols supported	—	Bisync, Async	Bisync, Async	Bisync, Async	All
Network architecture supported	CT-NET, X.25	CT-NET, X.25	CT-NET, X.25	CT-NET, X.25	TNA, SNA
RJE terminals emulated	2780/3780	2780/3780	2780/3780	2780/3780	2780/3780
IBM 3270 emulation	Yes	Yes	Yes	—	Yes
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	No	No	No	No	Yes
Fortran	Yes	Yes	Yes	Yes	Fortran IV, V
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	Pascal	Pascal	Pascal	Pascal	Algol
Multiprogramming	Yes, unlimited	Yes, unlimited	Yes, unlimited	Yes, unlimited	Yes
Max. no. of jobs run concurrently	Unlimited	Unlimited	Unlimited	Unlimited	2
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Financial modeling	Financial modeling	Financial modeling	Financial modeling	Yes
Industry application areas	OEMs	OEMs	OEMs	OEMs	Various
Data base management system	Yes	Yes	Yes	Yes	No
File access methods supported	ISAM, seq., dir., ind.	ISAM, seq., dir., ind.	ISAM, seq., dir., ind.	ISAM, ran., seq., ind.	Rand., seq., index
Software separately priced	Yes, except OS & util.	Yes, except OS & util.	Yes, except OS & util.	Yes, except OS & util.	Yes
Technical help separately priced	No	No	No	No	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	—	—	—	—	Purchase only
Maintenance plans available	Third-party	Third-party	Third-party	Third-party	On-call, on-site
PRICING & AVAILABILITY					
Purchase price of basic system, $	3,990	6,100	6,990	9,900	50,000
Monthly rental of basic system, $	—	—	—	—	Purchase only
Monthly maint. price of basic system, $	—	—	—	—	—
Monthly maint. bundled with rental, $	—	—	—	—	No
Purchase price of:					
additional memory module, $	—	—	—	—	8,000 (256K bytes)
additional workstations, $	—	—	—	—	1,190
additional printer, $	—	—	—	—	12,500 (300 lpm)
Discounts available	OEM volume discount to 35%	OEM volume discount to 35%	OEM volume discount to 35%	OEM volume discount to 35%	Quantity
Date of first U.S. delivery	1981	1982	1982	1982	March 1977
Number installed to date	NA	NA	NA	—	NA
COMMENTS	See IWS-110 Comments	See IWS-110 Comments	See IWS-110 Comments	See IWS-110 Comments	

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MANUFACTURER AND MODEL	Data Communications Corp. DPS	Data Communications Corp. RTS	Data Communications Corp. TPS	Data General CS/10 MOD. C1	Data General CS/10 MOD. C3
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	See Comments	DG microNOVA 3/12	See Comments	DG microNOVA	DG microNOVA
Add time, microseconds	0.60 (1 word)	0.80 (1 word)	0.80 (1 word)	2.4	2.4
No. of I/O ports on basic sys. and max.	5, 59	4, 24	4, 24	1, 4	1, 4
INTERNAL STORAGE					
Type	Core	Core	Core	NMOS	NMOS
Capacity of basic system, bytes	32K/64K	8K	96K	64K	128K
Maximum capacity, bytes	256K	32K	256K	64K	128K
Increment size, bytes	16K	8K	32K	—	—
Cycle/access time, microseconds	0.80/0.40	0.80/0.40	0.80/0.40	960 nano.	960 nano.
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; 500K bytes	Opt.; 500K bytes	Opt.; 500K bytes	Std.; 1.2M bytes	Std.; 1.2M bytes
Maximum diskette storage	1.6M bytes	1.6M bytes	1.6M bytes	2.4M bytes	2.4M bytes
Cartridge disk drive	Std.; 10M bytes	Std.; 10M bytes	Std.; 10M bytes	No	No
Pack disk drive	Opt.; 92M bytes	Opt.; 92M bytes	Opt.; 92M bytes	No	No
Fixed-head disk/drum	Opt.; 2M bytes	Opt.; 2M bytes	Opt.; 2M bytes	Std.; 12.5M bytes	Std.; 12.5M bytes
Maximum disk storage	—	—	—	25M bytes	25M bytes
WORKSTATIONS					
Maximum number connectable	39	39	39	4	4
Recommended maximum number	39	39	39	4	4
Keyboard style	All types	All types	All types	Type., num. key.	Type., num. key.
Workstation printer	Optional	Optional	Optional	Opt.; 3	Opt.; 3
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 165 cps	Std.; 165 cps	Std.; 165 cps	Opt.; 60, 180 cps	Opt.; 60, 180 cps
Line printer	Opt.; 200-1200 lpm	Opt.; 300-1200 lpm	Opt.; 300-1200 lpm	Opt.; 240, 300 lpm	Opt.; 240, 300 lpm
Reel-to-reel tape drive	Opt.; 60KBS	Opt.; 60KBS	Opt.; 60KBS	No	No
Cassette/cartridge tape drive	Opt. cassette	Opt. cassette	Opt. cassette	No	No
CRT	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	Optional	Optional	Optional	None	None
COMMUNICATIONS					
Maximum no. of lines	256	256	256	1	1
Synchronous	Opt.; to 50K bps	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps
Asynchronous	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps	No	No
Protocols supported	All	All	All	Bisync	Bisync
Network architecture supported	TNA, SNA, X.25	TNA, SNA, X.25	TNA, SNA, X.25	No	No
RJE terminals emulated	2780/3780	2780/3780	2780/3780	2780/3780	2780/3780
IBM 3270 emulation	Yes	Yes	Yes	No	No
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	RPG II	Yes	No	No	No
Fortran	Fortran IV, V	Fortran IV, V	Fortran IV, V	No	No
Basic	Yes	Yes	Yes	No	No
Assembler	Yes	Yes	Yes	No	No
Other programming languages	Algol	Algol	Algol	No	No
Multiprogramming	Yes 1F, 1B	Yes	No	No	No
Max. no. of jobs run concurrently	2	NA	2	1	1
Language complemented in firmware	Fully	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	No	No
Industry application areas	Mortgages	Broadcasting, dist.	Banking, gen. mktg.	Dist., mfg., retail	Dist., mfg., retail
Data base management system	INFOS	No	No	No	No
File access methods supported	Rand., seq., index	Rand., seq., index	Rand., seq., index	Rand., seq., ISAM	Rand., seq., ISAM
Software separately priced	Yes	Yes	Yes	No	No
Technical help separately priced	Yes	Yes	Yes	No	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Purchase only	Purchase only	Purchase only	No	No
Maintenance plans available	On-call, on-site	On-call, on-site	On-call, on-site	On-site, on-call	On-site, on-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	On request	25,000	85,000	10,950	24,440
Monthly rental of basic system, $	Purchase only	Purchase only	Purchase only	NA	NA
Monthly maint. price of basic system, $	—	—	—	NA	NA
Monthly maint. bundled with rental, $	No	No	No	NA	NA
Purchase price of:					
additional memory module, $	8,000 (256K bytes)	8,000 (256K bytes)	8,000 (256K bytes)	—	—
additional workstations, $	1,190	1,190	1,190	2,290	2,290
additional printer, $	12,500 (300 lpm)	12,500 (300 lpm)	12,500 (300 lpm)	4,050 (180 cps)	4,050 (180 cps)
Discounts available	Quantity	Quantity	Quantity	Qty., dollar vol.	Qty., dollar vol.
Date of first U.S. delivery	September 1976	March 1977	NA	July 1980	July 1980
Number installed to date	NA	NA	NA	NA	NA
COMMENTS	CPUs include DG Nova 3/D, DG Eclipse S130/ S230/S330		CPUs include DG Nova 3/D, DG Eclipse S130/ S230/S330	Interactive COBOL, uses Winchester disk drives	Interactive COBOL, uses Winchester disk drives

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MANUFACTURER AND MODEL	Data General CS/50 MOD. C3	Data General CS/50 MOD. C5	Data General CS/50 MOD. C6	Data General CS/70 MOD. C5	Data General CS/70 MOD. C6
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	DG Nova 4	DG Nova 4	DG Nova 4	DG Eclipse	DG Eclipse
Add time, microseconds	0.70	0.70	0.70	0.60	0.60
No. of I/O ports on basic sys. and max.	1, 3	1, 3	1, 9	1, 9	1, 17
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS/ERCC	MOS/ERCC
Capacity of basic system, bytes	64K	128K	128K	128K	512K
Maximum capacity, bytes	64K	256K	256K	256K	512K
Increment size, bytes	—	128K	128K	128K	—
Cycle/access time, microseconds	700 nano.	700 nano.	700 nano.	400 nano.	400 nano.
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; 315K bytes	Opt.; 315K bytes	Opt.; 315K bytes	Std.; 1.2M bytes	Std.; 1.2M bytes
Maximum diskette storage	315K bytes	315K bytes	315K bytes	1.2M bytes	1.2M bytes
Cartridge disk drive	Std.; 20M bytes	Std.; 20M bytes	No	No	No
Pack disk drive	No	No	Std.; 50M bytes	No	Std.; 380M bytes
Fixed-head disk/drum	No	Opt.; 12.5-25M bytes	No	Std.; 25M bytes	No
Maximum disk storage	20M bytes	25M bytes	200M bytes	40M bytes	760M bytes
WORKSTATIONS					
Maximum number connectable	3	3	9	9	17
Recommended maximum number	3	3	9	9	17
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key
Workstation printer	Opt.; 3	Opt.; 3	Opt.; 8	Opt.; 8	Opt.; 16
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 60, 180 cps	Std.; 60, 180 cps	Std.; 60, 180 cps	Std.; 180 cps	Std.; 180 cps
Line printer	Std.; 300 lpm	Std.; 300 lpm	Std.; 300 lpm	Std.; 300 lpm	Std.; 300-600 lpm
Reel-to-reel tape drive	Opt.; to 1600 bpi	Opt.; to 1600 bpi	Opt.; to 1600 bpi	No	No
Cassette/cartridge tape drive	No	No	No	No	No
CRT	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	None	None	None	None	None
COMMUNICATIONS					
Maximum no. of lines	1	1	1	1	1
Synchronous	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; 9600 bps
Asynchronous	No	No	No	No	No
Protocols supported	Bisync	Bisync	Bisync	Bisync	Bisync
Network architecture supported	No	No	No	No	No
RJE terminals emulated	2780/3780	2780/3780	2780/3780	2780/3780	2780/3780
IBM 3270 emulation	No	No	No	No	No
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	No	No	No	No	No
Fortran	No	No	No	No	No
Basic	No	No	No	No	No
Assembler	No	No	No	No	No
Other programming languages	No	No	No	No	No
Multiprogramming	Yes	Yes	Yes	Yes	Yes
Max. no. of jobs run concurrently	3	3	9	9	17
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	No	No	No	No	No
Industry application areas	Dist., mfg., retail	Dist., mfg., retail	Dist., mfg., retail	Dist., mfg., retail	Dist., mfg., retail
Data base management system	No	No	No	No	No
File access methods supported	Rand., seq., ISAM	Rand., seq., ISAM	Rand., seq., ISAM	Rand., seq., ISAM	Rand., seq., ISAM
Software separately priced	No	No	No	No	No
Technical help separately priced	No	No	No	No	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	NA	NA	NA	NA	NA
Maintenance plans available	On-site, on-call	On-site, on-call	On-site, on-call	On-site, on-call	On-site, on-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	27,555	31,755	52,105	53,050	53,050
Monthly rental of basic system, $	NA	NA	NA	NA	NA
Monthly maint. price of basic system, $	242	262	407	—	—
Monthly maint. bundled with rental, $	NA	NA	NA	NA	NA
Purchase price of:					
additional memory module, $	—	5,250 (128K bytes)	5,250 (128K bytes)	5,250 (128K bytes)	8,400 (256K bytes)
additional workstations, $	2,290	2,290	2,290	2,290	2,290
additional printer, $	4,050 (180 cps)	4,050 (180 cps)	4,050 (180 cps)	12,300 (300 lpm)	12,300 (300 lpm)
Discounts available	Qty., dollar vol.	Qty., dollar vol.	Qty., dollar vol.	Qty., dollar vol.	Qty., dollar vol.
Date of first U.S. delivery	February 1980	February 1980	February 1980	July 1980	July 1980
Number installed to date	NA	NA	NA	NA	NA
COMMENTS	Interactive COBOL; up to 3 terminals; multi-terminal control & built-in screen handlers	Interactive COBOL; up to 3 terminals; multi-terminal control & built-in screen handlers	Interactive COBOL; up to 9 terminals; multi-terminal control & built-in screen handlers	Interactive COBOL; up to 9 terminals; multi-terminal control & built-in screen handlers	Interactive COBOL; up to 9 terminals; multi-terminal control & built-in screen handlers

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MANUFACTURER AND MODEL	Data General Enterprise 1000	Data General Enterprise 3000	Datapoint 1550	Datapoint 1800	Datapoint 3800
WORD LENGTH, BITS	16	16	8-bit byte	8-bit byte	8-bit byte
CPU					
Model	DG microNOVA	DG microNOVA	Datapoint 1550	Datapoint 1800	Datapoint 3800
Add time, microseconds	2.4	2.4	1.08	3.8	3.8
No. of I/O ports on basic sys. and max.	2	2	2	2	4 (maximum)
INTERNAL STORAGE					
Type	Dynamic RAM NMOS	Dynamic RAM NMOS	MOS	MOS	MOS
Capacity of basic system, bytes	64K	64K	32K	64K	64K
Maximum capacity, bytes	64K	64K	96K	128K	128K
Increment size, bytes	—	—	32K	64K	32K/64K
Cycle/access time, microseconds	960 nano.	960 nano.	270 nano.	0.723 to 0.814	1.75
MASS STORAGE					
Floppy disk (diskette) drive	Std.; dual floppies	Std.; dual floppies	Std.; 1M-8M bytes	Std.; 1M to 8M bytes	No
Maximum diskette storage	—	—	8M bytes	8M bytes	No
Cartridge disk drive	—	—	10-40M bytes	10-40M bytes	No
Pack disk drive	—	—	No	No	No
Fixed-head disk/drum	—	Std.; 12.5MB	No	No	No
Maximum disk storage	—	—	40M bytes	40M bytes	—
WORKSTATIONS					
Maximum number connectable	1	1	4	9	4
Recommended maximum number	1	1	4	9	2
Keyboard style	96-char. U/L ASCII	96-char. U/L ASCII	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	150-cps, bidirectional, logic-seeking printer	150-cps, bidirectional, logic-seeking printer	Optional, 4	Optional, 8	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 150 cps	Std.; 150 cps	Opt.; 160 cps	Opt.; 160 cps	No
Line printer	—	—	Opt.; 230-340 lpm	Opt.; 900 lpm	Opt.; 300-900 lpm
Reel-to-reel tape drive	—	—	No	No	No
Cassette/cartridge tape drive	—	—	No	No	No
CRT	Std.; 25 x 80 char.	Std.; 25 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	RS-232-C	RS-232-C	—	—	—
COMMUNICATIONS					
Maximum no. of lines	2	2	1	8	4
Synchronous	50-19,200 bps	50-19,200 bps	Opt.; 4800 bps	Std.; 9600 bps	Opt.; to 9600 bps
Asynchronous	—	—	Opt.; 9600 bps	Std.; 9600 bps	Opt.; to 9600 bps
Protocols supported	Sync, Async	Sync, Async	Bisync, Async, TTY	Bisync, Async, TTY	Bisync, Async
Network architecture supported	—	—	—	ARC	ARC
RJE terminals emulated	—	—	2780/3780, others	2780/3780, HASP*	2780/3780, HASP
IBM 3270 emulation	—	—	Yes	Yes	Yes
SOFTWARE SUPPORT					
Cobol	No	No	No	Yes	Yes
RPG	No	No	No	Yes	Yes
Fortran	No	No	Yes	Yes	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	No	No	Yes	Yes	Yes
Other programming languages	—	—	Databus, Datashare	Databus, Datashare	Databus
Multiprogramming	No	No	Yes	Yes	Yes
Max. no. of jobs run concurrently	1	1	2	9	4
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	No	No	No	No	Yes
Industry application areas	General-purpose	General-purpose	General-purpose	General-purpose	General-purpose
Data base management system	—	—	No	No	No
File access methods supported	Seq., rand., ISAM	Seq., rand., ISAM	Rand., seq., ISAM	Rand., seq., ISAM, **	Rand., seq., ISAM, *
Software separately priced	Yes	Yes	No	No	No
Technical help separately priced	Yes	Yes	No	No	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Third-party	—	1-, 2-, 3-yr. lease	1-, 2-, 3-yr. lease	1-, 2-, 3-yr. lease
Maintenance plans available	Yes	Yes	On-site, on-call	On-site, on-call	On-site, on-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	7,195	13,995	Contact vendor	Contact vendor	Contact vendor
Monthly rental of basic system, $	—	—	Contact vendor	Contact vendor	—
Monthly maint. price of basic system, $	1.1% per month	1.1% per month	Contact vendor	Contact vendor	—
Monthly maint. bundled with rental, $	—	—	No	No	No
Purchase price of:					
additional memory module, $	—	—	650 (32KB)	1,300 (64KB)	—
additional workstations, $	—	—	1,895 (8200-8220)	1,895 (8200-8220)	—
additional printer, $	—	—	3,990 (30 cps)	3,990 (30 cps)	—
Discounts available	—	—	Quantity, OEM	Quantity, OEM	OEM
Date of first U.S. delivery	September 1981	January 1982	February 1981	August 1978	February 1978
Number installed to date	—	—	1500	3500	NA
COMMENTS	Video disk user training program	Integrated application software; video disk user training program		*Other RJE terminals emulated; **also supports the AIM file access method	*Also supports the AIM file access method

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MANUFACTURER AND MODEL	Datapoint 6600	Datapoint 8600	Datapoint 8800	Dicom Industries 401	Digilog Work Station 900
WORD LENGTH, BITS	8-bit byte	8-bit byte	16	16	8
CPU					
Model	Datapoint 6600	Datapoint 8600	Datapoint 8800	DEC LSI-11/23	Zilog Z80A
Add time, microseconds	1.15	—	NA	1.72 (16 bits)	1.0
No. of I/O ports on basic sys. and max.	24	1, 13	8, 24	4, 12	3
INTERNAL STORAGE					
Type	MOS	MOS	MOS, ECC	MOS	MOS
Capacity of basic system, bytes	60K	128K	256K	96K	64K
Maximum capacity, bytes	256K	256K	1024K	256K	64K
Increment size, bytes	128K	128K	128K	32K	—
Cycle/access time, microseconds	0.6/0.2	—	NA	0.5/0.1	200 nano.
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; 1M bytes	Opt.; 1M bytes	—	Optional	No
Maximum diskette storage	—	1M bytes	—	—	—
Cartridge disk drive	Opt.; 160M bytes	10-40M bytes	—	Std.; 6M-12M bytes	No
Pack disk drive	Opt.; 200M bytes	No	Std.; 200M bytes	Opt.; 100M bytes	No
Fixed-head disk/drum	No	20-100M bytes	No	No	No
Maximum disk storage	500M bytes	100M bytes	1012M bytes	—	—
WORKSTATIONS					
Maximum number connectable	24	13	24	—	1
Recommended maximum number	12-14	13	6-24	—	1
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Typewriter
Workstation printer	Optional	Optional, 12	Optional	—	1, 2
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 80, 120 cps	Opt.; 160 cps	Opt.; 80, 120 cps	Std.; 30/80 cps	Standard
Line printer	Opt.; 300, 600 lpm	Opt.; 230-340 lpm	Opt.; 300-600 lpm	Opt.; 240/300 lpm	Standard
Reel-to-reel tape drive	Opt.; to 1600 bpi	No	Opt.; to 1600 bpi	No	No
Cassette/cartridge tape drive	Cast.; optional	Opt.; 20M bytes	Opt.; cartridge	Optional/No	No
CRT	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 1920 char.
Other	—	—	—	—	Any RS-232-C device
COMMUNICATIONS					
Maximum no. of lines	24	2	24	8	2
Synchronous	Opt.; to 9600 bps	110-56,000 bps	Opt.; to 9600 bps	Optional	—
Asynchronous	Opt.; to 9600 bps	110-56,000 bps	Opt.; to 9600 bps	Standard; 19.2K bps	Std.; 9600 bps
Protocols supported	Async, Bisync	Sync, Async, SDLC, C	Async, Bisync	2780	—
Network architecture supported	ARC	ARC	ARC	—	X.25-like protocol
RJE terminals emulated	2780/3780, HASP	2780/3780, 3277, *	2780/3780	—	No
IBM 3270 emulation	Yes	Yes	Yes	—	No
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	Yes	Yes	Yes	Yes	No
Fortran	Yes	Yes	No	Yes	Yes
Basic	Yes	Yes	No	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	Databus, Datashare	Databus, Datashare	Databus, Datashare	APL	Yes
Multiprogramming	Yes, 2 partitions	Yes	Yes	Yes	No
Max. no. of jobs run concurrently	24	13	24	—	1
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	—	No
General accounting packages	Yes	No	Yes	Yes	Yes
Industry application areas	Gov't., acct'g., banking	General-purpose	General-purpose	Business, accounting	Gen., prof., planning
Data base management system	No	No	No	No	Yes
File access methods supported	Rand., seq., ISAM, *	Rand., seq., ISAM, **	Rand., seq., ISAM, *	Sequential, ISAM	Rand., seq., ISAM
Software separately priced	No	No	No	Yes	Yes
Technical help separately priced	No	No	No	Yes	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	1-, 2-, 3-yr. lease	1-, 2-, 3-yr. lease	1-, 2-, 3-yr. lease	—	—
Maintenance plans available	On-site, on-call	On-site, on-call	On-site, on-call	—	—
PRICING & AVAILABILITY					
Purchase price of basic system, $	Contact vendor	Contact vendor	Contact vendor	16,500	Contact vendor
Monthly rental of basic system, $	—	Contact vendor	—	Purchase only	No
Monthly maint. price of basic system, $	—	Contact vendor	—	—	—
Monthly maint. bundled with rental, $	No	No	No	—	—
Purchase price of:					
additional memory module, $	—	2,600	—	—	—
additional workstations, $	—	1,895 (8200-8220)	—	—	—
additional printer, $	—	3,990 (30 cps)	—	—	—
Discounts available	OEM	Quantity, OEM	OEM	—	ISO
Date of first U.S. delivery	July 1976	February 1981	December 1980	March 1981	February 1981
Number installed to date	NA	1500	1500	NA	NA
COMMENTS	*Also supports the AIM file access method	*Other RJE terminals emu-lated; **alsp supports the AIM file access method	*Also supports the AIM file access method		

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MANUFACTURER AND MODEL	Digilog System 1000	Digilog System 1500	Digilog System 1800	Digital Equipment Corp. Datasystem 208	Digital Equipment Corp. Datasystem 315
WORD LENGTH, BITS	8	8	8	12	16
CPU					
Model	Zilog Z80A	Zilog Z80A	Dual Zilog Z80As	DEC PDP-8/A	DEC PDP-11/23
Add time, microseconds	1.0	1.0	1.0	—	NA
No. of I/O ports on basic sys. and max.	2, 4	2, 4	4	10/10	3, 3
INTERNAL STORAGE					
Type	MOS	MOS	MOS	Core	MOS
Capacity of basic system, bytes	64K	64K	128K	16K	64K
Maximum capacity, bytes	64K	64K	128K	16K	256K
Increment size, bytes	—	—	—	—	64K
Cycle/access time, microseconds	299 nano.	200 nano.	200 nano.	3.6/NA	NA
MASS STORAGE					
Floppy disk (diskette) drive	Std.; 716K-1.6MB	Std.; 820K bytes	Std.; 820K bytes	Standard	Standard
Maximum diskette storage	1.6M bytes	820K bytes	820K bytes	2M bytes	1M bytes
Cartridge disk drive	No	No	No	No	No
Pack disk drive	No	Std.; 5M bytes	Std.; 5MB (10MB opt.)	No	No
Fixed-head disk/drum	No	No	No	No	No
Maximum disk storage	—	5M bytes	10M bytes	2M bytes	1M bytes
WORKSTATIONS					
Maximum number connectable	1	1	16	1	3
Recommended maximum number	1	1	16	1	1
Keyboard style	Typewriter	Typewriter	Typewriter	Type., num. key.	Type., num., key.
Workstation printer	1, 2	1, 2	1, 2	—	No
INPUT/OUTPUT DEVICES					
Serial printer	Standard	Standard	Standard	Opt.; 180 cps	Opt.; 180 cps
Line printer	Standard	Standard	Standard	No	No
Reel-to-reel tape drive	No	No	No	No	No
Cassette/cartridge tape drive	No	No	No	No	No
CRT	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	Any RS-232-C device	Any RS-232-C device	Any RS-232-C device	NA	No
COMMUNICATIONS					
Maximum no. of lines	3	3	2	2	4
Synchronous	Opt.; 4800 bps	Opt.; 4800 bps	Std.; 4800 bps	No	No
Asynchronous	Std.; 9600 bps	Std.; 9600 bps	Std.; 9600 bps	Yes	Yes
Protocols supported	2780/3780	2780/3780	2780/3780	Async	2780/3780
Network architecture supported	X.25-like protocol	X.25-like protocol	X.25-like protocol	NA	NA
RJE terminals emulated	Yes	Yes	Yes	2780	2780/3780
IBM 3270 emulation	No	No	No	NA	No
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	No	No
RPG	No	No	No	No	No
Fortran	Yes	Yes	Yes	Yes	No
Basic	Yes	Yes	Yes	Yes	No
Assembler	Yes	Yes	Yes	NA	No
Other programming languages	Yes	Yes	Yes	NA	DIBOL-11 (Cobol)
Multiprogramming	No	No	No	Yes	Yes
Max. no. of jobs run concurrently	1	1	1	127 tasks	3
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	No	No
Industry application areas	Gen., prof., planning	Gen., prof., planning	Gen., prof., planning	General business	Business acct.
Data base management system	Yes	Yes	Yes	No	No
File access methods supported	Rand., seq., ISAM	Rand., seq., ISAM	Rand., seq., ISAM	Seq., under seq., rand.	Sequential, ISAM
Software separately priced	No	No	Yes	No	No
Technical help separately priced	No	No	No	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	—	—	—	NA	Contact vendor
Maintenance plans available	—	—	—	NA	On-site
PRICING & AVAILABILITY					
Purchase price of basic system, $	4,995	8,795	9,995	10,495	13,000
Monthly rental of basic system, $	No	No	No	NA	—
Monthly maint. price of basic system, $	—	—	—	68	89
Monthly maint. bundled with rental, $	—	—	—	NA	—
Purchase price of:					
additional memory module, $	—	—	—	—	NA
additional workstations, $	—	—	—	—	No
additional printer, $	—	—	—	Contact vendor	No
Discounts available	ISO	ISO	ISO	Yes	OEM and volume
Date of first U.S. delivery	February 1981	July 1981	February 1982	September 1978	November 1980
Number installed to date	NA	NA	NA	20,000+	—
COMMENTS					Includes RT-11 operating system

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MANUFACTURER AND MODEL	Digital Equipment Corp. Datasystem 336	Digital Equipment Corp. Datasystem 346	Digital Equipment Corp. Datasystem 348	Digital Equipment Corp. Datasystem 356	Digital Equipment Corp. Datasystem 358
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	DEC PDP-11/23	DEC PDP-11/24	DEC PDP-11/24	DEC PDP-11/34A	DEC PDP-11/34A
Add time, microseconds	NA	NA	NA	NA	—
No. of I/O ports on basic sys. and max.	8, 8	—	—	—	—
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	128K	256K	256K	256K	256K
Maximum capacity, bytes	256K	256K	256K	256K	256K
Increment size, bytes	32K	—	—	—	—
Cycle/access time, microseconds	500 ns./NA	—	—	510 ns./NA	0.73/0.7
MASS STORAGE					
Floppy disk (diskette) drive	No	No	No	No	No
Maximum diskette storage	—	—	—	—	—
Cartridge disk drive	Std.; 20.8M bytes	Std.; 20.8M bytes	Std.; 56M bytes	Std.; 20.8M bytes	Std.; 56M bytes
Pack disk drive	No	No	No	No	No
Fixed-head disk/drum	No	No	No	No	No
Maximum disk storage	41.6M bytes	41.6M bytes	224M bytes	41.6M bytes	224M bytes
WORKSTATIONS					
Maximum number connectable	8	—	—	12	12
Recommended maximum number	6	—	—	8 to 10	8 to 10
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	No	No	No	Optional (1)	Optional (1)
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 180 cps	Opt.; 180 cps	Opt.; 180 cps	Opt.; 180 cps	Opt.; 30, 180 cps
Line printer	No	No	No	Opt.; 240-900 lpm	Opt.; 240-900 lpm
Reel-to-reel tape drive	No	No	No	Opt.; 10KBS	Opt.; 10KBS
Cassette/cartridge tape drive	No	No	No	No	No
CRT	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	No	No	No	—	—
COMMUNICATIONS					
Maximum no. of lines	4	2	2	8	8
Synchronous	No	No	No	Opt.; to 9600 bps	Opt.; to 9600 bps
Asynchronous	Yes	Yes	Yes	No	No
Protocols supported	2780/3780	2780/3780	2780/3780	2780/3780	2780/3780
Network architecture supported	NA	NA	NA	DECnet	DECnet
RJE terminals emulated	2780/3780	2780/3780	2780/3780	2780/3780	2780/3780
IBM 3270 emulation	No	No	No	No	No
SOFTWARE SUPPORT					
Cobol	No	No	No	No	No
RPG	No	No	No	No	No
Fortran	No	No	No	No	No
Basic	No	No	No	No	No
Assembler	No	No	No	No	No
Other programming languages	DIBOL-11 (Cobol)	DIBOL-11 (Cobol)	DIBOL-11 (Cobol)	DIBOL-11 (Cobol)	DIBOL-11 (Cobol)
Multiprogramming	Yes	Yes	Yes	Yes	Yes
Max. no. of jobs run concurrently	16	—	—	16	16
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	No	No	No	No	No
Industry application areas	Business acct.	General business	General business	Business acct.	Business acct.
Data base management system	No	No	No	No	No
File access methods supported	Sequential, ISAM	Sequential, ISAM	Sequential, ISAM	Sequential, ISAM	Seq., index seq.
Software separately priced	No	No	No	No	No
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Maintenance plans available	On-site	On-site	On-site	On-site	On-site
PRICING & AVAILABILITY					
Purchase price of basic system, $	30,500	38,000	54,800	43,400	60,900
Monthly rental of basic system, $	Purchase only	—	—	—	—
Monthly maint. price of basic system, $	232	256	412	274	427
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	NA	—	—	—	—
additional workstations, $	NA	—	—	—	—
additional printer, $	NA	—	—	8,350 (285 lpm)	8,350 (285 lpm)
Discounts available	OEM and volume	OEM and volume	OEM and volume	OEM and volume	OEM and volume
Date of first U.S. delivery	April 1980	1981	1981	1980	September 1978
Number installed to date	NA	NA	NA	NA	NA
COMMENTS	Includes CTS-300 operating system	The Physical Address Extension memory module permits memory expansion to 768KB only when the system is upgraded to CTS-500, RSTS/E, or RSX-11M	The Physical Address Extension memory module permits memory expansion to 1MB; includes the CTS-300 operating system (as does the Datasystem 346)	Includes the CTS-300 operating system	Includes the CTS-300 operating system

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MANUFACTURER AND MODEL	Digital Equipment Corp. Datasystem 522	Digital Equipment Corp. Datasystem 528	Digital Equipment Corp. Datasystem 532	Digital Equipment Corp. Datasystem 538	Digital Equipment Corp. Datasystem 546
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	DEC PDP-11/24	DEC PDP-11/24	DEC PDP-11/34A	DEC PDP-11/34A	DEC PDP-11/44
Add time, microseconds	—	—	—	—	—
No. of I/O ports on basic sys. and max.	—	—	—	—	—
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	256K	256K	256K	256K	512K (8K cache)
Maximum capacity, bytes	768K*	1M*	256K	256K	1M*
Increment size, bytes	—	—	—	—	256K
Cycle/access time, microseconds	—	—	—	—	—
MASS STORAGE					
Floppy disk (diskette) drive	No	No	No	No	No
Maximum diskette storage	—	—	—	—	—
Cartridge disk drive	Std.; 20.8M bytes	Std.; 56M bytes	Std.; 20.8M bytes	Std.; 56M bytes	Std.; 67M bytes
Pack disk drive	No	No	No	No	No
Fixed-head disk/drum	No	No	No	No	No
Maximum disk storage	41.6M bytes	224M bytes	41.6M bytes	224M bytes	536M bytes
WORKSTATIONS					
Maximum number connectable	—	—	—	—	—
Recommended maximum number	—	—	—	—	—
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	Optional	Optional	Optional	Optional	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 180 cps	Opt.; 180 cps	Opt.; 180 cps	Opt.; 180 cps	Opt.; 180 cps
Line printer	Opt.; 240-900 lpm	Opt.; 240-900 lpm	Opt.; 240-900 lpm	Opt.; 240-900 lpm	Opt.; 240-900 lpm
Reel-to-reel tape drive	No	No	No	No	No
Cassette/cartridge tape drive	No	No	No	No	Std.; 512KB cart.
CRT	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	—	—	—	—	—
COMMUNICATIONS					
Maximum no. of lines	—	—	—	—	—
Synchronous	No	No	No	No	No
Asynchronous	Yes	Yes	Yes	Yes	Yes
Protocols supported	2780/3780	2780/3780	2780/3780	2780/3780	2780/3780
Network architecture supported	DECnet	DECnet	DECnet	DECnet	DECnet
RJE terminals emulated	2780/3780	2780/3780	2780/3780	2780/3780	2780/3780
IBM 3270 emulation	No	No	No	No	No
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	Yes	Yes	Yes	Yes	Yes
Fortran	Yes	Yes	Yes	Yes	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	DIBOL-11 (Cobol)	DIBOL-11 (Cobol)	DIBOL-11 (Cobol)	DIBOL-11 (Cobol)	DIBOL-11 (Cobol)
Multiprogramming	Yes	Yes	Yes	Yes	Yes
Max. no. of jobs run concurrently	—	—	—	—	—
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	No	No	No	No	No
Industry application areas	Business acct.	Business acct.	Business acct.	Business acct.	Business acct.
Data base management system	No	No	No	No	No
File access methods supported	Seq., index seq.	Seq., index seq.	Seq., index seq.	Sequential, ISAM	Sequential, ISAM
Software separately priced	No	No	No	No	No
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Maintenance plans available	On-site	On-site	On-site	On-site	On-site
PRICING & AVAILABILITY					
Purchase price of basic system, $	46,700	65,700	50,300	72,500	91,200
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	270	426	287	440	409
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	—	—	—	—	—
additional workstations, $	—	—	—	—	—
additional printer, $	8,350 (285 lpm)	8,350 (285 lpm)	8,350 (285 lpm)	8,350 (285 lpm)	8,350 (285 lpm)
Discounts available	OEM and volume	OEM and volume	OEM and volume	OEM and volume	OEM and volume
Date of first U.S. delivery	1981	1981	1981	1981	1981
Number installed to date	NA	NA	NA	NA	NA
COMMENTS	*Requires the Physical Address Extension memory module; includes the CTS-500 operating system	See Datasystem 522 Comments	Includes the CTS-500 operating system	Includes the CTS-500 operating system	*Requires the Physical Address extension memory module; includes the CTS-500 operating system

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MANUFACTURER AND MODEL	Digital Equipment Corp. Datasystem 548	Digital Equipment Corp. Datasystem 576	Digital Equipment Corp. Datasystem 579	Digital Systems Galaxy/3	Digital Systems Galaxy/5
WORD LENGTH, BITS	16	16	16	8 to 20	8 to 20
CPU					
Model	DEC PDP-11/44	DEC PDP-11/70	DEC PDP-11/70	Galaxy/3	Galaxy/5
Add time, microseconds	—	—	—	5 (5 digits)	5 (5 digits)
No. of I/O ports on basic sys. and max.	—	—	—	5, 15	15, 300
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	512K (8K cache)	512K (2K cache)	512K (2K cache)	96K	128K
Maximum capacity, bytes	1M*	3M*	3M*	128K	1M bytes
Increment size, bytes	256K	—	—	32K	64K
Cycle/access time, microseconds	—	—	—	0.2/0.5	0.2/0.5
MASS STORAGE					
Floppy disk (diskette) drive	No	No	No	No	No
Maximum diskette storage	—	—	—	—	—
Cartridge disk drive	Std.; 56M bytes	Std.; 67M bytes	Std.; 256M bytes	Std.; 32M bytes/drive	Optional
Pack disk drive	No	No	No	Opt.; 80M bytes	Std.; 80M bytes/drive
Fixed-head disk/drum	No	No	No	No	No
Maximum disk storage	224M bytes	536M bytes	2048M bytes	160M bytes	2400M bytes
WORKSTATIONS					
Maximum number connectable	—	—	—	15	300+
Recommended maximum number	—	—	—	15	Application depen.
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Acctg.; num. pad	Acctg.; num. pad
Workstation printer	Std.; 180 cps	Std.; 180 cps	Std.; 180 cps	Optional	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 180 cps	Std.; 180 cps	Std.; 180 cps	Optional	Optional
Line printer	Opt.; 240-900 lpm	Opt.; 240-900 lpm	Opt.; 240-900 lpm	300, 600, 900 lpm	300, 600, 900 lpm
Reel-to-reel tape drive	No	No	No	1600 bpi	1600 bpi
Cassette/cartridge tape drive	Std.; 512KB cart.	No	No	Opt./No	Opt./No
CRT	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	No	No	No	—	—
COMMUNICATIONS					
Maximum no. of lines	—	—	—	15	300
Synchronous	No	No	No	CPU to mux.*	CPU to mux.*
Asynchronous	Yes	Yes	Yes	Mux. to CRT*	Mux. to CRT*
Protocols supported	2780/3780	2780/3780	2780/3780	2741, SDLC, program.	2741, SDLC, program.
Network architecture supported	DECnet	DECnet	DECnet	Galaxy to Galaxy	Galaxy to Galaxy
RJE terminals emulated	2780/3780	2780/3780	2780/3780	None	None
IBM 3270 emulation	No	No	No	No	No
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	Yes	Yes	Yes	Yes	Yes
Fortran	Yes	Yes	Yes	No	No
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	DIBOL-11 (Cobol)	DIBOL-11 (Cobol)	DIBOL-11 (Cobol)	PL/G, LMP, FMP, WP	PL/G, LMP, FMP, WP
Multiprogramming	Yes	Yes	Yes	Yes	Yes
Max. no. of jobs run concurrently	—	—	—	Application dependent	Application dependent
Language complemented in firmware	No	No	No	Partially	Partially
Op. sys. implemented in firmware	No	No	No	Partially	Partially
General accounting packages	No	No	No	Yes	Yes
Industry application areas	Business acct.	Business acct.	Business acct.	Assoc., gen. business	Assoc., gen. business
Data base management system	No	No	No	Yes	Yes
File access methods supported	Sequential, ISAM	Sequential, ISAM	Sequential, ISAM	Rand., seq., indexed	Rand., seq., indexed
Software separately priced	No	No	No	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Contact vendor	Contact vendor	Contact vendor	3-, 5-yr.	3-, 5-yr.
Maintenance plans available	On-site	On-site	On-site	On-site contract	On-site contract
PRICING & AVAILABILITY					
Purchase price of basic system, $	86,800	145,300	154,000	49,500	89,900
Monthly rental of basic system, $	—	—	—	On request	On request
Monthly maint. price of basic system, $	504	559	672	414	781
Monthly maint. bundled with rental, $	—	—	—	Yes	Yes
Purchase price of:					
additional memory module, $	—	—	—	3,400 (32K bytes)	6,200 (64K bytes)
additional workstations, $	—	—	—	650	690
additional printer, $	8,350 (285 lpm)	8,350 (285 lpm)	8,350 (285 lpm)	8,900 (300 lpm)	12,995 (600 lpm)
Discounts available	OEM and volume	OEM and volume	OEM and volume	On request	On request
Date of first U.S. delivery	1981	1981	1981	February 1980	August 1976
Number installed to date	NA	NA	NA	3	25
COMMENTS	See Datasystem 546 Comments	See Datasystem 546 Comments	See Datasystem 546 Comments	Sys. includes CPU, 5 comm. ports, 32-meg. drive, 300-lpm printer; Galaxy integrated word processing system available in June 1982; *transmission speed of 9600 bps	Sys. includes CPU, 15 comm. ports, two 80-meg. drives, one CRT, one 600-lpm printer; Galaxy integrated word processing system available in June 1982; *trans. speed of 9600 bps

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MANUFACTURER AND MODEL	Dimis, Inc. Total 100 (10)	Dimis, Inc. Total 100 (30)	Dimis, Inc. Total 100 (70)	Display Data Corporation in*sight	Distribution Management Systems BS 11/44
WORD LENGTH, BITS	16	16	16	8	—
CPU					
Model	Modcomp Classic	Modcomp Classic	Modcomp Classic	in*sight 1634	DEC PDP-11/44
Add time, microseconds	1.0	0.3	0.2		
No. of I/O ports on basic sys. and max.	1 to 32	1 to 32	1 to 32	8, 32	—
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	128K	128K	512K	64K	512K
Maximum capacity, bytes	128K	512K	4M bytes	128K	1M
Increment size, bytes	—	128K	512K	64K	256K
Cycle/access time, microseconds	0.6/0.6	0.25/0.25	0.25/0.25	—	
MASS STORAGE					
Floppy disk (diskette) drive	Optional	Optional	Optional	No	Optional
Maximum diskette storage	—	—	—	NA	—
Cartridge disk drive	Optional	Optional	Optional	Std.; 10-40M bytes	Optional
Pack disk drive	Std.; 80M bytes/drive	Std.; 200M bytes/dr.	Std.; 300M bytes/dr.	No	Std.; 134M bytes
Fixed-head disk/drum	Optional	Optional	Optional	No	Optional
Maximum disk storage	320M bytes (4 drives)	800M bytes (4 drives)	1200M bytes (4 drives)	80M bytes	—
WORKSTATIONS					
Maximum number connectable	10	28	28	32	64
Recommended maximum number	10	28; 1st 128KB	28; 1st 512KB	24	32
Keyboard style	Typewriter	Typewriter	Typewriter	Type., num. key.	Typewriter
Workstation printer	—	—	—	Optional	Standard
INPUT/OUTPUT DEVICES					
Serial printer	Optional	Optional	Optional	Optional	Optional
Line printer	Std.; 300 lpm	Std.; 600 lpm	Std.; 600 lpm	Opt.; 150 to 1100 lpm	Standard
Reel-to-reel tape drive	Std.; 800 bpi	Std.; 800 bpi, 9-trk.	Std.; 800 bpi, 9-trk.	No	Standard
Cassette/cartridge tape drive	No	No/No	No/No	No	Optional
CRT	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 1920 char.	Std.; VT100
Other	—	—	—	No	No
COMMUNICATIONS					
Maximum no. of lines	32	32	32	32	64
Synchronous	Optional	Optional	Optional	No	Standard
Asynchronous	Std.; to 9600 bps	Std.; to 9600 bps	Std.; to 9600 bps	Std.; to 9600 bps	Standard
Protocols supported	Programmable	Programmable	Programmable	ANSI std. Async	Various
Network architecture supported	—	—	—	None	Yes
RJE terminals emulated	No	No	No	None	2780/3780
IBM 3270 emulation	No	No	No	No	Yes
SOFTWARE SUPPORT					
Cobol	No	No	No	No	Yes
RPG	No	No	No	No	No
Fortran	Yes	Yes	Yes	No	Yes
Basic	No	No	No	No	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	None	None	None	—	DEAL, ORACLE
Multiprogramming	Yes	Yes	Yes	Yes (10 partitions)	Yes
Max. no. of jobs run concurrently	255	255	255	26	—
Language complemented in firmware	No	No	No	Yes	No
Op. sys. implemented in firmware	No	No	No	Yes	No
General accounting packages	Yes	Yes	Yes	Yes	No
Industry application areas	Distribution	Distribution	Distribution	Distribution	Distribution
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Random, seq., ISAM	Seq., rand., ISAM	Seq., rand., ISAM	Random, seq., ISAM	Random, seq., ISAM
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	NA	NA	NA	35 to 85 months	Yes
Maintenance plans available	NA	NA	NA	On-site	On-site, on-call, factory, third-party
PRICING & AVAILABILITY					
Purchase price of basic system, $	141,200	209,300	276,700	29,700	150,000
Monthly rental of basic system, $	Contact vendor	NA	NA	NA	Purchase/lease only
Monthly maint. price of basic system, $	780	1,075	1,475	274	990
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	—	10,500 (128KB)	36,000 (512KB)	4,000 (64KB)	8,900 (512K bytes)
additional workstations, $	3,100	3,100*	3,100	3,700	2,290
additional printer, $	Optional	Optional	Optional	6,000 (150 lpm)	8,350 (300 lpm)
Discounts available	NA	NA	NA	Quantity	Quantity
Date of first U.S. delivery	September 1980	June 1974	December 1978	1974	December 1980
Number installed to date	6	25*	19	1300	5
COMMENTS	3 CRTs & 1 MTU std.; package includes staff and management training and conversion support	6 CRTs & 1 MTU std.; package includes staff and mgmt. training and conversion support; *includes compatible Modcomp II	10 CRTs and 2 MTUs std.; package includes staff and mgmt. training and conversion support		

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MANUFACTURER AND MODEL	Distribution Management Systems BS 11/70	Distribution Management Systems BS 11/750	Distribution Management Systems BS 11/780	Durango COLT I/710	Durango COLT II/720
WORD LENGTH, BITS	—	—	—	8	8
CPU					
Model	DEC PDP-11/70	DEC VAX 11/750	DEC VAX 11/780	Intel 8085	Intel 8085
Add time, microseconds	—	—	—	1.33 (8-bit)	1.33 (8-bit)
No. of I/O ports on basic sys. and max.	—	—	—	0, 5	0, 5
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	512K	2M	3M	65K	65K
Maximum capacity, bytes	4M	2M	8M	65K	65K
Increment size, bytes	512K	—	512K	—	—
Cycle/access time, microseconds	—	—	—	0.5/0.25	0.5/0.25
MASS STORAGE					
Floppy disk (diskette) drive	Std.; 1M bytes	—	Standard	Std.; 946K bytes	Std.; 1.892M bytes
Maximum diskette storage	—	—	—	1.892M bytes	3.784M bytes
Cartridge disk drive	Optional	Optional	Optional	No	No
Pack disk drive	Std.; 134M bytes	Std.; 134M bytes	Std.; 134M bytes	Opt.; 12-48M bytes	Opt.; 12-48M bytes
Fixed-head disk/drum	Optional	Optional	Optional	No	No
Maximum disk storage	—	—	—	50M bytes	52M bytes
WORKSTATIONS					
Maximum number connectable	64	64	64	1 (integral)	1 (integral)
Recommended maximum number	40	40	64	—	—
Keyboard style	Typewriter	Typewriter	Typewriter	Type., 10-key num.	Type., 10-key num.
Workstation printer	Standard	Standard	Standard	1, standard	1, standard
INPUT/OUTPUT DEVICES					
Serial printer	Optional	Optional	Optional	Std.; 165 cps	Std.; 165 cps
Line printer	Standard	Standard	Standard	No	No
Reel-to-reel tape drive	Standard	Standard	Standard	No	No
Cassette/cartridge tape drive	Optional	Optional	Optional	No	No
CRT	Std.; VT100	Std.; VT100	Std.; VT100	Std.; 1024/1920 ch.*	Std.; 1024/1920 ch.*
Other	No	No	No	—	—
COMMUNICATIONS					
Maximum no. of lines	64	64	64	5	5
Synchronous	Standard	Standard	Standard	Up to 4800 bps	Up to 4800 bps
Asynchronous	Standard	Standard	Standard	Up to 9600 bps	Up to 9600 bps
Protocols supported	Various	Various	Various	2780/3780	2780/3780
Network architecture supported	Yes	Yes	Yes	—	—
RJE terminals emulated	2780/3780	2780/3780	2780/3780	2780/3780	2780/3780
IBM 3270 emulation	Yes	Yes	Yes	Yes	Yes
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	CAP/CPP	CAP/CPP
RPG	No	No	No	No	No
Fortran	Yes	Yes	Yes	CP/M	CP/M
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	No	No
Other programming languages	DEAL, ORACLE	DEAL, ORACLE	DEAL, ORACLE	Pascal (CP/M)	Pascal (CP/M)
Multiprogramming	Yes	Yes	Yes	Yes, 5 partitions	Yes, 5 partitions
Max. no. of jobs run concurrently	—	—	—	5	5
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	No	No	No	Yes	Yes
Industry application areas	Distribution	Distribution	Distribution	Insurance & MRP	Insurance & MRP
Data base management system	Yes	Yes	Yes	No	No
File access methods supported	Random, seq., ISAM	Random, seq., ISAM	Random, seq., ISAM	Rand., seq., ISAM	Rand., seq., ISAM
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Yes	Yes	Yes	5-yr.	5-yr.
Maintenance plans available	On-site, on-call, factory, third-party	On-site, on-call, factory, third-party	On-site, on-call, factory, third-party	On-site & factory	On-site & factory
PRICING & AVAILABILITY					
Purchase price of basic system, $	197,000	200,000	320,000	7,950	9,950
Monthly rental of basic system, $	Purchase/lease only	Purchase/lease only	Purchase/lease only	Varies	Varies
Monthly maint. price of basic system, $	1,291	1,530	2,155	128	136
Monthly maint. bundled with rental, $	No	—	—	No	No
Purchase price of:					
additional memory module, $	10,200 (512K bytes)	—	13,800 (1M bytes)	NA**	NA**
additional workstations, $	2,290	2,290	2,290	—	—
additional printer, $	8,350 (300 lpm)	24,240 (600 lpm)	24,240 (600 lpm)	Contact vendor	Contact vendor
Discounts available	Quantity	Quantity	Quantity	Yes	Yes
Date of first U.S. delivery	April 1979	June 1981	January 1981	December 1978	July 1980
Number installed to date	8	2	6	2200	200
COMMENTS				*Program control 24 x 80 char. or 16 x 64 char. displays; **same as 810 with 5 MHz upgrade	See I/710 Comments

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MANUFACTURER AND MODEL	Durango 800XR	Durango 810	Dynabyte 5200	Dynabyte 5300	Dynabyte 5505
WORD LENGTH, BITS	8	8	—	—	—
CPU					
Model	Intel 8085	Intel 8085	Zilog Z80A	Zilog Z80A	Zilog Z80A
Add time, microseconds	1.33 (8-bit)	1.33 (8-bit)	—	—	—
No. of I/O ports on basic sys. and max.	0, 5	0, 5	3, 19	3, 19	3, 19
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	65K	65K	64K	64K	64K
Maximum capacity, bytes	196K	196K	400K	400K	400K
Increment size, bytes	65K	65K	48K or 64K	48K or 64K	64K
Cycle/access time, microseconds	0.47/0.25	0.47/0.25	0.5/0.25	0.5/0.25	0.5/0.25
MASS STORAGE					
Floppy disk (diskette) drive	Std.; 1.892M bytes	Std.; 1.892M bytes	Std.; (2) 630K bytes	Std.; (2) 2M bytes	Std.; (1) 1M bytes
Maximum diskette storage	3.784M bytes	3.784M bytes	1.2M bytes	2M bytes	1M bytes
Cartridge disk drive	No	No	—	—	Optional
Pack disk drive	Opt.; 12-48M bytes	Opt.; 12-48M bytes	—	—	NA
Fixed-head disk/drum	No	No	—	—	Std.; (1) 6-16MB
Maximum disk storage	52M bytes	52M bytes	1.2M bytes	2M bytes	61M bytes
WORKSTATIONS					
Maximum number connectable	1 (integ.); 4 (aux.)	1 (integ.); 4 (aux.)	8	8	8
Recommended maximum number	5	5	6	6	6
Keyboard style	Type., 10-key num.	Type., 10-key num.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	1, standard	1, standard	Optional	Optional	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Std.; to 200 cps*	Std.; 165 cps	Opt.; 160 cps	Opt.; 160 cps	Opt.; 160 cps
Line printer	No	No	Optional	Optional	Optional
Reel-to-reel tape drive	No	No	No	No	No
Cassette/cartridge tape drive	No	No	No	No	No
CRT	Std.; 1024/1920 ch.**	Std.; 1024/1920 ch.*	Opt.; 25 x 80 char.	Opt.; 25 x 80 char.	Opt.; 25 x 80 char.
Other	—	—	—	—	—
COMMUNICATIONS					
Maximum no. of lines	5	5	2	2	2
Synchronous	Up to 4800 bps	Up to 4800 bps	Optional	Optional	Optional
Asynchronous	Up to 9600 bps	Up to 9600 bps	Std.; to 19,200 bps	Std.; to 19,200 bps	Std.; to 19,200 bps
Protocols supported	2780/3780	2780/3780	Async, Bisync	Async, Bisync	Async, Bisync
Network architecture supported	—	—	CPNET	CPNET	CPNET
RJE terminals emulated	2780/3780	2780/3780			
IBM 3270 emulation	Yes	Yes	Optional	Optional	Optional
SOFTWARE SUPPORT					
Cobol	CAP/CPP	CAP/CPP	Yes	Yes	Yes
RPG	No	No	No	No	No
Fortran	CP/M	CP/M	Yes	Yes	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	No	No	Yes	Yes	Yes
Other programming languages	Pascal (CP/M)	Pascal (CP/M)	—	—	PL/1, Pascal
Multiprogramming	Yes, 5 partitions	Yes, 5 partitions	Yes, 8 partitions	Yes, 8 partitions	Yes, 8 partitions
Max. no. of jobs run concurrently	5	5	8	8	8
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Insurance & MRP	Insurance & MRP	—	—	—
Data base management system	No	No	Yes	Yes	Yes
File access methods supported	Rand., seq., ISAM	Rand., seq., ISAM	Random, seq., ISAM	Random, seq., ISAM	Random, seq., ISAM
Software separately priced	Yes	Yes	Yes (applications)	Yes (applications)	Yes
Technical help separately priced	Yes	Yes	No	No	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	5-yr.	5-yr.	NA	NA	NA
Maintenance plans available	On-site & factory	On-site & factory	Yes	Yes	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	13,950	11,950	3,995	4,995	6,995
Monthly rental of basic system, $	Varies	Varies	—	—	—
Monthly maint. price of basic system, $	149	136	—	—	—
Monthly maint. bundled with rental, $	No	No	—	—	—
Purchase price of:					
additional memory module, $	1,600 (64KB)	1,600 (64KB)	595 (64KB)	595 (64KB)	595 (64KB)
additional workstations, $	1,895	1,895	800	800	650
additional printer, $	Contact vendor	Contact vendor	2,000	2,000	2,000
Discounts available	Yes	Yes	30 & over	30 & over	30 & over
Date of first U.S. delivery	August 1981	August 1980	October 1978	October 1978	August 1981
Number installed to date	150	500	NA	NA	NA
COMMENTS	*Print font is user-designable; **program control 24 x 80 char. or 16 x 64 char. displays	*Program control 24 x 80 char. or 16 x 64 char. displays			

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MANUFACTURER AND MODEL	Dynabyte 5600	Dynabyte 5710	EPCOM Computer Systems 1005	EPCOM Computer Systems 1010	EPCOM Computer Systems 1020
WORD LENGTH, BITS	—	—	8	8	8
CPU					
Model	Zilog Z80A	Zilog Z80A	Zilog Z80A	Zilog Z80A	Zilog Z80A
Add time, microseconds	—	—	—	—	—
No. of I/O ports on basic sys. and max.	11, 19	3, 19	—	—	—
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	64K	64K	80K	80K	80K
Maximum capacity, bytes	400K	400K	256K	256K	256K
Increment size, bytes	48K or 64K	64K	16K/64K	16K/64K	16K/64K
Cycle/access time, microseconds	0.5/0.25	0.5/0.25	—	—	—
MASS STORAGE					
Floppy disk (diskette) drive	Std.; 1M bytes	Optional	—	Std.; (2) 500K bytes	Std.; (1) 500K bytes
Maximum diskette storage	1M bytes	—	—	1M bytes	500K bytes
Cartridge disk drive	—	Std.; 17M bytes	—	—	—
Pack disk drive	Opt.; 9-45M bytes	NA	—	—	Std.; (1) 5M bytes
Fixed-head disk/drum	—	Std.; 10-16MB	—	—	—
Maximum disk storage	46M bytes	61M bytes	—	—	5M bytes
WORKSTATIONS					
Maximum number connectable	8	8	—	—	7
Recommended maximum number	6	6	—	—	2
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	Optional	Optional	Optional	Optional	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 160 cps	Opt.; 160 cps	Optional	Opt.; 55 cps	Opt.; 55 cps
Line printer	Optional	Optional	No	No	No
Reel-to-reel tape drive	No	No	No	No	No
Cassette/cartridge tape drive	No	No	No	No	No
CRT	Opt.; 25 x 80 char.	Opt.; 25 x 80 char.	25 x 80 char.	25 x 80 char.	25 x 80 char.
Other	—	—	—	—	—
COMMUNICATIONS					
Maximum no. of lines	2	2	—	—	—
Synchronous	Optional	Optional	—	—	—
Asynchronous	Std.; to 19,200 bps	Std.; to 19,200 bps	—	—	—
Protocols supported	Async, Bisync	Async, Bisync	—	—	—
Network architecture supported	CPNET	CPNET	—	—	—
RJE terminals emulated	—	—	—	—	—
IBM 3270 emulation	Optional	Optional	—	—	—
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	No	No	No	No	No
Fortran	Yes	Yes	Yes	Yes	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	—	PL/1, Pascal	Yes	Yes	Yes
Multiprogramming	Yes, 8 partitions	Yes, 8 partitions	No	No	No
Max. no. of jobs run concurrently	8	8	1	1	1
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	—	—	—	—	—
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Random, seq., ISAM	Random, seq., ISAM	Sequential	Sequential	Sequential
Software separately priced	Yes (applications)	Yes	Yes	Yes	Yes
Technical help separately priced	No	No	—	—	—
LEASE/MAINTENANCE OPTIONS					
Lease plans available	NA	NA	NA	NA	NA
Maintenance plans available	Yes	Yes	Yes	Yes	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	8,995	8,995	3,995	5,640	11,485
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	—	—	—	—	—
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	595 (64KB)	595 (64KB)	—	—	—
additional workstations, $	800	650	—	—	—
additional printer, $	2,000	2,000	—	—	—
Discounts available	30 & over	30 & over	Quantity, 12 & over	Quantity, 12 & over	Quantity, 12 & over
Date of first U.S. delivery	July 1980	November 1981	—	—	—
Number installed to date	NA	NA	NA	NA	NA
COMMENTS					

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MANUFACTURER AND MODEL	EPCOM Computer Systems 2010	EPCOM Computer Systems 2020	Evolution Computer Systems 240	Evolution Computer Systems 260	Evolution Computer Systems 270
WORD LENGTH, BITS	8	8	16-bit instruc., 8-bit data	16-bit instruc., 8-bit data	16-bit instruc., 8-bit data
CPU					
Model	Zilog Z80B	Zilog Z80B	EVOLUTION Series II	EVOLUTION Series II	EVOLUTION Series II
Add time, microseconds	—	—	0.4 (8 bits)	0.4 (8 bits)	0.4 (8 bits)
No. of I/O ports on basic sys. and max.	—	—	4, 24	4, 32	4, 48
INTERNAL STORAGE					
Type	MOS	MOS	MOS, ECC	MOS, ECC	MOS, ECC
Capacity of basic system, bytes	64K	96K	64K	128K	256K
Maximum capacity, bytes	64K	96K	256K	512K	768K
Increment size, bytes	—	—	64K, 128K	128K	256K
Cycle/access time, microseconds	—	—	400 nano.	400 nano.	400 nano.
MASS STORAGE					
Floppy disk (diskette) drive	Std.; (2) 1M bytes	—	—	—	—
Maximum diskette storage	2M bytes	—	—	—	—
Cartridge disk drive	—	—	—	—	—
Pack disk drive	—	Std.; (1) 40MB	—	Std.; (8) 50MB	—
Fixed-head disk/drum	—	—	Std.; 33 or 66MB	—	Std.; 168M bytes
Maximum disk storage	—	40M bytes	132M bytes	400M bytes	672M bytes
WORKSTATIONS					
Maximum number connectable	—	16	24	32	48
Recommended maximum number	—	6 to 8	24	32	48
Keyboard style	Type., num. key.	Type., num. key.	Typewriter	Typewriter	Typewriter
Workstation printer	Optional	Optional	Yes	Yes	Yes
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 200 cps	Opt.; 200 cps	150 cps	150 cps	150 cps
Line printer	Opt.; 300-600 lpm	Opt.; 300-600 lpm	Opt.; 300-600 lpm	Opt.; 300-600 lpm	Opt.; 300-600 lpm
Reel-to-reel tape drive	No	No	No	Std.; 800/1600 bpi	Std.; 1600 bpi*
Cassette/cartridge tape drive	No	No	Standard	Optional (add-on)	Optional (add-on)
CRT	64 x 80 char.	64 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	—	—	—	—	—
COMMUNICATIONS					
Maximum no. of lines	—	—	24	32	48
Synchronous	—	—	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; 9600 bps
Asynchronous	—	—	Std.; 9600 bps	Std.; 9600 bps	Std.; 9600 bps
Protocols supported	—	—	Async, Bisync	Async, Bisync	Async, Bisync
Network architecture supported	—	—	No	No	No
RJE terminals emulated	—	—	2780/3780	2780/3780	2780/3780
IBM 3270 emulation	—	—	No	No	No
SOFTWARE SUPPORT					
Cobol	Yes	Yes	No	No	No
RPG	No	No	No	No	No
Fortran	Yes	Yes	No	No	No
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	Yes	Yes	Query, Proc., TCL, RPL	Query, Proc., TCL, RPL	Query, Proc., TCL, RPL
Multiprogramming	No	No	Yes	Yes	Yes
Max. no. of jobs run concurrently	1	16	32	64	64
Language complemented in firmware	No	No	Yes	Yes	Yes
Op. sys. implemented in firmware	No	No	Yes	Yes	Yes
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	—	—	Manufacturing	Manufacturing	Manufacturing
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Sequential	Seq., ISAM	Random, seq.	Random, seq.	Random, seq.
Software separately priced	Yes	Yes	Yes (applications)	Yes (applications)	Yes (applications)
Technical help separately priced	—	—	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	NA	NA	3-yr., 5-yr.	3-yr., 5-yr.	3-yr., 5-yr.
Maintenance plans available	Yes	Yes	Yes	Yes	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	11,450	21,450	36,390	55,190	80,420
Monthly rental of basic system, $	—	—	NA	NA	NA
Monthly maint. price of basic system, $	—	—	320	554	—
Monthly maint. bundled with rental, $	—	—	NA	NA	NA
Purchase price of:					
additional memory module, $	—	—	—	—	—
additional workstations, $	—	—	1,395	1,395	1,395
additional printer, $	—	—	4,000 (150 cps)	7,900 (600 lpm)	7,900 (600 lpm)
Discounts available	Quantity, 12 & over	Quantity, 12 & over	Dealer only	Dealer only	Dealer only
Date of first U.S. delivery	October 1981	December 1981	December 1980	January 1977	December 1981
Number installed to date	NA	NA	10	203	2
COMMENTS			"Jet" word processing optional; no extra peripherals needed	"Jet" word processing optional; no extra peripherals needed	*25-100 ips, start/stop streaming tape drive; "Jet" word processing optional; no extra peripherals needed

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MANUFACTURER AND MODEL	Evolution Computer Systems 280	Four-Phase IV/40	Four-Phase IV/50	Four-Phase IV/60	Four-Phase IV/65
WORD LENGTH, BITS	16-bit instruc., 8-bit data	24	24	24	24
CPU					
Model	EVOLUTION Series II	Four-Phase IV/40	Four-Phase IV/50	Four-Phase IV/60	Four-Phase IV/65
Add time, microseconds	0.4 (8 bits)	16 (word)	16 (word)	760 nano. (word)	760 nano. (word)
No. of I/O ports on basic sys. and max.	8, 64	22	30	33	41
INTERNAL STORAGE					
Type	MOS, ECC	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	256K	24K	24K	240K	288K
Maximum capacity, bytes	1024K	96K	96K	432K	480K
Increment size, bytes	256K	24K	24K	—	—
Cycle/access time, microseconds	400 nano.	2.0	2.0	0.8	0.8
MASS STORAGE					
Floppy disk (diskette) drive	—	—	Std.; 354K bytes	—	—
Maximum diskette storage	—	—	708K bytes	—	—
Cartridge disk drive	—	Std.; 2.5M bytes	Opt.; (2) 2.5M bytes	Std.; 2.5-13M bytes	Std.; (2) 2.5M bytes
Pack disk drive	Std.; (8) 200MB	No	Opt.; (4) 67.5M bytes	—	—
Fixed-head disk/drum	—	10M bytes	Opt.; (2) 10M bytes	Opt.; 10, 27, 67MB	Opt.; 10, 27, 67MB
Maximum disk storage	1600M bytes	22.5M bytes	270M bytes	80M bytes	80M bytes
WORKSTATIONS					
Maximum number connectable	64	16	24	16	24
Recommended maximum number	64	Varies	Varies	16	24
Keyboard style	Typewriter	Multiple	Multiple	Multiple	Multiple
Workstation printer	Yes	—	—	Opt.; 16	Opt.; 16
INPUT/OUTPUT DEVICES					
Serial printer	150 cps	Opt.; 55 cps	Opt.; 55 cps	55 cps	55 cps
Line printer	Opt.; 300-1200 lpm	Opt.; 120-1000 lpm	Opt.; 120-1000 lpm	120-1000 lpm	120-1000 lpm
Reel-to-reel tape drive	Std.; 800/1600 bpi	No	No	No	No
Cassette/cartridge tape drive	Optional (add-on)	No	No	No	No
CRT	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 960, 1920 char.	Std.; 1920 char.
Other	—	Opt. card reader	Opt. card reader	Opt. card reader	Opt. card reader
COMMUNICATIONS					
Maximum no. of lines	64	2	8	8	8
Synchronous	Opt.; 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps
Asynchronous	Std.; 9600 bps	Opt.; to 2400 bps	Opt. to 2400 bps	Opt. to 9600 bps	Opt.; to 9600 bps
Protocols supported	Async, Bisync	Async, Bisync	Async, Bisync	SDLC, Async, Bisync	SDLC, Async, Bisync
Network architecture supported	No	IBM SNA	IBM SNA	SNA	SNA
RJE terminals emulated	2780/3780	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP*	2780/3780, HASP*
IBM 3270 emulation	Yes	Yes	Yes	Yes	Yes
SOFTWARE SUPPORT					
Cobol	No	Yes	Yes	Yes	Yes
RPG	No	Yes	Yes	No	No
Fortran	No	No	No	No	No
Basic	Yes	No	No	No	No
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	Query, Proc., TCL, RPL	VISION	VISION	VISION	VISION
Multiprogramming	Yes	No	No	Yes, 5 partitions	Yes, 16 partitions
Max. no. of jobs run concurrently	64	1	1	5	16
Language complemented in firmware	Yes	No	No	No	No
Op. sys. implemented in firmware	Yes	No	No	No	No
General accounting packages	Yes	No	No	No	No
Industry application areas	Manufacturing	Mfg., med., ins., bank	Mfg., med., ins., bank	DDP, office auto.	DDP, office auto.
Data base management system	Yes	No	No	No	No
File access methods supported	Random, seq.	Rand., seq., indexed	Rand., seq., indexed	Rand., seq., indexed	Rand., seq., indexed
Software separately priced	Yes (applications)	No	No	No	No
Technical help separately priced	Yes	—	—	No	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	3-yr., 5-yr.	1, 2, 3 yrs., 42 mos.	1, 2, 3 yrs., 42 mos.	1, 2, 3 yrs., 42 mos.	1, 2, 3 yrs., 42 mos.
Maintenance plans available	Yes	On-site, on-call	On-site, on-call	On-site, on-call	On-site, on-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	95,940	62,100	94,470	109,170	131,480
Monthly rental of basic system, $	NA	1,510 (1-yr. lease)	2,085 (1-yr. lease)	2,255 (1-yr. lease)	2,676 (1-yr. lease)
Monthly maint. price of basic system, $	870	269	443	545	621
Monthly maint. bundled with rental, $	NA	Yes	Yes	Yes	Yes
Purchase price of:					
additional memory module, $	—	Contact vendor	Contact vendor	Contact vendor	Contact vendor
additional workstations, $	1,395	Contact vendor	Contact vendor	Contact vendor	Contact vendor
additional printer, $	7,900 (600 lpm)	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Discounts available	—	Quantity	Quantity	Quantity	Quantity
Date of first U.S. delivery	January 1981	June 1973	Fourth qtr. 1976	May 1979	May 1979
Number installed to date	56	15,000 (all systems)	15,000 (all systems)	15,000 (all systems)	15,000 (all systems)
COMMENTS	"Jet" word processing optional; no extra peripherals needed			*Also supports IBM's 3770 RJE terminal	*Also supports IBM's 3770 RJE terminal

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MANUFACTURER AND MODEL	Four-Phase IV/70	Four-Phase IV/80	Four-Phase IV/90	Four-Phase IV/95	Geac 6000 (6020)
WORD LENGTH, BITS	24	24	24	24	16
CPU					
Model	Four-Phase IV/70	Four-Phase IV/80	Four-Phase IV/90	Four-Phase IV/95	Geac 6020
Add time, microseconds	16 (word)	760 nano. (word)	760 nano. (word)	760 nano. (word)	—
No. of I/O ports on basic sys. and max.	51	47	51	47	8, 24
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	24K	288K	96K	480K	256K
Maximum capacity, bytes	96K	480K	480K	768K	640K
Increment size, bytes	24K	—	—	—	128K
Cycle/access time, microseconds	2.0	0.8	0.8	0.8	—
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; 354K bytes	—	Opt.; 354K bytes	Opt.; 354K bytes	—
Maximum diskette storage	354K bytes		354K bytes	354K bytes	—
Cartridge disk drive	Opt.; (4) 2.5M bytes	Opt.; 2.5-13M bytes	Opt.; (4) 2.5M bytes	Opt.; (4) 2.5M bytes	—
Pack disk drive	Opt.; (4) 67.5M bytes	—	Opt.; (4) 67.5M bytes	Opt.; (4) 67.5M bytes	Opt.; to 604MB
Fixed-head disk/drum	Opt.; (2) 10M bytes	Std.; (1) 27, 67M bytes	Opt.; (4) 138M bytes	Opt.; (4) 138M bytes	—
Maximum disk storage	270M bytes	82.5M bytes	552M bytes	552M bytes	—
WORKSTATIONS					
Maximum number connectable	32	32	32	32	Multi-terminal port.
Recommended maximum number	Varies	32	32	32	—
Keyboard style	Multiple	Multiple	Multiple	Multiple	Type., num. key.
Workstation printer	Opt.; 16	Opt.; 32	Opt.; 32	Opt.; 32	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 55 cps	Opt.; (32) 40-55 cps	Opt.; 55 cps	Opt.; (32) 40-55 cps	Opt.; to 300 lpm
Line printer	Opt.; 120-1000 lpm	Optional	Opt.; 120-1000 lpm	—	Opt.; to 2000 lpm
Reel-to-reel tape drive	Opt.; 12.5-37.5 lpm	No	Opt.; 12.5-37.5 ips	Opt.; (4) 37.5 ips	Up to 1600 bpi
Cassette/cartridge tape drive	No	No	No	No	—
CRT	Std.; 6 x 48 char.	Std.; 1920 char.	Std.; 960, 1920 char.	Std.; 1920 char.	Opt.; 1920 char.
Other	Opt. card reader	Card reader	Opt. card reader	Card reader	—
COMMUNICATIONS					
Maximum no. of lines	8	16	8	16	23 (multidrop)
Synchronous	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps	Optional
Asynchronous	Opt.; to 2400 bps	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; 9600 bps
Protocols supported	Async, Bisync	SDLC, Async, Bisync	Async, Bisync, SDLC	Async, Bisync, SDLC	Async, 3780
Network architecture supported	IBM SNA	IBM SNA	IBM SNA	IBM SNA	Datapac, HDLC*
RJE terminals emulated	2780/3780, HASP	2780/3780, HASP*	2780/3780, HASP*	2780/3780, HASP*	2780/3780
IBM 3270 emulation	Yes	Yes	Yes	Yes	Yes
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	No
RPG	Yes	No	Yes	No	No
Fortran	No	No	No	No	No
Basic	No	No	No	No	No
Assembler	Yes	Yes	Yes	Yes	No
Other programming languages	VISION	VISION	VISION	VISION	ZOPL, ABL, HUGO
Multiprogramming	No	Yes, 16 partitions	Yes, 16 partitions	Yes, 16 partitions	Yes
Max. no. of jobs run concurrently	1	16	16	16	Function of load
Language complemented in firmware	No	No	No	No	Yes
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	No	No	No	No	Yes
Industry application areas	Mfg., med., ins., bank	DDP, office auto.	DDP, office auto.	DDP, office auto.	Bank., lib., trans.
Data base management system	No	No	No	No	Yes
File access methods supported	Rand., seq., indexed	Rand., seq., indexed	Rand., seq., indexed	Rand., seq., indexed	Rand., seq., indexed
Software separately priced	No	No	No	No	Yes
Technical help separately priced	No	No	No	No	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	1, 2, 3 yrs., 42 mos.	1, 2, 3 yrs., 42 mos.	1, 2, 3 yrs., 42 months	1, 2, 3 yrs., 42 months	Yes
Maintenance plans available	On-site, on-call	On-site, on-call	On-site, on-call	On-site, on-call	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	149,620	217,175	163,535	241,075	59,500
Monthly rental of basic system, $	4,215 (1-yr. lease)	4,575 (1-yr. lease)	4,095 (1-yr. lease)	6,015 (1-yr. lease)	—
Monthly maint. price of basic system, $	789	995	830	1,256	540
Monthly maint. bundled with rental, $	Yes	Yes	Yes	Yes	Yes
Purchase price of:					
additional memory module, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	3,825 (128KB)
additional workstations, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	1,870
additional printer, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	4,420 (300 lpm)
Discounts available	Quantity	Quantity	Quantity	Quantity	OEM volume
Date of first U.S. delivery	February 1971	August 1981	July 1977	June 1981	July 1980
Number installed to date	15,000 (all systems)	15,000 (all systems)	15,000 (all systems)	15,000 (all systems)	48
COMMENTS		*Also supports IBM's 3770 RJE terminal	*Also supports IBM's 3770 RJE terminal	*Also supports IBM's 3770 RJE terminal	*SDLC and X.25 networks also supported

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MANUFACTURER AND MODEL	Geac 6000 (6040)	Geac 8000	Hewlett-Packard Computer Sys. Div. HP 3000 Ser. 40	Hewlett-Packard Computer Sys. Div. HP 3000 Ser. 40SX	Hewlett-Packard Computer Sys. Div. HP 3000 Ser. 44
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	Geac 6040	Geac 8000	HP 3000 Series 40	HP 3000 Ser. 40SX	HP 3000 Series 44
Add time, microseconds	—	—	0.42 (16 bits)	0.42 (16 bits)	0.15 (16 bits)
No. of I/O ports on basic sys. and max.	8, 64	8, 64	75 (max.)	75 (max.)	4
INTERNAL STORAGE					
Type	MOS	MOS	NMOS	NMOS	NMOS
Capacity of basic system, bytes	256K	384K	512K	256K	1M
Maximum capacity, bytes	1024K	2048K	2048K	2048K	4M
Increment size, bytes	128K	128K	256K, 1M	256K, 1M	512K
Cycle/access time, microseconds	—	—	0.42/0.29	0.42/0.29	0.15
MASS STORAGE					
Floppy disk (diskette) drive	—	—	—	—	Opt.; 1.2M bytes
Maximum diskette storage	—	—	—	—	1.2M bytes
Cartridge disk drive	—	—	—	—	
Pack disk drive	Opt.; to 400MB	Opt.; to 5400MB	Opt.; 50/120/404MB	Opt.; 50/120/404MB	—
Fixed-head disk/drum	Opt.; to 6750MB	Opt.; to 6750MB	Opt.; (4) 27-64 MB	Std.; (1) 27-64 MB	50M bytes
Maximum disk storage	—	—	3200M bytes	3200M bytes	6400M bytes
WORKSTATIONS					
Maximum number connectable	Multi-terminal ports	Multi-terminal ports	56	56	96
Recommended maximum number	—	—	56	56	—
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Various
Workstation printer	Optional	Optional	Optional (56)	Optional (56)	—
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; to 300 lpm	Opt.; to 300 lpm	Opt.; (4) 40-180 cps	Opt.; (4) 40-180 cps	Optional
Line printer	Opt.; to 2000 lpm	Opt.; to 2000 lpm	Opt.; 400-1000 lpm	Opt.; 400-1000 lpm	Optional (4)
Reel-to-reel tape drive	Up to 1600 bpi (2)	800/1600 bpi (4)	Opt.; 1600/6250 bpi	Opt.; 1600/6250 bpi	Std.; 1600 bpi
Cassette/cartridge tape drive	—	—	Opt.; (1) 1MB/min.	Opt.; (1) 1MB/min.	
CRT	Opt.; 1920 char.	Opt.; 1920 char.	Opt.; 24 x 80 char.	Opt.; 24 x 80 char.	Std.; (1) 1MB/min.
Other	—	—	Opt. laser printer (45 pages/min.)	Opt. laser printer (45 pages/min.)	HP 2680 laser prtr.
COMMUNICATIONS					
Maximum no. of lines	63 (multidrop)	63 (multidrop)	35	35	7
Synchronous	Optional	Optional	Opt.; 56K bps	Opt.; 56K bps	Std.; 9600 bps
Asynchronous	Opt.; 9600 bps	Opt.; 9600 bps	Std.; 9600 bps	Std.; 9600 bps	
Protocols supported	Async, 3780	Async, 3780	SDLC, Bisync, LAP-B	SDLC, Bisync, LAP-B	Bisync
Network architecture supported	Datapac, HDLC*	Datapac, HDLC*	HP-DSN, SNA, X.25	HP-DSN, SNA, X.25	HP-DSN
RJE terminals emulated	2780/3780	2780/3780	2780/3780, HASP	2780/3780, HASP	2780/3780, HASP
IBM 3270 emulation	Yes	Yes	Yes	Yes	Yes
SOFTWARE SUPPORT					
Cobol	No	No	Yes	Yes	Yes
RPG	No	No	Yes	Yes	Yes
Fortran	No	No	Yes	Yes	Yes
Basic	No	No	Yes	Yes	Yes
Assembler	No	No	No	No	No
Other programming languages	ZOPL, ABL, HUGO	ZOPL, ABL, HUGO	Pascal, SPL	Pascal, SPL	SPL
Multiprogramming	Yes	Yes	Yes, 110 partitions	Yes, 110 partitions	Yes, virtual
Max. no. of jobs run concurrently	Function of load	Function of load	110	110	No limit
Language complemented in firmware	Yes	Yes	Yes	Yes	Partially
Op. sys. implemented in firmware	No	No	Yes	Yes	Partially
General accounting packages	Yes	Yes	Yes	Yes	No
Industry application areas	Bank., lib., trans.	Bank., lib., trans.	Mfg., office auto.	Mfg., office auto.	Manufacturing
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Rand., seq., indexed	Rand., seq., indexed	DBMS, ISAM	DBMS, ISAM	Random, seq., ISAM
Software separately priced	Yes	Yes	Yes (applications)	Yes (applications)	Yes (applications)
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Yes	Yes	1 to 5 yrs. (10 plans)	1 to 5 yrs. (10 plans)	Yes, many plans
Maintenance plans available	Yes	Yes	On-site, on-call	On-site, on-call	On-site, on-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	59,500	104,480	86,615	49,459	110,344
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	540	730	620	385	—
Monthly maint. bundled with rental, $	Yes	Yes	—	—	—
Purchase price of:					
additional memory module, $	3,825 (128KB)	3,825 (128KB)	5,250 (256KB)*	5,250 (256KB)*	16,000 (1MB)
additional workstations, $	1,870	1,870	1,595+	1,595+	—
additional printer, $	4,420 (300 lpm)	4,420 (300 lpm)	3,900-25,730	3,900-25,730	—
Discounts available	OEM volume	OEM volume	OEM and volume	OEM and volume	—
Date of first U.S. delivery	July 1980	February 1978	November 1981	February 1982	First qtr. 1981
Number installed to date	48	80	NA	NA	NA
COMMENTS	Full support of redundant and linked systems. *SDLC and X.25 networks also supported	*SDLC and X.25 networks are also supported	*$16,000 for 1MB memory increment	*$16,000 for 1MB memory increment	

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MANUFACTURER AND MODEL	Hewlett-Packard Computer Sys. Div HP 3000 Ser. 64	Hewlett-Packard General Sys. Div. HP 125	Hewlett-Packard General Sys. Div. HP 250/30	Hewlett-Packard General Sys. Div. HP 250/35	Hewlett-Packard Information Networks Div. HP 300 Model 20
WORD LENGTH, BITS	32	16	16	16	16
CPU					
Model	HP 3000 Series 64	Zilog Z80A	Multi. microproc.	Multi. microproc.	HP300
Add time, microseconds	0.75	—	—	—	420 (31 digits)
No. of I/O ports on basic sys. and max.	—	—	10	—	1 (8 dev.), 2 (16 dev.)
INTERNAL STORAGE					
Type	NMOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	2M (8K cache)	64K	160K (sys.), 32K (us.)	160K (sys.), 32K (us.)	256K
Maximum capacity, bytes	8M	64K	192K (sys.), 384K (us.)	192K (sys.), 384K (us.)	1024K
Increment size, bytes	1M	—	64K, 128K	64K, 128K	128K
Cycle/access time, microseconds	0.75	—	0.83	0.83	0.5/0.43
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; 1.2M bytes	Std. 512K bytes	—	—	Std.; 1M bytes
Maximum diskette storage	1.2M bytes	2.32M bytes	—	—	1M bytes
Cartridge disk drive	—	—	—	—	Opt.; 20-80M bytes
Pack disk drive	—	—	—	—	Std.; 100M bytes
Fixed-head disk/drum	404M bytes	—	Std.; 16-19.6M bytes	Std.; 16-19.6M bytes	No
Maximum disk storage	6400M bytes	—	64M bytes	64M bytes	480M bytes
WORKSTATIONS					
Maximum number connectable	100	1	6	5	16
Recommended maximum number	—	1	—	—	Appl. dependent
Keyboard style	Various	Typewriter, num. key.	Typewriter	Typewriter	Type., num. key.
Workstation printer	—	Optional	Optional	Optional	Opt.; 16
INPUT/OUTPUT DEVICES					
Serial printer	Optional	Opt.; 120 cps	Std.; 40-180 cps	Std.; 40-180 cps	Opt.; 180 cps
Line printer	Optional	No	Optional; 400 lpm	Opt.; 400 lpm	Opt.; 400 lpm
Reel-to-reel tape drive	Std.; 1600 bpi	No	No	No	No
Cassette/cartridge tape drive	—	No	Cart.; 35K bytes/sec.	Cart.; 35K bytes/sec.	No
CRT	Std.; (1) 1MB/min.	Std.; 1920 char.	Standard	Standard	Std.; 24 x 80 char.
Other	Opt. laser printer (45 pages/min.)	Plotter/printer	8-pen color plotter; 4 RS-232-C ports	8-pen color plott	Console with horizontal/vertical scrolling
COMMUNICATIONS					
Maximum no. of lines	—	2	—	—	2
Synchronous	Std.; 9600 bps	—	Std.; 110-9600 bps	Std.; 110-9600 bps	Opt.; to 19.2K bps
Asynchronous	—	Std.; 110-9600 bps	Std.; 110-9600 bps	Std.; 110-9600 bps	Opt.; to 9600 bps
Protocols supported	Bisync, SDLC	Async	Bisync	Bisync	Bisync
Network architecture supported	HP-DSN	—	—	—	No
RJE terminals emulated	2780/3780, HASP	2780/3780	2780/3780	2780/3780	2780/3780
IBM 3270 emulation	Yes	No	No	No	No
SOFTWARE SUPPORT					
Cobol	Yes	Yes	No	No	No
RPG	Yes	No	No	No	Yes
Fortran	Yes	Yes	No	No	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	No	Yes	No	No	No
Other programming languages	Pascal, SPL	Algol, Lisp, Pascal	—	—	SL/300
Multiprogramming	Yes	—	Yes	Yes	Yes
Max. no. of jobs run concurrently	—	—	6	6	No fundamental limit
Language complemented in firmware	Yes	—	—	—	Partially
Op. sys. implemented in firmware	Yes	—	See Comments	See Comments	Partially
General accounting packages	Yes	Yes	Yes	Yes	No
Industry application areas	Manufacturing	Manuf., gen. acct.	Manuf., gen acct.	Manuf., gen. acct.	Office automation
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Random, seq., ISAM	Direct, sequential	Direct, sequential	Direct, sequential	7 methods
Software separately priced	Yes (applications)	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Yes, many plans	1 to 5 years	1 to 5 years	1 to 5 years	1 to 5 years
Maintenance plans available	On-site, on-call	On-site, on-call	On-site, on-call	On-site, on-call	On-site, on-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	221,920	7,460	22,500	25,600	50,000
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	—	—	—	—	261-329
Monthly maint. bundled with rental, $	—	—	—	—	No
Purchase price of:					
additional memory module, $	16,000 (1MB)	—	1,500 (64KB)*	1,500 (64KB)*	2,500 (128KB)
additional workstations, $	—	—	—	—	1,450+
additional printer, $	—	—	—	—	3,450 (180 cps)
Discounts available	—	OEM and volume	OEM and volume	OEM and volume	OEM and volume
Date of first U.S. delivery	1981	1981	1981	1981	June 1980
Number installed to date	NA	NA	NA	NA	NA
COMMENTS			IEEE 488 Bus channels standard; operating system in resident RAM; *$2,000 for 128K-byte memory increment	IEEE 488 Bus channels standard; operating system in resident RAM; *$2,000 for 128K-byte memory increment	Code & data segmentation; IMAGE data base management; extensive RPG II conversion aids; fully integrated package

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MANUFACTURER AND MODEL	Honeywell DPS 6/30	Honeywell DPS 6/31	Honeywell DPS 6/32	Honeywell DPS 6/34	Honeywell DPS 6/38
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	Honeywell	Honeywell	Honeywell	Honeywell	Honeywell
Add time, microseconds	1.3 (16 bits)	1.3 (16 bits)	1.3 (16 bits)	1.3 (16 bits)	1.3 (16 bits)
No. of I/O ports on basic sys. and max.	3, 13	4, 18	3, 13	3, 13	5, 32
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	128K	256K	128K	128K	256K
Maximum capacity, bytes	512K	1024K	512K	512K	1024K
Increment size, bytes	128K/256K	256K	256K	128K/256K	256K
Cycle/access time, microseconds	0.55/NA	0.55/NA	0.55/NA	0.55/NA	0.55/NA
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; (2) 512K/ 650KB	Opt.; (2) 512K/ 650KB	Opt.; (2) 512K/ 650KB	Opt.; (2) 512K/ 650KB	Opt.; (2) 512K/ 650KB
Maximum diskette storage	1.3M bytes	1.3M bytes	1.3M bytes	1.3M bytes	1.3M bytes
Cartridge disk drive	Std.; (1) 10M bytes	Std.; (1) 13MB	Std.; (1) 26M bytes	Std.; (1) 80M bytes	Opt.; (4) 80M bytes
Pack disk drive	—	—	—	—	Opt.; (4) 256MB
Fixed-head disk/drum	—	—	—	—	
Maximum disk storage	10M bytes	26M bytes	26M bytes	80M bytes	1024M bytes
WORKSTATIONS					
Maximum number connectable	8	16	8	8	24
Recommended maximum number	8	16	8	8	24
Keyboard style	Several styles	Several styles	Several styles	Several styles	Several styles
Workstation printer	Yes	Yes	Yes	Yes	Yes
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; to 160 cps	Opt.; to 160 cps	Opt.; to 160 cps	Opt.; to 160 cps	Opt.; to 160 cps
Line printer	Opt.; to 900 lpm	Opt.; to 900 lpm	Opt.; to 900 lpm	Opt.; to 900 lpm	Opt.; to 900 lpm
Reel-to-reel tape drive	—	—	—	—	—
Cassette/cartridge tape drive	—	—	—	—	—
CRT	Opt.; (8) to 2000 ch.	Opt.; (16) to 2000 ch.	Opt.; (16) to 2000 ch.	Opt.; (8) to 2000 ch.	Opt.; (24) to 2000 ch.
Other	Card reader, letter-quality printer	Card reader, letter-quality printer	Card reader, letter-quality printer	Card reader, letter-quality printer	Card reader, letter-quality printer
COMMUNICATIONS					
Maximum no. of lines	8	16	8	8	24
Synchronous	Opt.; 50-72,000 bps	Opt.; 50-72,000 bps	Opt.; 50-72,000 bps	Opt.; 50-72,000 bps	Opt.; 50-72,000 bps
Asynchronous	Std.; 50-19,200 bps	Std.; 50-19,200 bps	Std.; 50-19,200 bps	Std.; 50-19,200 bps	Std.; 50-19,200 bps
Protocols supported	Async, Sync, HDLC*	Async, Sync, HDLC*	Async, Sync, HDLC*	Async, Sync, HDLC*	Async, Sync, HDLC*
Network architecture supported	DSA, SNA	DSA, SNA	DSA, SNA	DSA, SNA	DSA, SNA
RJE terminals emulated	HASP, 2780/3780	HASP, 2780/3780	HASP, 2780/3780	HASP, 2780/3780	HASP, 2780/3780
IBM 3270 emulation	Yes	Yes	Yes	Yes	Yes
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	Yes	Yes	Yes	Yes	Yes
Fortran	Yes	Yes	Yes	Yes	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	MACRO PREPROC.	MACRO PREPROC.	MACRO PREPROC.	MACRO PREPROC.	MACRO PREPROC.
Multiprogramming	Yes	Yes	Yes	Yes	Yes
Max. no. of jobs run concurrently	No fixed limit	No fixed limit	No fixed limit	No fixed limit	No fixed limit
Language complemented in firmware	Yes	Yes	Yes	Yes	Yes
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Several, gen.-purp.	Several, gen.-purp.	Several, gen.-purp.	Several, gen.-purp.	Several, gen.-purp.
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Rand., seq., indexed	Rand., seq., indexed	Rand., seq., indexed	Rand., seq., indexed	Rand., seq., indexed
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	No	No	No	No	No
Maintenance plans available	Annual, monthly per call, factory	Annual, monthly per call, factory	Annual, monthly per call, factory	Annual, monthly per call, factory	Annual, monthly per call, factory
PRICING & AVAILABILITY					
Purchase price of basic system, $	23,000	19,500	27,500	30,000	26,500
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	1,940	2,000	2,010	2,450	1,720
Monthly maint: bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	2,400 (128KB)	4,500 (256KB)	2,400 (128KB)	2,400 (128KB)	7,000 (256KB)
additional workstations, $	1,900 up	1,900 up	1,900 up	1,900 up	1,900 up
additional printer, $	3,360 up	3,360 up	3,360 up	3,360 up	3,360 up
Discounts available	Quantity, volume	Quantity, volume	Quantity, volume	Quantity, volume	Quantity, volume
Date of first U.S. delivery	1981	1982	1981	1981	1981
Number installed to date	NA	NA	NA	NA	NA
COMMENTS	*Also supports SDLC, TTY, VIP, HASP, 2780/3780; includes direct memory addressing, segmentation, and a commercial set with decimal arithmetic	See DPS 6/30 Comments	See DPS 6/30 Comments	See DPS 6/30 Comments	See DPS 6/30 Comments

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MANUFACTURER AND MODEL	Honeywell DPS 6/48	Honeywell DPS 6/54	Honeywell DPS 6/74	Honeywell DPS 6/76	Honeywell DPS 6/92
WORD LENGTH, BITS	16	16	16	16	32
CPU					
Model	Honeywell	Honeywell	Honeywell	Honeywell	Honeywell
Add time, microseconds	1.3 (16 bits)	1.0 (16 bits)	0.7 (16 bits)	0.7 (16 bits)	0.2 (16 bits)
No. of I/O ports on basic sys. and max.	5, 48	5, 56	5, 56	5, 84	5, 84
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	256K	256K	256K	512K	1M
Maximum capacity, bytes	1M	1M	1M	2M	4M
Increment size, bytes	256K	256K	256K	256K	1M/2M
Cycle/access time, microseconds	0.55/NA	0.55/NA	0.55/NA	0.55/NA	0.55/NA
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; (6) 512K/650KB	Opt.; (6) 512K/650KB	Opt.; (6) 512K/650KB	Opt.; (6) 512K/650KB	Opt.; (6) 512K/650KB
Maximum diskette storage	3.9M bytes	3.9M bytes	3.9M bytes	3.9M bytes	3.9M bytes
Cartridge disk drive	Opt.; (4) 80M bytes	Opt.; (4) 80M bytes	Opt.; (4) 80M bytes	Opt.; (8) 80M bytes	Opt.; (8) 80M bytes
Pack disk drive	Opt.; (4) 256MB	Opt.; (4) 256MB	Opt.; (4) 256MB	Opt.; (8) 256MB	Opt.; (8) 256MB
Fixed-head disk/drum	—	—	—	—	—
Maximum disk storage	1024M bytes	1024M bytes	1024M bytes	2048M bytes	2048M bytes
WORKSTATIONS					
Maximum number connectable	32	40	40	64	64
Recommended maximum number	32	40	40	64	64
Keyboard style	Several styles	Several styles	Several styles	Several styles	Several styles
Workstation printer	Yes	Yes	Yes	Yes	Yes
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; (6) 160 cps	Opt.; (6) 160 cps	Opt.; (6) 160 cps	Opt.; (6) 160 cps	Opt.; (6) 160 cps
Line printer	Opt.; (6) 900 lpm	Opt.; (6) 900 lpm	Opt.; (6) 900 lpm	Opt.; (6) 900 lpm	Opt.; (6) 900 lpm
Reel-to-reel tape drive	Opt.; 6250 bpi/125 ips	Opt.; 6250 bpi/125 ips	Opt.; 6250 bpi/125 ips	Opt.; 6250 bpi/125 ips	Opt.; 6250 bpi/125 ips
Cassette/cartridge tape drive	—	—	—	—	—
CRT	Opt.; 2000 char.	Opt.; 2000 char.	Opt.; 2000 char.	Opt.; 2000 char.	Opt.; 2000 char.
Other	Card reader, letter-quality printer, document handler	Card reader, letter-quality printer, document handler	Card reader, letter-quality printer, document handler	Card reader, letter-quality printer, document handler	Card reader, letter-quality printer, document handler
COMMUNICATIONS					
Maximum no. of lines	32	40	40	64	64
Synchronous	Opt.; 50-72,000 bps	Opt.; 50-72,000 bps	Opt.; 50-72,000 bps	Opt.; 50-72,000 bps	Opt.; 50-72,000 bps
Asynchronous	Std.; 50-19,200 bps	Std.; 50-19,200 bps	Std.; 50-19,200 bps	Std.; 50-19,200 bps	Std.; 50-19,200 bps
Protocols supported	Async, Sync, HDLC*	Async, Sync, HDLC*	Async, Sync, HDLC*	Async, Sync, HDLC*	Async, Sync, HDLC*
Network architecture supported	DSA, SNA	DSA, SNA	DSA, SNA	DSA, SNA	DSA, SNA
RJE terminals emulated	HASP, 2780/3780	HASP, 2780/3780	HASP, 2780/3780	HASP, 2780/3780	HASP, 2780/3780
IBM 3270 emulation	Yes	Yes	Yes	Yes	Yes
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	Yes	Yes	Yes	Yes	Yes
Fortran	Yes	Yes	Yes	Yes	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	MACRO PREPROC.	MACRO PREPROC.	MACRO PREPROC.	MACRO PREPROC.	MACRO PREPROC.
Multiprogramming	Yes	Yes	Yes	Yes	Yes
Max. no. of jobs run concurrently	No fixed limit	No fixed limit	No fixed limit	No fixed limit	No fixed limit
Language complemented in firmware	Yes	Yes	Yes	Yes	Yes
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Several, gen.-purp.	Several, gen.-purp.	Several, gen.-purp.	Several, gen.-purp.	Several, gen.-purp.
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Rand., seq., indexed	Rand., seq., indexed	Rand., seq., indexed	Rand., seq., indexed	Rand., seq., indexed
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	No	No	No	No	No
Maintenance plans available	Annual, monthly per call, factory	Annual, monthly per call, factory	Annual, monthly per call, factory	Annual, monthly per call, factory	Annual, monthly per call, factory
PRICING & AVAILABILITY					
Purchase price of basic system, $	32,500	38,500	65,000	75,000	110,000
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	1,830	2,055	4,000	4,100	10,430
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	7,000 (256KB)	7,000 (256KB)	7,000 (256KB)	7,000 (256KB)	28,000 (1MB)
additional workstations, $	1,900 up	1,900 up	1,900 up	1,900 up	1,900 up
additional printer, $	3,360 up	3,360 up	3,360 up	3,360 up	3,360 up
Discounts available	Quantity, volume	Quantity, volume	Quantity, volume	Quantity, volume	Quantity, volume
Date of first U.S. delivery	1981	1981	1981	1981	1981
Number installed to date	NA	NA	NA	NA	NA
COMMENTS	*Also supports SDLC, TTY, VIP, HASP, & 2780/3780; includes all DPS 6/38 features; field-upgradeable to a 32-bit system	See DPS 6/48 Comments	*Also supports SDLC, TTY, VIP, HASP & 2780/3780; includes all DPS 6/54 features, including field-upgradeability, plus 8KB cache memory	See DPS 6/74 Comments	*Also supports SDLC, TTY, VIP, HASP, & 2780/3780; standard fast floating-point & math functions, & 32-bit Bus with 13-megabyte per sec. transfer rate

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MANUFACTURER AND MODEL	Honeywell DPS 6/96	Honeywell Series 60 Level 62	IBM Series/1 4952	IBM Series/1 4953	IBM Series/1 4955
WORD LENGTH, BITS	32	8-bit byte/16-bit word	8-bit byte/16-bit word	8-bit byte/16-bit word	8-bit byte/16-bit word
CPU					
Model	Honeywell	Honeywell CPS 2004	IBM Model 4952	IBM Model 4953	IBM Model 4955
Add time, microseconds	0.2 (16 bits)	—	NA	NA	NA
No. of I/O ports on basic sys. and max.	5, 136	6 std.; 3 opt.	5, 14	4, 13	3, 10
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	1M	96K	32K	16K/32K	16K/32K/64K/128K
Maximum capacity, bytes	16M	992K	128K	64K	64/128/256/512K
Increment size, bytes	1M/2M	32K or 128K	32K	16K, 32K	16K, 32K, 64K, 128K
Cycle/access time, microseconds	0.55/NA	1.0/0.5	—	—	—
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; (6) 512K/650KB	Std.; 256K bytes	Opt.; to 27.8M bytes	Opt.; to 27.8M bytes	Opt.; to 27.8M bytes
Maximum diskette storage	3.9M bytes	512K bytes	27.8M bytes	27.8M bytes	27.8M bytes
Cartridge disk drive	Opt.; (12) 80MB	No	See Comments	See Comments	See Comments
Pack disk drive	Opt.; (12) 256MB	2 to 6 drives	No	No	No
Fixed-head disk/drum	—	No	Opt.; to 128K bytes	Opt.; to 128K bytes	Opt.; to 128K bytes
Maximum disk storage	3072M bytes	1800M bytes	—	—	—
WORKSTATIONS					
Maximum number connectable	112	744	6 (can vary)	2 (can vary)	12 (can vary)
Recommended maximum number	112	100	6	2	12
Keyboard style	Several styles	Typewriter, num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	Yes	Optional	No	No	No
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; (6) 160 cps	Std.; 30 cps console	Opt.; 40-160 cps	Opt.; 40-160 cps	Opt.; 40-160 cps
Line printer	Opt.; (6) 900 lpm	Opt.; 100-1600 lpm	Opt.; 80-414 lpm	Opt.; 80-414 lpm	Opt.; 80-414 lpm
Reel-to-reel tape drive	Opt.; 6250 bpi/125 ips	Opt.; 10.4-60KBS	Opt.; to 12,000 bps	Opt.; to 12,000 bps	Opt.; to 12,000 bps
Cassette/cartridge tape drive	—	Cas.; opt., 700 cps	No	No	No
CRT	Opt.; 2000 char.	Opt.; 24 x 80 char.	Opt.; 24 x 80 char.	Opt.; 24 x 80 char.	Opt.; 24 x 80 char.
Other	Card reader, letter-quality printer, document handler	Optional	No	No	No
COMMUNICATIONS					
Maximum no. of lines	112	25	8	8	8
Synchronous	Opt.; 50-72,000 bps	Opt.; 19,200 bps	Opt.; to 56,000 bps	Opt.; to 56,000 bps	Opt.; to 56,000 bps
Asynchronous	Std.; 50-19,200 bps	Opt.; 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps
Protocols supported	Async, Sync, HDLC*	Bisync	Bisync, Async	Bisync, Async	Bisync, Async
Network architecture supported	DSA, SNA	TTY, ISO, BSC, VIP	System/370	System/370	System/370
RJE terminals emulated	HASP, 2780/3780	360/370, 2780	IBM 3780, HASP	IBM 3780, HASP	IBM 3780, HASP
IBM 3270 emulation	Yes	Yes	Yes	Yes	Yes
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	Yes	Yes	No	No	No
Fortran	Yes	Yes	Fortran IV	Fortran IV	Fortran IV
Basic	Yes	No	No	No	No
Assembler	Yes	No	Macro assembler	Macro assembler	Macro assembler
Other programming languages	MACRO PREPROC.	None	PL/1	PL/1	PL/1
Multiprogramming	Yes	Yes	Yes	Yes	Yes
Max. no. of jobs run concurrently	No fixed limit	15	6	2	12
Language complemented in firmware	Yes	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Several, gen.-purp.	Dist., mfg.	General-purpose	General-purpose	General-purpose
Data base management system	Yes	Yes	No	No	No
File access methods supported	Rand., seq., indexed	Seq., index, relative	Index	Index	Index
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	No	1-, 5-, 6-year	Purchase only	Purchase only	Purchase only
Maintenance plans available	Annual, monthly per call, factory	On-site, on-call, third-party, factory ret.	On-site contract	On-site contract	On-site contract
PRICING & AVAILABILITY					
Purchase price of basic system, $	130,000	33,192	5,060 (CPU only)	4,800 (CPU only)	7,465 (CPU only)
Monthly rental of basic system, $	—	799 (1-yr. lease)	Purchase only	Purchase only	Purchase only
Monthly maint. price of basic system, $	10,890	160 (processor)	26.50	80	76.50
Monthly maint. bundled with rental, $	—	Yes	—	—	—
Purchase price of:					
additional memory module, $	28,000 (1MB)	2,750 (128K)	495 (32K bytes)	1,410 (16K bytes)*	1,160 (16K bytes)*
additional workstations, $	1,900 up	—	1,385	1,385	1,385
additional printer, $	3,360 up	13,645 (450 lpm)	9,960 (80 lpm)	14,340 (235 lpm)	14,340 (235 lpm)
Discounts available	Quantity, volume	Quantity	Contact vendor	Contact vendor	Contact vendor
Date of first U.S. delivery	1981	January 1979	February 1979	November 1976	November 1976
Number installed to date	NA	Over 1,000	NA	NA	NA
COMMENTS	See DPS 6/92 Comments	Performance increase packages of 33, 78 or 90 percent optional	Up to 256M bytes non-removable disk available	Up to 256M bytes non-removable disk available; *$1,885 for 32KB memory increment	Up to 256M bytes non-removable disk available; *$1,725, $2,785, and $3,200 for 32KB, 64KB, and 128KB memory increments, respectively

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MANUFACTURER AND MODEL	IBM System/23 Datamaster	IBM System/32	IBM System/34	IBM System/38	IBM 5110 Computing System
WORD LENGTH, BITS	8-bit byte	8-bit byte	8-bit byte	8-bit byte	8-bit byte
CPU				IBM Mod. 300/400/500	
Model	IBM 5322	IBM System/32	IBM 5340		IBM 5110
Add time, microseconds	—	150 (5 digits)	68.5 (5 digits)	—	NA
No. of I/O ports on basic sys. and max.	3	—	—	8	2, variable
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	32K	16K	32K	512K	16K
Maximum capacity, bytes	128K	32K	256K	2048K	64K
Increment size, bytes	—	8K	—	—	16K
Cycle/access time, microseconds	0.975 (1 byte)	0.6/0.25	0.6	1.1, 0.6	0.53/0.33
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; 0.3M bytes	Std.; 303K bytes	Std.; 303K-1.2M bytes	Std.; 240.5K bytes	Std.; 2.4M bytes
Maximum diskette storage	6.6M bytes*	—	1.2M bytes	24M bytes	2.4M bytes
Cartridge disk drive	—	See Comments	No	No	No
Pack disk drive	—	No	No	No	No
Fixed-head disk/drum	—	No	Std.; 257.4MB	Std.; 64.5M bytes	No
Maximum disk storage	—	13.75M bytes	257.4M bytes	2285.5M bytes	—
WORKSTATIONS					
Maximum number connectable	2	—	16 local; 64 remote	80	Contact vendor
Recommended maximum number	2	—	16	—	—
Keyboard style	Type., num. key	—	Type., num. key.	Type., num. key	Type., num. key
Workstation printer	No	Optional	Optional	Std.; 2	No
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 40-160 cps	Opt.; 40, 80, 120 cps	Opt.; 40, 80, 120 cps	Opt.; 40 to 120 cps	Opt.; 80/120 cps
Line printer	No	Std.; 50-285 lpm	Opt.; 131-1280 lpm	Std.; 300-1200 lpm	No
Reel-to-reel tape drive	No	No	No	Opt.; 12.5-50 ips	No
Cassette/cartridge tape drive	No	No	No	No	Cart.; 204KB
CRT	Std.;24 x 80 char	Std.; 6 x 40 char	Opt.; 960-1920 char.	Std.; 24 x 80 char.	Std.; 16 x 64 char.
Other	No	Opt.	Opt.	Opt. punched card reader	Opt.
COMMUNICATIONS					
Maximum no. of lines	—	1	16	8	1
Synchronous	Opt.; to 4800 bps	Opt.; to 7200 bps	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps
Asynchronous	Opt.; to 4800 bps	No	No	Opt.; to 1200 bps	Opt.; to 300 bps
Protocols supported	Bisync, Async	SDLC, Bisync	SDLC, Bisync	Bisync	Bisync, Async
Network architecture supported	—	System/3, /7, /360	—	Most IBM systems	System/370
RJE terminals emulated	—	System/370	—	—	—
IBM 3270 emulation	—	No	Yes	—	No
SOFTWARE SUPPORT					
Cobol	No	No	Yes	Yes	No
RPG	No	RPG II	RPG II	Yes, RPG II	No
Fortran	No	No	Yes	No	No
Basic	Yes	No	Yes	No	Yes
Assembler	No	Macro assembler	Yes	No	No
Other programming languages	—	None	—	—	APL
Multiprogramming	No	No	Yes; 8 partitions	No	No
Max. no. of jobs run concurrently	1	—	—	—	—
Language complemented in firmware	—	No	Partially	—	Fully
Op. sys. implemented in firmware	—	Partially	Partially	—	Fully
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	General-purpose	Dist., med., mfg.	Mfg., med., dist.	General acct.	Finan. ana., stat.
Data base management system	Yes, BRADS III	No	No	Yes	No
File access methods supported	Index	Rand., seq., index	Rand., seq., index	—	Sequential
Software separately priced	Yes	Yes	Yes	Yes	Some
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Purchase only	2-yr. base/1-yr. ext.	Contact vendor	Purchase/rent only	3-month contract
Maintenance plans available	On-site contract	Contact vendor	On-site, on-call	Contact vendor	Contact vendor
PRICING & AVAILABILITY					
Purchase price of basic system, $	9,830	23,490	15,310*	59,210*	9,025 (APL ver.)
Monthly rental of basic system, $	Purchase only	899	1,078	1,828	—
Monthly maint. price of basic system, $	—	168	159	358	72.50
Monthly maint. bundled with rental, $	—	Yes	—	—	—
Purchase price of:					
additional memory module, $	—	1,770 (8K bytes)	—	—	—
additional workstations, $	—	4,240	2,260	2,260	Contact vendor
additional printer, $	2,400 (80 cps)	29,000 (77/92 cps)	9,875 (160 lpm)	16,200 (650 lpm)	2,655 (80 cps)
Discounts available	Contact vendor	Contact vendor	Education (10%)	Contact vendor	Education (10%)
Date of first U.S. delivery	July 1981	February 1975	January 1978	August 1980	February 1978
Number installed to date	NA	NA	NA	NA	NA
COMMENTS	*Dual CPU/workstation configuration	System also includes 3.2M-13.75M bytes of nonremovable disk storage	*Includes CPU, 32KB memory, one diskette drive and 8.6MB of disk storage	There are 114 submodels of the System/38; *includes CPU, 512KB of memory, and 64.5MB of disk storage	Basic version of the 5110 is available for $8,195 (16KB of memory)

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MANUFACTURER AND MODEL	IBM 5120 Computing System	IBM 5280 Distributed Data System	IBM 8100 Information System	ICL DRS 20	ICL System 25
WORD LENGTH, BITS	8-bit byte	8-bit byte	8-bit byte, 32-bit word	8	40
CPU					
Model	IBM 5120	IBM 5285, 5286, 5288	IBM 8130/8140	ICL DRS 20	ICL System 25
Add time, microseconds	NA	NA	—	—	—
No. of I/O ports on basic sys. and max.	2, variable	1, 1	1, 19	—	3, 62
INTERNAL STORAGE					
Type	MOSFET	MOS	MOSFET	MOS	MOS
Capacity of basic system, bytes	16K	32K	256K	160K	80K
Maximum capacity, bytes	64K	96K/288K	1024K	7168K	1280K
Increment size, bytes	16K	32K, 64K	128K, 256K	64K/112K/160K	80K/320K
Cycle/access time, microseconds	0.53/0.33	NA	1.5, 0.8	0.325	0.5
MASS STORAGE					
Floppy disk (diskette) drive	Std.; 2.4M bytes	Std.; 1.2M bytes	Standard	Std.; (64) 1MB	Opt.; (2) 1MB
Maximum diskette storage	4.8M bytes	9.6M bytes	985K bytes	64M bytes	2M bytes
Cartridge disk drive	No	NA	No	No	Opt.; (4) 65MB
Pack disk drive	No	NA	No	Opt.; (48) 16/27MB	Opt.; 35MB/130MB
Fixed-head disk/drum	No	NA	No	No	No
Maximum disk storage	—	NA	640M bytes	1296M bytes	590M bytes
WORKSTATIONS					
Maximum number connectable	Contact vendor	4	24	16	200
Recommended maximum number	—	4	24	16	Varies
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	99 key-qwerty	99 key-qwerty
Workstation printer	—	Opt; up to 8	Optional	Opt.; 1 per VDT	Opt.; 1 per VDT
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 80-120 cps	Opt.; 40 to 120 cps	Opt; 40 to 120 cps	Opt.; 55-180 cps	Opt.; 80-180 cps
Line printer	No	Opt.; 95 to 560 lpm	Opt; 120 to 500 lpm	Opt.; 150-600 lpm	Opt.; 150-600 lpm
Reel-to-reel tape drive	No	No	Opt.; 160KBS	Opt.; 800/1600 bpi	Opt.; 800/1600 bpi
Cassette/cartridge tape drive	No	No	No	Opt.; up to 16	Standard (2 max.)
CRT	Std.; 1024 char.	Std.; 6 x 80 char.	Opt.; 240-2560 char.	2000 char.	2000 char.
Other	Any w/RS-232-C interface	Opt.; 24 x 80-char. display	Optional	P.O.S. terminals and factory terms.	P.O.S. terminals and factory terms.
COMMUNICATIONS					
Maximum no. of lines	1	1	24	16	16
Synchronous	Opt.; to 4800 bps	Opt.; to 4800 bps	Std.; 600 to 9600 bps	Optional	Optional
Asynchronous	Opt.; to 300 bps	No	No	Optional	Optional
Protocols supported	2770, 3741	SDLC, Bisync	Bisync	BSC, SDLC, HDLC	BSC, SDLC, HDLC
Network architecture supported	Most IBM systems	System/370	SNA	ICL IPA	ICL IPA
RJE terminals emulated	2770, 3741	Yes	Most IBM systems	Yes	Yes
IBM 3270 emulation	No	No	Yes	Yes	Yes
SOFTWARE SUPPORT					
Cobol	No	Yes	Yes	Yes	Yes
RPG	No	Yes	No	No	Yes
Fortran	No	No	Yes	No	No
Basic	Yes	No	No	Yes	No
Assembler	No	Yes	Yes	No	Yes
Other programming languages	APL	No	No	Pascal	—
Multiprogramming	No	Yes	—	Yes, up to 16 part.	Yes, up to 20 part.
Max. no. of jobs run concurrently	—	8	31	16	20 MAC/50TP*
Language complemented in firmware	Fully	No	No	Yes	No
Op. sys. implemented in firmware	Fully	No	No	Yes	Partially
General accounting packages	Yes	No	No	Yes	Yes
Industry application areas	General-purpose	Dist., retail	Comm.	Retail, WP	Mftg., retail
Data base management system	No	No	Yes (DTMS)	No	No
File access methods supported	Sequential	Sequential	—	Rand., seq., indexed	Rand., seq., indexed
Software separately priced	Some	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	3-month contract	24-month contract	2 years	No	Yes
Maintenance plans available	Contact vendor	Contact vendor	On-call	On-call, depot	On-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	Contact vendor	5,730 (32KB)	27,780 (256KB)*	7,500	31,500
Monthly rental of basic system, $	—	211	905	—	787
Monthly maint. price of basic system, $	Contact vendor	44	154	72	303
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	Contact vendor	—	—	—	—
additional workstations, $	Contact vendor	2,207	Contact vendor	—	—
additional printer, $	—	4,640 (80 cps)	Contact vendor	—	—
Discounts available	Educational (10%)	Education (10%)	Contact vendor	Quantity/ISO	Quantity/ISO
Date of first U.S. delivery	February 1980	June 1980	August 1979	March 1982	December 1981
Number installed to date	NA	NA	NA	—	250 (worldwide)
COMMENTS	Enhanced version of the 5110		*The 8140 processor-based system is available for $59,730		*MAC (multiple access), TP (Transaction Processing) modes

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MANUFACTURER AND MODEL	Industrial Micro Systems 5000SX	Industrial Micro Systems 8000D	Industrial Micro Systems 8000S	Industrial Micro Systems 8000SX	Infomark DMS-I
WORD LENGTH, BITS	8-bit byte	8-bit byte	8-bit byte	8-bit byte	16
CPU					
Model	Zilog Z80A	Zilog Z80A	Zilog Z80A	Zilog Z80A	DG 8605-E
Add time, microseconds	1.0	1.0	1.0	1.0	0.7
No. of I/O ports on basic sys. and max.	5, 16	5, 16	5, 16	5, 16	5, 5
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	64K	64K	64K	64K	64K
Maximum capacity, bytes	512K	512K	512K	512K	64K
Increment size, bytes	—	—	—	—	
Cycle/access time, microseconds	—	—	—	—	0.5/0.3
MASS STORAGE					
Floppy disk (diskette) drive	Standard	Standard	Standard	Standard	Opt.; 256K bytes
Maximum diskette storage	1.6M bytes	3.6M bytes	3.6M bytes	2.4M bytes	—
Cartridge disk drive	Optional	Optional	Optional	Optional	10MB; 32MB (opt.)
Pack disk drive	Opt. (removable)	Opt. (removable)	Opt. (removable)	Opt. (removable)	Opt.; 40M bytes
Fixed-head disk/drum	—	—	—	—	Opt.; 24M bytes
Maximum disk storage	96M bytes	96M bytes	96M bytes	96M bytes	80M bytes
WORKSTATIONS					
Maximum number connectable	16	16	16	16	6
Recommended maximum number	16	16	16	16	4
Keyboard style	—	—	—	—	Type., 10-key num.
Workstation printer	Optional	Optional	Optional	Optional	Opt.; 180 cps
INPUT/OUTPUT DEVICES					
Serial printer	Optional	Optional	Optional	Optional	Opt.; 180 cps
Line printer	Optional	Optional	Optional	Optional	70 lpm*
Reel-to-reel tape drive	—	—	—	—	—
Cassette/cartridge tape drive	Optional	Optional	Optional	Optional	—
CRT	Optional	Optional	Optional	Optional	Std.; 1920 char.
Other	Parallel printer (opt.)	Parallel printer (opt.)	Parallel printer (opt.)	Parallel printer (opt.)	—
COMMUNICATIONS					
Maximum no. of lines	24	2	2	2	4
Synchronous	Optional	Optional	Optional	Optional	Opt.; 19.2K bps
Asynchronous	Std.; 9600-19.2K bps	Std.; 9600-19.2K bps	Std.; 9600-19.2K bps	Std.; 9600-19.2K bps	Std.; 19.2K bps
Protocols supported	Async	Async	Async	Async	2780/3780
Network architecture supported	Turbodos (opt.)	Turbodos (opt.)	Turbodos (opt.)	Turbodos (opt.)	—
RJE terminals emulated	—	—	—	—	2780/3780
IBM 3270 emulation	No	No	No	No	—
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	No
RPG	No	No	No	No	Yes
Fortran	Yes	Yes	Yes	Yes	No
Basic	Yes	Yes	Yes	Yes	No
Assembler	Yes	Yes	Yes	Yes	No
Other programming languages	C	C	C	C	Forms, Query
Multiprogramming	Yes	Yes	Yes	Yes	Yes
Max. no. of jobs run concurrently	16	16	16	16	7
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	—	—	—	—	Wholesale, mfg.
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Random, seq., ISAM	Random, seq., ISAM	Random, seq., ISAM	Random, seq., ISAM	Seq., ISAM
Software separately priced	Yes	Yes	Yes	Yes	No
Technical help separately priced	No	No	No	No	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	No	No	No	No	Purchase only
Maintenance plans available	—	—	—	—	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	3,000 to 12,000	3,000 to 12,000	3,000 to 12,000	3,000 to 12,000	43,900
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	—	—	—	—	—
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	—	—	—	—	—
additional workstations, $	—	—	—	—	2,500
additional printer, $	—	—	—	—	4,600
Discounts available	Dealer, OEM	Dealer, OEM	Dealer, OEM	Dealer, OEM	—
Date of first U.S. delivery	May 1979	May 1979	May 1979	May 1979	1976
Number installed to date	500	8000 (all 8000 Series)	8000 (all 8000 Series)	8000 (all 8000 Series)	65
COMMENTS	New table-top package; 5.5M-byte Winchester drive available	Desktop version; 10-, 20-, 40-mega-byte Winchester drives are avail-able	Lowboy version; 10-, 20-, 40-mega-byte Winchester drives are avail-able	New table-top version; 10-, 20-, 40-megabyte Winchester drives are available	Basic system price includes hardware, application software, installation, and training; *125- to 900-lpm printers are optional

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MANUFACTURER AND MODEL	Infomark DMS-II	Infomark DMS-III	Infotecs Control Center II	Infotecs IMP	Lazor Systems L-10 "The Retailer"
WORD LENGTH, BITS	16	16	12	12	16
CPU					
Model	DG 8608-E	DG 8608-E	—	IMP-1	Intel 8086
Add time, microseconds	0.7	0.7	31	39 (7 digits)	1-2 (5 digits)
No. of I/O ports on basic sys. and max.	9, 17	17, 25	4, 64	4, 5	4, 16
INTERNAL STORAGE					
Type	MOS ECC	MOS ECC	MOS	MOS	MOS
Capacity of basic system, bytes	128K	256K	64K	32K	128K
Maximum capacity, bytes	256K	512K	1024K	32K	1M
Increment size, bytes	128K	256K	32K	—	64K, 128K
Cycle/access time, microseconds	0.5/0.3	0.5/0.3	0.5/0.2	0.5/0.2	0.6/0.2
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; 256K bytes	Opt.; 256K bytes	Opt.; 1.9-15.2M bytes	Std.; 3.8M bytes	Standard
Maximum diskette storage	—	—	—	—	2.4M bytes
Cartridge disk drive	32MB; 64MB (opt.)	—	Opt.; 34-808M bytes	No	Opt.; (4) 96M bytes
Pack disk drive	Opt.; (2) 40MB	40MB; 80MB (opt.)	—	No	No
Fixed-head disk/drum	Opt.; (2) 24MB	80MB; 160MB (opt.)	—	No	No
Maximum disk storage	160M bytes	320M bytes	—	—	384M bytes
WORKSTATIONS					
Maximum number connectable	16	24	16	—	15
Recommended maximum number	12	24	16	—	15
Keyboard style	Type., 10-key num.	Type., 10-key num.	Type., num. key.	Type., num. key.	Variable
Workstation printer	Opt.; 180 cps	Opt.; 180 cps	Optional	—	—
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; (4) 180 cps	Opt.; (8) 180 cps	Opt.; 55-340 cps	Std.; 200 cps	Std.; 150 cps
Line printer	300 lpm*	600 lpm; 900 lpm (opt.)	Opt.; 300-600 lpm	No	Opt.; (2) 300 lpm
Reel-to-reel tape drive	Opt.; 25 ips	Opt.; 25 ips	—	No	Optional
Cassette/cartridge tape drive	—	—	—	No	Optional
CRT	Std.; 1920 char.	Std.; 1920 char.	Std.; 24 x 80 char.	Std.; 24 x 28 char.	Opt.; 1920 char.
Other	—	—	Any w/RS-232-C int.	No	Opt.; POS cash register*
COMMUNICATIONS					
Maximum no. of lines	16	24	16	1	16
Synchronous	Opt.; 19.2K bps	Opt.; 19.2K bps	Std.; 300-19,200 bps	No	—
Asynchronous	Std.; 19.2K bps	Std.; 19.2K bps	Std.; 300-19,200 bps	Opt.; to 2400 bps	Std.; 110-19,200 bps
Protocols supported	2780/3780	2780/3780	—	None	Optional
Network architecture supported	—	—	—	—	—
RJE terminals emulated	2780/3780	2780/3780	—	—	—
IBM 3270 emulation	—	—	—	—	No
SOFTWARE SUPPORT					
Cobol	No	No	No	No	Yes
RPG	Yes	Yes	No	No	No
Fortran	No	No	No	No	No
Basic	No	No	No	No	Yes
Assembler	No	No	Yes	No	No
Other programming languages	Forms, Query	Forms, Query	HIBOL	HIBOL	—
Multiprogramming	Yes	Yes	Yes, 16 partitions	No	Yes, 15 partitions
Max. no. of jobs run concurrently	18	26	16	—	15
Language complemented in firmware	No	No	Yes	No	No
Op. sys. implemented in firmware	No	No	Some	No	Partially
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Wholesale, mfg.	Wholesale, mfg.	Acctg., insurance	Accounting	Retail, others
Data base management system	Yes	Yes	Yes	No	No
File access methods supported	Seq., ISAM	Seq., ISAM	Random, seq., ISAM	Rand., seq., index	Seq., random, ISAM
Software separately priced	No	No	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Purchase only	Purchase only	Contact vendor	Contact vendor	Third-party
Maintenance plans available	Yes	Yes	—	—	Contract, on-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	67,000	113,300	6,995	7,995	15,050
Monthly rental of basic system, $	—	—	Contact vendor	Contact vendor	Third-party dep.
Monthly maint. price of basic system, $	—	—	—	—	150
Monthly maint. bundled with rental, $	—	—	—	—	Available
Purchase price of:					
additional memory module, $	Contact vendor	Contact vendor	—	—	2,400 (128KB)
additional workstations, $	2,500	2,500	—	—	2,000
additional printer, $	4,600	4,600	—	—	3,000
Discounts available	—	—	—	—	Yes, to dealers
Date of first U.S. delivery	1976	1976	April 1980	September 1977	August 1980
Number installed to date	110	40	Over 1000	Over 1000	NA
COMMENTS	Basic system price includes hardware, application software installation, and training; *600- and 900-lpm printers are optional	Basic system price includes hardware, application software, installation, and training	Programs compatible with DEC PDP-8; complete systems and software sold & serviced nationwide by Infotecs' dealers	Programs compatible with DEC PDP-8; complete systems and software are sold and serviced by Infotecs' dealers	*"The Retailer" is a turnkey cash register/data collection and inventory control system; other applications available

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MANUFACTURER AND MODEL	Lazor Systems L-30 "The Retailer"	Logical Business Machines ADAM	Logical Business Machines DAVID	Logical Business Machines GOLIATH	Logical Business Machines TINA
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	Intel 8086	BIT-SLICE	Intel 8086	Intel 8086	LOMAC-prop.
Add time, microseconds	1-2 (5 digits)	—	—	NA	NA
No. of I/O ports on basic sys. and max.	4, 16	—	—	20	1
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	128K	32K	64K	64K	48K
Maximum capacity, bytes	1M	64K	64K	256K	64K
Increment size, bytes	64K	32K	—	64K	NA
Cycle/access time, microseconds	0.6/0.2	0.17/0.50	0.1/0.5	0.1/0.5	0.17/0.50
MASS STORAGE					
Floppy disk (diskette) drive	Standard	Opt.; 250K bytes	Std.; 1.25M bytes	—	Std.; 5M bytes
Maximum diskette storage	2.4M bytes	—	1.25M bytes	—	—
Cartridge disk drive	Std.; (1) 20M bytes	Std.; 10.6M bytes	—	Std.; 10M bytes	—
Pack disk drive	No	—	—	Std.; 10M bytes	—
Fixed-head disk/drum	No	—	—	—	—
Maximum disk storage	40M bytes	10.6M bytes	—	55M bytes	—
WORKSTATIONS					
Maximum number connectable	15	—	—	20	—
Recommended maximum number	15	—	—	20	—
Keyboard style	Variable	Type., 10-dig. num.	Type., 10-dig. num.	Type., 10-dig. num.	Type., 10-dig. num.
Workstation printer	—	—	—	—	—
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; (6) 150 cps	Std.; 165 cps	Std.; 110 cps	NA	Std.; 150 cps
Line printer	Opt.; (2) 300 lpm	Opt.; 200 lpm	—	NA	—
Reel-to-reel tape drive	Optional	—	—	—	—
Cassette/cartridge tape drive	Optional	—	—	—	—
CRT	Opt.; 1920 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	Opt.; POS cash register*	—	—	—	—
COMMUNICATIONS					
Maximum no. of lines	16	—	1	20	1
Synchronous	—	—	Standard	—	—
Asynchronous	Std.; 110-19,200 bps	—	Standard	Standard	Standard
Protocols supported	Optional	NA	—	—	—
Network architecture supported	—	—	—	Yes	Yes
RJE terminals emulated	—	—	—	—	—
IBM 3270 emulation	No	—	—	—	—
SOFTWARE SUPPORT					
Cobol	Yes	—	—	—	—
RPG	No	—	—	—	—
Fortran	No	—	—	—	—
Basic	Yes	—	—	—	—
Assembler	No	—	—	—	—
Other programming languages	—	Natural English	Natural English	Natural English	Natural English
Multiprogramming	Yes, 15 partitions	—	—	—	—
Max. no. of jobs run concurrently	15	—	—	—	—
Language complemented in firmware	No	Yes	Yes	Yes	Yes
Op. sys. implemented in firmware	Partially	NA	NA	NA	NA
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Retail, others	All	All	All	All
Data base management system	No	—	—	—	—
File access methods supported	Seq., random, ISAM	NA	NA	NA	NA
Software separately priced	Yes	No	No	No	No
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Third-party	Contact dealer	Contact dealer	Contact dealer	Contact dealer
Maintenance plans available	Contract, on-call	Yes	Yes	Yes	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	20,575	Contact dealer	Contact dealer	Contact dealer	Contact dealer
Monthly rental of basic system, $	Third-party dep.	Contact dealer	Contact dealer	Contact dealer	Contact dealer
Monthly maint. price of basic system, $	195	—	—	—	—
Monthly maint. bundled with rental, $	Available	—	—	—	—
Purchase price of:					
additional memory module, $	2,400 (128KB)	Contact dealer	—	3,117	—
additional workstations, $	2,000	—	—	—	—
additional printer, $	3,000	—	—	—	—
Discounts available	Yes, to dealers	Dealer	Dealer	Dealer	Dealer
Date of first U.S. delivery	August 1980	April 1975	December 1980	November 1980	September 1978
Number installed to date	NA	Over 1000	Over 1000	Over 1000	Over 2500
COMMENTS	See L-10 Comments	Unique natural language program-ming; no compiler or assemblers	Unique natural language program-ming; no compiler or assemblers	Unique natural language program-ming; no compiler or assemblers	Unique natural language program-ming; no compiler or assemblers

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MANUFACTURER AND MODEL	MAI/Basic Four Basic Four/S80	MAI/Basic Four System 210	MAI/Basic Four System 510	MAI/Basic Four System 610	MAI/Basic Four System 730
WORD LENGTH, BITS	8-bit byte	8-bit byte	8-bit byte	8-bit byte	8-bit byte
CPU					
Model	Zilog Z80A	BFC 1325	BFC 1345	BFC 1345	BFC 1350
Add time, microseconds	4.0	7.4	7.4	7.4	3
No. of I/O ports on basic sys. and max.	4	2, 16	8, 16	8, 16	8, 32
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	64K	64K	64K	64K	96K
Maximum capacity, bytes	64K	256K	256K	256K	512K
Increment size, bytes	—	32K	32K, 64K, 128K	32K, 64K, 128K	32K, 64K, 128K
Cycle/access time, microseconds	0.5/0.5	0.6/0.4	0.6/0.4	0.6/0.4	0.6/0.4
MASS STORAGE					
Floppy disk (diskette) drive	Std.; (1) 1.2MB	No	No	No	No
Maximum diskette storage	2.4M bytes	—	—	—	—
Cartridge disk drive	No	No	No	Standard	No
Pack disk drive	No	No	Std.; 20M bytes	Std.; 35M bytes	Std.; 150M bytes
Fixed-head disk/drum	Std.; 5M bytes	Std.; 10M bytes	No	No	No
Maximum disk storage	17M bytes	57.4M bytes	300M bytes	300M bytes	600M bytes
WORKSTATIONS					
Maximum number connectable	4	16	16	16	32
Recommended maximum number	—	—	—	—	—
Keyboard style	Type., 10-key num.	Type., 10-key num.	Type., 10-key num.	Type., 10-key num.	Type., 10-key num.
Workstation printer	Std.; 80 cps	Std.; 80 cps	Std.; 120 cps	Std.; 150 lpm	Std.; 300 lpm
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 80 cps	Std.; 80 cps	Std.; 120 cps	Std.; 150 lpm	Opt.; 80, 120 cps
Line printer	Opt.; 150-300 lpm	Opt.; 150-600 lpm	Opt.; 150-600 lpm	Opt.; 300-600 lpm	Std.; 300 lpm
Reel-to-reel tape drive	No	Opt.; 800/1600 bpi	Opt.; 800/1600 bpi	Opt.; 800/1600 bpi	Opt.; 800/1600 bpi
Cassette/cartridge tape drive	No	Cart.; 9.2M bytes	Cart.; 9.2M bytes	Cart.; 9.2M bytes	Cart.; 9.2M bytes
CRT	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	Opt. CRT (64 x 80 char.)	Opt. CRT (64 x 80 char.)	Opt. CRT (64 x 80 char.)	Opt. CRT (64 x 80 char.)	Opt. CRT (64 x 80 char.)
COMMUNICATIONS					
Maximum no. of lines	6	8	16	16	32
Synchronous	Opt.; 1200-9600 bps	Opt.; 9600 bps	Opt. 9600 bps	Opt. 9600 bps	Opt. 9600 bps
Asynchronous	Opt.; 1200-9600 bps	Std.; 9600 bps	Opt.; 9600 bps	Std.; 9600 bps	Std.; 9600 bps
Protocols supported	Async, Bisync	Bisync	Bisync	Bisync	Bisync
Network architecture supported	No	No	No	No	No
RJE terminals emulated	2770/2780/3770/*	2770/2780/3770/*	2770/2780/3770/*	2770/2780/3770/*	2770/2780/3770/*
IBM 3270 emulation	Yes	Yes	Yes	Yes	Yes
SOFTWARE SUPPORT					
Cobol	No	No	No	No	No
RPG	No	No	No	No	No
Fortran	No	No	No	No	No
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	No	No	No	No	No
Other programming languages	—	—	—	—	—
Multiprogramming	Yes, 4 partitions	Yes, 8 partitions	Yes, 8 partitions	Yes, 18 partitions	Yes, 36 partitions
Max. no. of jobs run concurrently	4	12	12	24	40
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	Partially	Partially	Partially	Partially	Partially
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Gen. business, med.	Gen. business, med.	Gen. business, med.	Gen. business, med.	Gen. business, med.
Data base management system	No	No	No	No	No
File access methods supported	Seq., random	Seq., random	Seq., random	Seq., random	Seq., random
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Maintenance plans available	Third-party	Third-party	Third-party	Third-party	Third-party
PRICING & AVAILABILITY					
Purchase price of basic system, $	15,990	25,740	50,360	58,695	98,630
Monthly rental of basic system, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Monthly maint. price of basic system, $	185	270	437	459	771
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	—	2,375 (32KB)	2,375 (32K bytes)	2,375 (32K bytes)	2,375 (32K bytes)
additional workstations, $	9,650	6,912	6,912	6,912	6,912
additional printer, $	5,950 (120 cps)	8,300 (150 lpm)	12,500 (300 lpm)	12,500 (300 lpm)	18,975 (600 lpm)
Discounts available	NA	NA	NA	NA	NA
Date of first U.S. delivery	October 1980	July 1981	1980	1978	1978
Number installed to date	13,000 (all models)	13,000 (all models)	13,000 (all models)	13,000 (all models)	13,000 (all models)
COMMENTS	*Also emulates IBM's 3780 RJE terminal	*Also emulates IBM's 3780 RJE terminal	*Also emulates IBM's 3780 RJE terminal	*Also emulates IBM's 3780 RJE terminal	*Also emulates IBM's 3780 RJE terminal

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MANUFACTURER AND MODEL	MCM Computers Ltd. POWER	Mercator Business Systems System 3000	Mercator Business Systems System 4000	Mercator Business Systems System 5000	MicroFive MICROSTAR I
WORD LENGTH, BITS	8	16	16	16	8
CPU					
Model	MCM AMD 2901	Intel 8088	Intel 8086	Intel 8086	Intel 8085
Add time, microseconds	—	—	—	—	1 (8 bits)
No. of I/O ports on basic sys. and max.	2, 4	1, 4	1, 8	1, 16	3
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	64K	64K	128K	256K	64K
Maximum capacity, bytes	64K	512K	1M	1M	64K
Increment size, bytes	—	64K	128K	128K	—
Cycle/access time, microseconds	—	200 nano.	200 nano.	200 nano.	1 ms./200 ns.
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; up to 4M bytes	No	No	No	Std.; (2) 1.2M bytes
Maximum diskette storage	—	—	—	—	(4) 1.2M bytes
Cartridge disk drive	—	—	—	—	—
Pack disk drive	—	Std.; 10MB (20MB)	Std.; 10MB (20MB)	Std.; 80M bytes	—
Fixed-head disk/drum	—	—	—	—	Opt.; 20M bytes
Maximum disk storage	30M bytes	240M bytes	240M bytes	600M bytes	20M bytes
WORKSTATIONS					
Maximum number connectable	8	4	8	16	3
Recommended maximum number	8	4	8	16	2
Keyboard style	Type., num. key.	Typewriter	Typewriter	Typewriter	—
Workstation printer	—	Optional	Optional	Optional	Yes
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 45-180 cps	Std.; 160 cps	Std.; 160 cps	Std.; 160 cps	Opt.; 160 cps
Line printer	Opt.; 300 lpm	Opt.; 300 lpm	Opt.; 300 lpm	Opt.; 300 lpm	Opt.; 300 lpm
Reel-to-reel tape drive	—	Optional	Optional	Optional	No
Cassette/cartridge tape drive	—	Standard	Standard	Standard	No
CRT	Std.; 2016 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	Opt.; 1920 char.
Other					
COMMUNICATIONS					
Maximum no. of lines	2	4	8	16	2
Synchronous	Opt.; to 19.2K bps	Optional	Optional	Optional	—
Asynchronous	Std.; to 300 bps	Optional	Optional	Optional	Std.; 9600 bps
Protocols supported	2780	Bisync	Bisync	Bisync	—
Network architecture supported	—	—	—	—	—
RJE terminals emulated	—	2780/3780, SDLC	2780/3780	2780/3780	—
IBM 3270 emulation	—	Optional	Optional	Optional	No
SOFTWARE SUPPORT					
Cobol	No	Yes	Yes	Yes	Yes
RPG	No	No	No	No	No
Fortran	No	Yes	Yes	Yes	No
Basic	No	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	No
Other programming languages	APL	Pascal	Pascal	Pascal	Yes
Multiprogramming	No	Yes, 4 partitions	Yes, 8 partitions	Yes, 16 partitions	Yes, 4 partitions
Max. no. of jobs run concurrently	8	—	—	—	4
Language complemented in firmware	Yes	No	No	No	No
Op. sys. implemented in firmware	Yes	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Travel, corporate	Distribution	Distribution	Distribution	See Comments
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	—	Random., seq., ISAM	Random, seq., ISAM	Random, seq., ISAM	Direct, seq., ISAM
Software separately priced	Yes	No	No	No	Yes
Technical help separately priced	—	No	No	No	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	No	3 to 5 years	3 to 5 years	3 to 5 years	Contact dealer
Maintenance plans available	1-year	National mainte-nance program	National mainte-nance program	National main-tenance program	On-site, dealer, third-party
PRICING & AVAILABILITY					
Purchase price of basic system, $	20,000	19,000	30,200	35,000	7,085
Monthly rental of basic system, $	—	—	—	—	NA
Monthly maint. price of basic system, $	—	—	—	—	NA
Monthly maint. bundled with rental, $	—	—	—	—	NA
Purchase price of:					
additional memory module, $	—	—	—	—	NA
additional workstations, $	—	1,900	1,900	1,900	1,500
additional printer, $	—	—	—	—	NA
Discounts available	OEM	Consult factory	Consult factory	Consult factory	Quantity
Date of first U.S. delivery	1975	April 1981	1980	January 1982	1978
Number installed to date	700	NA	NA	NA	Over 2000 (all models)
COMMENTS					Application areas include florist, service station, travel agency, medical, client ac-counting, property management, and financial planning

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MANUFACTURER AND MODEL	MicroFive MICROSTAR II	MicroFive Series 3000	MicroDaSys, Inc. 68K MiniFrame	Midwest Scientific Instruments System 1	Midwest Scientific Instruments System 2
WORD LENGTH, BITS	16	16	16	8-bit byte	8-bit byte
CPU					
Model	Intel 8086	Intel 8086	Motorola 68000	MSI-6800W	MSI-6816W
Add time, microseconds	0.6 (16 bits)	0.6 (16 bits)	—	—	—
No. of I/O ports on basic sys. and max.	5	5, 11	6 (basic)	2, 7	7
INTERNAL STORAGE					
Type	MOS	MOS	MOS	RAM, MOS	RAM, MOS
Capacity of basic system, bytes	128K	128K	256K	16K	24K
Maximum capacity, bytes	384K	1028K	2M	256K	256K
Increment size, bytes	—	—	256K	8K, 16K, 64K	8K, 16K, 64K
Cycle/access time, microseconds	1 ms./200 ns.	1 ms./200 ns.	70 nano.	0.5	0.5
MASS STORAGE					
Floppy disk (diskette) drive	Std.; (2) 1.2M bytes	Std.; (1) 1.2M bytes	Std.; 1M bytes	—	Std.; 315K bytes
Maximum diskette storage	(4) 1.2M bytes	(2) 1.2M bytes	2M bytes	—	—
Cartridge disk drive	—	—	Optional	—	—
Pack disk drive	—	—	—	—	—
Fixed-head disk/drum	Opt.; 20M bytes	Opt.; 10-34M bytes	Optional	—	—
Maximum disk storage	20M bytes	54M bytes	No set limit	—	—
WORKSTATIONS					
Maximum number connectable	5	11	32	1	1
Recommended maximum number	4	10	6	1	1
Keyboard style	—	—	—	Optional	Optional
Workstation printer	Yes	Yes	Optional	—	—
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 160 cps	Opt.; 160 cps	Optional	—	—
Line printer	Opt.; 300 lpm	Opt.; 300 lpm	Optional	—	—
Reel-to-reel tape drive	No	No	Optional	—	—
Cassette/cartridge tape drive	No	Optional	Optional	Audio cassette	Audio cassette
CRT	Opt.; 1920 char.	Opt.; 1920 char.	Optional	—	—
Other	—	—	—	—	—
COMMUNICATIONS					
Maximum no. of lines	4	10	Over 1000	—	—
Synchronous	—	—	Optional	—	—
Asynchronous	Std.; 19,200 bps	Std.; 19,200 bps	Std.; 500K bps	—	—
Protocols supported	—	—	Optional	—	—
Network architecture supported	—	—	Yes	—	—
RJE terminals emulated	—	—	Optional	—	—
IBM 3270 emulation	No	No	Optional	No	No
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	No	No
RPG	No	No	Tentative	No	No
Fortran	No	No	Yes	No	No
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	No	No	Yes	Yes	Yes
Other programming languages	No	No	Yes	MSI Basic inter.	MSI Basic inter.
Multiprogramming	Yes, 11 partitions	Yes, 11 partitions	Yes, 8 partitions	No	No
Max. no. of jobs run concurrently	11	11	32	1	1
Language complemented in firmware	No	No	No	Yes	Yes
Op. sys. implemented in firmware	No	No	No	Yes	Yes
General accounting packages	Yes	Yes	Yes (2nd qtr. 1982)	No	No
Industry application areas	See Comments	See Comments	Acct., inventory	Process control	Process control
Data base management system	Yes	Yes	Yes	No	Yes
File access methods supported	Direct, seq., ISAM	Direct, seq., ISAM	Seq., rand., ISAM	—	—
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	No	No	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Contact dealer	Contact dealer	NA	Purchase only	Purchase only
Maintenance plans available	On-site, dealer, third-party	On-site, dealer, third-party	Yes	Time & material	Time & material
PRICING & AVAILABILITY					
Purchase price of basic system, $	10,835	15,415	8,995	1,860	4,905
Monthly rental of basic system, $	NA	NA	NA	—	—
Monthly maint. price of basic system, $	NA	NA	NA	—	—
Monthly maint. bundled with rental, $	NA	NA	NA	—	—
Purchase price of:					
additional memory module, $	NA	NA	1,000 (256KB)	335, 495, 995 (64K)	335, 495, 995 (64K)
additional workstations, $	1,500	1,500	—	—	—
additional printer, $	NA	NA	—	—	—
Discounts available	Quantity	Quantity	Quantity	Dealers	Dealers
Date of first U.S. delivery	1980	1981	October 1981	NA	NA
Number installed to date	Over 2000 (all models)	Over 2000 (all models)	NA	NA	NA
COMMENTS	See MICROSTAR I Comments	See MICROSTAR I Comments		Employs the MSI 6800 Computer System, which can be expanded by the addition of memory & disk storage devices	Upgradeable by the addition of more memory and larger-capacity disk drives

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MANUFACTURER AND MODEL	Midwest Scientific Instruments System 3	Midwest Scientific Instruments System 4	Midwest Scientific Instruments System 4B	Midwest Scientific Instruments System 7	Midwest Scientific Instruments System 8
WORD LENGTH, BITS	8-bit byte	8-bit byte	8-bit byte	8-bit byte	8-bit byte
CPU					
Model	MSI-6816W	MSI-6816W	MSI-6864W	MSI-6800A	MSI-6800
Add time, microseconds	—	—	—	—	—
No. of I/O ports on basic sys. and max.	7	7	7	7	7
INTERNAL STORAGE					
Type	RAM, MOS	RAM, MOS	Dynamic MOS	Dynamic MOS	Dynamic MOS
Capacity of basic system, bytes	32K	56K	104K	40K	56K
Maximum capacity, bytes	256K	256K	256K	256K	256K
Increment size, bytes	8K, 16K, 64K	8K, 16K, 64K	8K, 64K	64K	64K
Cycle/access time, microseconds	0.5	0.5	0.5	0.5	0.5
MASS STORAGE					
Floppy disk (diskette) drive	Std.; 630K bytes	Std.; 630K bytes	Std.; 630K bytes	Standard 315K bytes	Optional
Maximum diskette storage	—	—	—		
Cartridge disk drive	—	Opt.; (4) 10M bytes	Opt.; (4) 10M bytes	Opt.; 10M bytes	Std.; 10M bytes
Pack disk drive	—	—	—	—	—
Fixed-head disk/drum	—	—	—	—	—
Maximum disk storage	—	40M bytes	40M bytes	40M bytes	40M bytes
WORKSTATIONS					
Maximum number connectable	1	1	4	4	4
Recommended maximum number	1	1	4	4	4
Keyboard style	Optional	Optional	Optional	Optional	Optional
Workstation printer	—	—	—	Optional	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 150 cps	Opt.; 150 cps	Opt.; 150 cps	Opt.; 150 cps	Opt.; 150 cps
Line printer	No	Opt.; 600 lpm	Opt.; 600 lpm	Opt.; 600 lpm	Opt.; 600 lpm
Reel-to-reel tape drive	No	No	Optional	—	—
Cassette/cartridge tape drive	No	No	No	—	—
CRT	Opt.; 1600 char.	Opt.; 1600 char.	Std.; 1600 char.	Opt.; 1600 char.	Opt.; 1600 char.
Other	RS-232-C-compatible devices	RS-232-C-compatible devices	RS-232-C-compatible; up to 4 CRTs	Modems	Modems
COMMUNICATIONS					
Maximum no. of lines	—	—	—	1	1
Synchronous	—	—	—	Opt.; up to 1200 bps	Opt.; up to 1200 bps
Asynchronous	—	1200 bps	1200 bps	Opt.; up to 1200 bps	Opt.; up to 1200 bps
Protocols supported	—	ANSCII	ANSCII	ANSCII	—
Network architecture supported	—	—	—	—	—
RJE terminals emulated	—	—	—	—	—
IBM 3270 emulation	No	No	No	—	—
SOFTWARE SUPPORT					
Cobol	No	No	No	No	No
RPG	No	No	No	No	No
Fortran	No	No	No	No	No
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	SD comp., ASM, Ed.	MSI Basic, Flex	MSI Bas., Flex, ASM	CGL	CGL
Multiprogramming	No	No	Yes, 4 partitions	No	No
Max. no. of jobs run concurrently	1	1	4	4	4
Language complemented in firmware	Yes	Yes	Yes	Yes	Yes
Op. sys. implemented in firmware	Yes	Yes	Yes	Yes	Yes
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Small bus. acct.	Business acct.	Business acct.	Process control	Small mfg. bus.
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Random, seq.	—	Random, seq.	Random, seq.	Random, seq.
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	No	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Purchase only	Purchase only	Third-party	Third-party	Third-party
Maintenance plans available	Time & material	Time & material	Yes	Yes	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	6,571	8,369	14,609	8,037	16,503
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	—	Contact vendor	Contact vendor	—	—
Monthly maint. bundled with rental, $	—	Contact vendor	Contact vendor	—	—
Purchase price of:					
additional memory module, $	495 (16K), 995 (64K)	495 (16K), 995 (64K)	995 (64KB)	995 (64KB)	995 (64KB)
additional workstations, $	—	—	1,550 (CRT)	1,550	1,550
additional printer, $	—	—	8,000	6,000 to 8,000	6,000 to 8,000
Discounts available	Dealers	Dealers	Dealers	Dealers	Dealers
Date of first U.S. delivery	NA	NA	NA	First qtr. 1977	First qtr. 1977
Number installed to date	NA	NA	NA	NA	NA
COMMENTS	Supporting software can be written in either MSI Disk Extended Basic or SD Compiler Basic	Supports SDOS, MSI business software, and can be expanded to a System 12 configuration by the addition of the HD-8/R 10-megabyte disk system	SDOS disk operating system enables additional disk devices to be added while maintaining complete software compatibility		

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MANUFACTURER AND MODEL	Midwest Scientific Instruments System 10	Midwest Scientific Instruments System 12	Midwest Scientific Instruments System 12B-1	Midwest Scientific Instruments System 12B-2	Midwest Scientific Instruments System 12B-3
WORD LENGTH, BITS	8-bit byte	8-bit byte	8-bit byte	8-bit byte	8-bit byte
CPU					
Model	MSI-6800A	MSI-6800	MSI-6864	MSI-6864	MSI-6864
Add time, microseconds	—	—	—	—	—
No. of I/O ports on basic sys. and max.	7	7	7	7	7
INTERNAL STORAGE					
Type	Dynamic MOS	Dynamic MOS	Dynamic MOS	Dynamic MOS	Dynamic MOS
Capacity of basic system, bytes	56K	56K	120K	160K	208K
Maximum capacity, bytes	256K	256K	256K	256K	256K
Increment size, bytes	64K	64K	64K	64K	64K
Cycle/access time, microseconds	0.5	0.5	0.5	0.5	0.5
MASS STORAGE					
Floppy disk (diskette) drive	Optional	Std.; 315K bytes	Std.; 315K bytes	Standard	Standard
Maximum diskette storage	—	315K bytes	315K bytes	—	—
Cartridge disk drive	Std.; 10M bytes	Std.; 10M bytes	Std.; 10M bytes	Std.; 10M bytes	Std.; 10M bytes
Pack disk drive	—	—	—	—	—
Fixed-head disk/drum	—	—	—	—	—
Maximum disk storage	40M bytes	40M bytes	192M bytes	192M bytes	192M bytes
WORKSTATIONS					
Maximum number connectable	4	4	4	2	3
Recommended maximum number	4	4	4	2	3
Keyboard style	Optional	Optional	Optional	Optional	Optional
Workstation printer	Optional	Optional	Optional	—	—
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 150 cps	Opt.; 150 cps	Std.; 150 cps	Std.; 150 cps	Std.; 150 cps
Line printer	Opt.; 600 lpm	Opt.; 600 lpm	Opt.; 600 lpm	Opt.; 600 lpm	Opt.; 600 lpm
Reel-to-reel tape drive	Opt.; (1) 75 ips	Opt.; 75 ips	Opt.; (1) 75 ips	Optional	Optional
Cassette/cartridge tape drive	—	—	—	—	—
CRT	Opt.; 1600 char.	Opt.; 1600 char.	Std.; 1600 char.	Std.; (2) 1920 char.	Std.; (3) 1920 char.
Other	Modems	Modems	Modems	Modems	Modems
COMMUNICATIONS					
Maximum no. of lines	1	1	1	1	1
Synchronous	Opt.; up to 1200 bps	Opt.; up to 1200 bps	Opt.; up to 1200 bps	Opt.; up to 1200 bps	Opt.; up to 1200 bps
Asynchronous	Opt.; up to 1200 bps	Opt.; up to 1200 bps	Opt.; up to 1200 bps	Opt.; up to 1200 bps	Opt.; up to 1200 bps
Protocols supported	—	—	—	—	—
Network architecture supported	—	—	—	—	—
RJE terminals emulated	—	—	—	—	—
IBM 3270 emulation	—	—	—	—	—
SOFTWARE SUPPORT					
Cobol	No	No	No	No	No
RPG	No	No	No	No	No
Fortran	No	No	No	No	No
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	CGL	CGL	CGL	CGL	CGL
Multiprogramming	No	No	Yes, 4 partitions	Yes, 2 partitions	Yes, 3 partitions
Max. no. of jobs run concurrently	4	4	4	29 (2 for. /27 back.)	30 (3 for./27 back.)
Language complemented in firmware	Yes	Yes	Yes	Yes	Yes
Op. sys. implemented in firmware	Yes	Yes	Yes	Yes	Yes
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Mfg., dist.	Mfg. & dist.	Mfg. & dist.	Mfg., dist.	Mfg. & dist.
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Random, seq.	Random, seq.	Random, seq.	Random, seq.	Random, seq.
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	No	No	No	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Third-party	Third-party	Third-party	Third-party	Third-party
Maintenance plans available	Yes	Yes	Yes	Yes	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	18,960	17,671	23,959	26,640	29,447
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	—	—	—	—	—
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	995 (64KB)	995 (64KB)	995 (64KB)	995 (64KB)	995 (64KB)
additional workstations, $	1,550	1,550	1,550	1,550	1,550
additional printer, $	6,000 to 8,000	6,000 to 8,000	6,000 to 8,000	6,000 to 8,000	6,000 to 8,000
Discounts available	Dealers	Dealers	Dealers	—	—
Date of first U.S. delivery	First qtr. 1977	Second qtr. 1977	Third qtr. 1981	NA	NA
Number installed to date	NA	NA	—	NA	NA
COMMENTS					

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MANUFACTURER AND MODEL	Midwest Scientific Instruments System 12B-4	Midwest Scientific Instruments System 12B-5	Mini-Computer Systems MICOS 100	Mini-Computer Systems MICOS 200	Mini-Computer Systems MICOS 300
WORD LENGTH, BITS	8-bit byte	8-bit byte	16	16	16
CPU					
Model	MSI-6864	MSI-6864	MICOS 100	DG Nova 3/12	Dual DG Nova 3/12
Add time, microseconds	—	—	0.70	1.0	1.0
No. of I/O ports on basic sys. and max.	7	7	62 (maximum)	62 (maximum)	62 (maximum)
INTERNAL STORAGE					
Type	Dynamic MOS	Dynamic MOS	MOS	MOS	MOS
Capacity of basic system, bytes	256K	256K	64K	128K	192K
Maximum capacity, bytes	256K	256K	128K	256K	320K
Increment size, bytes	—	—	64K	128K	128K
Cycle/access time, microseconds	0.5	0.5	0.70/0.35	1.0/0.5	1.0/0.5
MASS STORAGE					
Floppy disk (diskette) drive	Standard	Std. (dual drive)	No	No	No
Maximum diskette storage	—	—	—	—	—
Cartridge disk drive	Std.; 10M bytes	Std.; 10M bytes	Std.; 10M bytes	Std.; 10M bytes	No
Pack disk drive	—	—	Opt.; 32-80M bytes	Opt.; 32-80M bytes	Opt.; 80-320M bytes
Fixed-head disk/drum	—	—	No	No	No
Maximum disk storage	192M bytes	192M bytes	320M bytes	320M bytes	1024M bytes (form.)
WORKSTATIONS					
Maximum number connectable	4	4	8	32	32
Recommended maximum number	4	4	8	16	24
Keyboard style	Optional	Optional	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	—	—	No	No	No
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 150 cps	Std.; 150 cps	Std.; 150 cps	Std.; 150 cps	Opt.; 150 cps
Line printer	Opt.; 600 lpm	Opt.; 600 lpm	Opt.; 300-600 lpm	Opt.; 300-600 lpm	Opt.; 300-600 lpm
Reel-to-reel tape drive	Optional	Optional	Yes	Yes	Opt.; 36-120KBS
Cassette/cartridge tape drive	—	—	No	No	No
CRT	Std.; (4) 1920 char.	Std.; (4) 1920 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	Modems	Modems	Opt.; letter-quality printer	Opt.; letter-quality printer	Opt.; letter-quality printer
COMMUNICATIONS					
Maximum no. of lines	1	1	0	1	1
Synchronous	Opt.; up to 1200 bps	Opt.; up to 1200 bps	No	Opt.; 9600 bps	Opt.; 9600 bps
Asynchronous	Opt.; up to 1200 bps	Opt.; up to 1200 bps	Std.; to 19.2K bps	Std.; to 19.2K bps	Std.; to 19.2K bps
Protocols supported	—	—	MTAM/Async	Bisync	Bisync
Network architecture supported	—	—	No	No	No
RJE terminals emulated	—	—	—	IBM 2780	IBM 2780
IBM 3270 emulation	—	—	No	No	No
SOFTWARE SUPPORT					
Cobol	No	No	No	No	No
RPG	No	No	No	No	No
Fortran	No	No	No	No	No
Basic	Yes	Yes	Extensive	Extensive	Extensive
Assembler	Yes	Yes	No	No	No
Other programming languages	CGL	CGL	MINQ	MINQ	MINQ
Multiprogramming	Yes, 4 partitions	Yes, 4 partitions	Yes (8 users)	Yes (16 users)	Yes (24 users)
Max. no. of jobs run concurrently	31 (4 for./27 back.)	31 (4 for./27 back.)	8	16	24
Language complemented in firmware	Yes	Yes	No	No	No
Op. sys. implemented in firmware	Yes	Yes	No	Opt.; partially	Std.; partially
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Mfg., dist.	Mfg., dist.	Various	Various	Various
Data base management system	Yes	Yes	"Factmatcher"	"Factmatcher"	"Factmatcher"
File access methods supported	Random, seq.	Random, seq.	Rand., seq., index	Rand., seq., index	Rand., seq., index
Software separately priced	Yes	Yes	Yes (application)	Yes (application)	Yes (application)
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Third-party	Third-party	Contact vendor	Contact vendor	Contact vendor
Maintenance plans available	Yes	Yes	On-site contract, third-party	On-site contract, third-party	On-site contract, third-party
PRICING & AVAILABILITY					
Purchase price of basic system, $	32,128	40,294	29,000	47,100	131,700
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	—	—	350	360	1,090
Monthly maint. bundled with rental, $	—	—	No	No	No
Purchase price of:					
additional memory module, $	—	—	—	—	—
additional workstations, $	—	—	1,800	1,800	1,800
additional printer, $	6,000 to 8,000	—	3,000 (150 cps)	3,000 (150 cps)	9,400 (300 lpm)
Discounts available	—	—	Dollar vol., OEM	Dollar vol., OEM	Dollar vol., OEM
Date of first U.S. delivery	NA	NA	1977	February 1973	November 1979
Number installed to date	NA	NA	Over 1,600 (all mod.)	Over 1,600 (all mod.)	Over 1,600 (all mod.)
COMMENTS			Formerly "MICOS II"	Formerly "MICOS"	Price includes five CRTs, 160 mega-bytes of disk storage, a 300-lpm printer, and an intelligent multi-plexer

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MANUFACTURER AND MODEL	Mitsubishi Electronics America, Inc. 8018	Mitsubishi Electronics America, Inc. 8018 II	Mitsubishi Electronics America, Inc. 8028	Mitsubishi Electronics America, Inc. 8038	Mylee Digital Sciences System 3000
WORD LENGTH, BITS	8	8	16	16	16
CPU					
Model	Mitsubishi Electric Corp. A1105	—	Mitsubishi Electric Corp. B1200-2	Mitsubishi Electric Corp. B1200-2	Mylee System 3000
Add time, microseconds	900 (12-digit)	—	37.5 (5-digit)	37.75 (5-digit)	125 (5 digits)
No. of I/O ports on basic sys. and max.	4, 12 (max.)	4, 12 (max.)	3, 64 (max.)	3, 64 (max.)	11, 19
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	48K	64K	256K	128K	88K
Maximum capacity, bytes	96K	128K	256K	512K	286K
Increment size, bytes	32K	32K	128K	128K	96K
Cycle/access time, microseconds	0.33 (1 byte)	6 (12 digits)	0.6 (2 bytes)	0.6 (2 bytes)	0.8/0.4
MASS STORAGE					
Floppy disk (diskette) drive	Std.; 512K-1M bytes	Std.; 512K bytes	Opt.; 256K-2M bytes	Opt.; 256K-2M bytes	—
Maximum diskette storage	2M bytes (4 units)	2M bytes (4 units)	2M bytes (2 units)	2M bytes (2 units)	—
Cartridge disk drive	Opt.; 10-40M bytes	10-40M bytes	Std.; 10-80M bytes	Std.; 10-160M bytes	Std.; 16M bytes
Pack disk drive	No	No	Opt.; 50-200M bytes	Opt.; 50-400M bytes	No
Fixed-head disk/drum	No	No	No	No	No
Maximum disk storage	40M bytes	40M bytes	200M bytes	400M bytes	64M bytes
WORKSTATIONS					
Maximum number connectable	5	5	4	27	2 std.; 14 opt.
Recommended maximum number	3	3	4	16	16
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	Opt.; 4	Opt.; 4	Opt.; 4	Opt.; 26	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 120 cps	200 cps	Opt.; 200 cps	Opt.; 200 cps	Std.; 200 cps
Line printer	Opt.; 300 lpm	300 lpm	Opt.; 300-600 lpm	Opt.; 110/600 lpm	Opt.; 300 lpm
Reel-to-reel tape drive	No	No	Opt.; 20-40K	Opt.; 20K/40K	No
Cassette/cartridge tape drive	Opt.; 6K/No	Opt.; 6K/No	Opt.; 6K/No	Opt.; 6K/No	No
CRT	Std.; 1024 char.*	Std.; 1024 char.*	Std.; 2000 char.	Std.; 2000 char.	Std.; 332-1920 char.
Other	—	—	—	—	No
COMMUNICATIONS					
Maximum no. of lines	1	1	32	32	16
Synchronous	Opt.; 1200-9600 bps	Opt.; 1200-9600 bps	Opt.; 1200-19.2K bps	Opt.; 1200-19.2K bps	Opt.; to 9600 bps
Asynchronous	Opt.; 200-9600 bps	Opt.; 200-9600 bps	Opt.; 300-9600 bps	Opt.;300-9600 bps	Opt.; to 1200 bps
Protocols supported	BC-1, BSC	BC-1, BSC	BC-1, BSC	BC-1, BSC	Bisync
Network architecture supported	NA	NA	NA	NA	—
RJE terminals emulated	NA	NA	NA	NA	IBM 2780/3780
IBM 3270 emulation	No	No	No	No	No
SOFTWARE SUPPORT					
Cobol	Yes	No	Yes	Yes	No
RPG	No	No	Yes	Yes	No
Fortran	No	No	Yes	Yes	No
Basic	Yes	Yes	Yes	Yes	No
Assembler	Yes	Yes	No	No	No
Other programming languages	—	—	PROGRESS II	PROGRESS II	ACE
Multiprogramming	Yes	Yes	Yes	Yes	Yes; 12 partitions
Max. no. of jobs run concurrently	6	6	16	16	24
Language complemented in firmware	Fully	Fully	Fully	Partially	Partially
Op. sys. implemented in firmware	Fully	Fully	Partially	Partially	Partially
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Dist., pub., tracking	Dist., pub., tracking	Distribution	Distribution	Distribution
Data base management system	No	No	Yes	Yes	Yes
File access methods supported	Seq., direct, ISAM	Seq., direct, ISAM	Seq., direct, ISAM	Seq., dir., rel., ISAM	Index sequential
Software separately priced	Yes (application)	Yes (application)	Yes (application)	Yes (application)	Some
Technical help separately priced	Yes	Yes	Yes	Yes	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Third-party	Third-party	Third-party	Third-party	Third-party
Maintenance plans available	On-site contract	On-site contract	On-site contract	On-site contract	On-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	8,500	15,480	38,000	43,000	32,995
Monthly rental of basic system, $	NA	NA	NA	NA	Purchase only
Monthly maint. price of basic system, $	140	140	268	287	—
Monthly maint. bundled with rental, $	No	No	No	No	—
Purchase price of:					
additional memory module, $	1,000 (32K bytes)	1,000 (32KB)	3,800 (128K bytes)	3,800 (128K bytes)	3,150 (96K bytes)
additional workstations, $	4,000	4,000	2,800	2,800	2,950
additional printer, $	12,000 (300 lpm)	12,000 (300 lpm)	17,000 (600 lpm)	17,000 (600 lpm)	Various models
Discounts available	NA	NA	NA	NA	—
Date of first U.S. delivery	February 1979	June, 1981	August 1980	November 1979	May 1976
Number installed to date	NA	NA	NA	NA	200
COMMENTS	*Optional 2000-character CRT available				Total turnkey system from design to installation

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MANUFACTURER AND MODEL	NCR 7510	NCR 7520	NCR 7520 R & M	NCR 7520 SBS	NCR 7530
WORD LENGTH, BITS	8	8	8	8	8
CPU					
Model	Intel 8080	Intel 8080	Intel 8080	Intel 8080	Intel 8080
Add time, microseconds	—	—	—	—	—
No. of I/O ports on basic sys. and max.	2, 4	2, 4	2, 4	2, 4	2, 6
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	48K	48K	48K	48K	48K
Maximum capacity, bytes	48K	48K	48K	48K	48K
Increment size, bytes	—	—	—	—	—
Cycle/access time, microseconds	—	—	—	—	—
MASS STORAGE					
Floppy disk (diskette) drive	—	Std.; 250K bytes	Std.; 250K bytes	Std.; 500K bytes	Std.; 250K bytes
Maximum diskette storage	—	500K bytes (2 drives)	500K bytes (2 drives)	500K bytes (2 drives)	500K bytes (2 drives)
Cartridge disk drive	—	—	—	—	—
Pack disk drive	—	—	—	—	—
Fixed-head disk/drum	—	—	—	—	—
Maximum disk storage	—	—	—	—	—
WORKSTATIONS					
Maximum number connectable	1	1	1	1	1
Recommended maximum number	1	1	1	1	1
Keyboard style	Keypunch, type.	Keypunch, type.	Keypunch, type.	Typewriter	Keypunch, type.
Workstation printer	—	—	—	—	—
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; (1) 50-125 lpm	Opt.; (1) 50-125 lpm	Opt.; (1) 50-125 lpm	Std.; 50-125 lpm	Opt.; (1) 50-125 lpm
Line printer	—	—	—	—	—
Reel-to-reel tape drive	—	Opt.; 12.5 ips	Opt.; 12.5 ips	Opt.; 12.5 ips	Opt.; 12.5 ips
Cassette/cartridge tape drive	Std.; 15.0 ips/No	—	—	—	Std.; 15.0 ips/No
CRT	Std.; 512-char.*	Std.; 512 char.*	Std.; 2000 char.	Std.; 2000 char.	Std.; 512 char.*
Other	—	—	OCR printer (opt.)		—
COMMUNICATIONS					
Maximum no. of lines	1	1	—	1	1
Synchronous	Optional	Optional	Standard	Optional	Opt. (ACH opt.)
Asynchronous	—	—	Standard	—	—
Protocols supported	2780/3780	2780/3780	2780/3780	2780/3780	2780/3780
Network architecture supported	—	—	—	—	—
RJE terminals emulated	2780/3780	2780/3780	2780/3780	2780/3780	2780/3780
IBM 3270 emulation	—	—	—		—
SOFTWARE SUPPORT					
Cobol	No	No	No	—	—
RPG	No	No	No	—	—
Fortran	No	No	No	—	—
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	No	No	No	—	—
Other programming languages	—	—	—	—	—
Multiprogramming	—	—	—	—	—
Max. no. of jobs run concurrently	—	—	—	—	—
Language complemented in firmware	Yes	Yes	Yes	Yes	Yes
Op. sys. implemented in firmware	Yes	Yes	Yes	Yes	Yes
General accounting packages	—	Yes	Yes	Yes	Yes
Industry application areas	NA	—	—	—	—
Data base management system	—	—	Receiving & mktg.	—	—
File access methods supported	Serial	Seq., random	Seq., random	Seq., random	Seq., random
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	1, 3 or 5 years	1, 3 or 5 years	1, 3 or 5 years	1, 3 or 5 years	1, 3 or 5 years
Maintenance plans available	On-site contract	On-site contract	On-site contract	On-site contract	On-site contract
PRICING & AVAILABILITY					
Purchase price of basic system, $	6,015	6,810	10,910	9,195	6,290-18,950
Monthly rental of basic system, $	228 (1-yr.)	NA	427 (1-yr.)	—	—
Monthly maint. price of basic system, $	637	Contact vendor	1,020	125	—
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	—	—	—	—	—
additional workstations, $	—	—	—	—	—
additional printer, $	Contact vendor	Contact vendor	Contact vendor	—	Contact vendor
Discounts available	Yes	Yes	Yes	—	Yes
Date of first U.S. delivery	June 1978	July 1979	January 1982	July 1979	October 1978
Number installed to date	NA	NA	NA	50	75
COMMENTS	*Optional CRT contains 2000 characters	*Optional CRT contains 2000 characters			*Optional CRT contains 2000 characters

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MANUFACTURER AND MODEL	NCR I-9010	NCR I-9020	NCR I-9040	NCR I-9050	NEC Information Systems, Inc. Astra 205-100
WORD LENGTH, BITS	8	16	16	32	16 (2 bytes)
CPU					
Model	—	NCR 6082	NCR 5521	NCR 5600	NECIS-205
Add time, microseconds	—	—	—	—	—
No. of I/O ports on basic sys. and max.	—	—	—	—	3
INTERNAL STORAGE					
Type	MOS	LSI, MOS	LSI, MOS	LSI, MOS	MOS
Capacity of basic system, bytes	48K	64K	256K	512K	128K
Maximum capacity, bytes	128K	512K	2048K	3M	256K
Increment size, bytes	32K	32K, 128K	256K	512K, 1024K	64K/128K
Cycle/access time, microseconds	0.6	0.8	0.112	—	800 ns. (2 bytes)
MASS STORAGE					
Floppy disk (diskette) drive	Std.; 243K bytes	Std.; 243K bytes	Prgm. load. & testing	Prgm. load. & testing	Std.; 2.4M bytes
Maximum diskette storage	4M bytes	486K bytes	—	—	4.8M bytes
Cartridge disk drive	—	No	No	No	—
Pack disk drive	—	Std.; 9.8-324MB	81M-2582MB	81M-2582MB+	—
Fixed-head disk/drum	—	No	No	No	—
Maximum disk storage	—	324M bytes	2582M bytes	2582M bytes+	—
WORKSTATIONS					
Maximum number connectable	1	24	21*	21*	1
Recommended maximum number	1	24	21	21	1
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Alphanumeric, num.
Workstation printer	Optional	Optional	Optional	Optional	1
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 180 cps	No	No	No	Std.; 35-120 cps
Line printer	Std.; 70-200 lpm	Std.; 50-900 lpm	Std.; 50-1200 lpm	Std.; 50-1200 lpm	—
Reel-to-reel tape drive	No	No	Opt.; 50-200 ips	Opt.; 50-200 ips	—
Cassette/cartridge tape drive	Opt.; 800 bpi	Std.; 800/1600 bpi	Std.; 800/1600 bpi	Std.; 800/1600 bpi	—
CRT	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; 2000 char.
Other	Visual record printer	Card reader	Card reader	Card reader	—
COMMUNICATIONS					
Maximum no. of lines	1	24	21*	21*	1
Synchronous	Std.; to 9600 bps	Std.; to 9600 bps	Std.; to 9600 bps	Std.; to 19.2K bps	Opt.; 4800 bps
Asynchronous	No	Std.; to 9600 bps	Std.; to 9600 bps	Std.; to 19.2K bps	Opt.; 4800 bps
Protocols supported	Bisync	Async, Bisync	Async, Bisync	Async, Bisync	IBM 3740/3780
Network architecture supported	—	—	—	—	—
RJE terminals emulated	2780/3780	2780/3780	2780/3780	2780/3780	Protocol
IBM 3270 emulation	—	—	—	—	—
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	ANSI 74
RPG	No	No	Yes	Yes	No
Fortran	No	No	Yes	Yes	Yes
Basic	Yes	Yes	Yes	Yes	NEC BASIC
Assembler	No	No	Yes	Yes	Yes
Other programming languages	—	—	NEAT 3	NEAT 3	NEC SMART
Multiprogramming	—	—	Yes	Yes	Yes (dynamic)
Max. no. of jobs run concurrently	—	—	—	—	Mem. & appl. depen.
Language complemented in firmware	No	No	Fully	Fully	Yes
Op. sys. implemented in firmware	No	No	Fully	Fully	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	General-purpose	General-purpose	General-purpose	General-purpose	Various
Data base management system	NA	NA	NA	NA	No
File access methods supported	Rand., seq., ISAM	Rand., seq., ISAM	Rand., seq., ISAM	Rand., seq., ISAM	Random, seq., ISAM
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	—	—	—	—	No
Maintenance plans available	Yes	Yes	Yes	Yes	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	6,320*	19,745*	36,575**	88,700**	6,500
Monthly rental of basic system, $	478	1,285	1,299	3,123	—
Monthly maint. price of basic system, $	292 (annual)	878 (annual)	1,132 (annual)	2,377 (annual)	90
Monthly maint. bundled with rental, $	—				
Purchase price of:					
additional memory module, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	See Comments
additional workstations, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	—
additional printer, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	—
Discounts available	Yes	Yes	Yes	Yes	—
Date of first U.S. delivery	May 1981	April 1981	April 1981	June 1981	May 1980
Number installed to date	NA	NA	NA	NA	NA
COMMENTS	*Price includes processor, keyboard, 48KB memory, and 12-inch CRT	*Price includes processor, 64KB memory, cassette/cartridge interface, buffered & common trunk, 9.8MB disk storage, & 29-inch processor cabinet	*More workstations & lines can be supported with a communications multiplexer; **price includes processor, 256KB memory, & module control unit	*More workstations & lines can be supported with a multiplexer; **price includes processor, 512KB memory, & module control unit, and 45-inch processor cabinet	64K-byte increment is $1,200, and 128K-byte increment is $1,800

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MANUFACTURER AND MODEL	NEC Information Systems, Inc. Astra 210-200	NEC Information Systems, Inc. Astra 230-200	NEC Information Systems, Inc. Astra 250-200	NEC Information Systems, Inc. Astra 270-200	New England Digital ABLE/40, /60
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	NECIS-210	NECIS-230	NECIS-250	NECIS-270	NED Model B
Add time, microseconds	—	—	—	—	0.25 (16 bits)
No. of I/O ports on basic sys. and max.	10	16	20	29	NA
INTERNAL STORAGE					
Type	MOS	MOS	Bipolar	Bipolar	MOS
Capacity of basic system, bytes	256K	256K	384K	384K	32K
Maximum capacity, bytes	384K	512K	768K	1024K	120K
Increment size, bytes	128K	128K/256K	128K/256K	128K/256K	16K
Cycle/access time, microseconds	800 ns. (2 bytes)	800 ns. (2 bytes)	600 ns. (2 bytes)	600 ns. (2 bytes)	0.45/0.45
MASS STORAGE					
Floppy disk (diskette) drive	Std.; 2.4M bytes	Std.; 1.2M bytes	Std.; 1.2M bytes	Std.; 1.2M bytes	Standard (2)
Maximum diskette storage	4.8M bytes	2.4M bytes	2.4M bytes	2.4M bytes	See Comments
Cartridge disk drive	—	—	—	—	—
Pack disk drive	—	—	—	—	—
Fixed-head disk/drum	—	—	—	—	Opt.; 20M bytes
Maximum disk storage	—	19-64M bytes	19-128M bytes	19-256M bytes	40M bytes
WORKSTATIONS					
Maximum number connectable	4	4	8	16	1
Recommended maximum number	Application dep.	Application dep.	Application dep.	Application dep.	1
Keyboard style	Alphanumeric, num.	Alphanumeric, num.	Alphanumeric, num.	Alphanumeric, num.	Type., num. key.
Workstation printer	Up to 4	Up to 4	Up to 8	Up to 16	Optional (1)
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 35-120 cps	Std.; 35-120 cps	Std.; 35-120 cps	Std.; 35-120 cps	Opt.; 30-180 cps
Line printer	Opt.; 300-600 lpm	Opt.; 300-600 lpm	Opt.; 300-600 lpm	Opt.; 300-600 lpm	Opt.; 300 lpm
Reel-to-reel tape drive	—	Opt.; 800-1600 bpi	Opt.; 800-1600 bpi	Opt.; 800/1600 bpi	No
Cassette/cartridge tape drive	—	Opt.; 6400 bpi	Opt.; 6400 bpi	Opt.; 6400 bpi	No
CRT	Std.; (1) 2000 char.	Std.; (1) 2000 char.	Std.; (1) 2000 char.	—	Std.; 1920 char.
Other	—	—	—	—	—
COMMUNICATIONS					
Maximum no. of lines	4	8	8	8	1
Synchronous	Opt.; 4800 bps	Opt.; 4800 bps	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; to 9600 bps
Asynchronous	Opt.; 4800 bps	Opt.; 4800 bps	Opt.; 9600 bps	Opt.; 9600 bps	Std.; to 9600 bps
Protocols supported	IBM 3740/3780	IBM 3740/3780	IBM 3740/3780	IBM 3740/3780	Async, Bisync
Network architecture supported	—	—	—	—	NA
RJE terminals emulated	Protocol	Protocol	Protocol	Protocol	2780
IBM 3270 emulation	—	—	—	—	No
SOFTWARE SUPPORT					
Cobol	ANSI 74	ANSI 74	ANSI 74	ANSI 74	No
RPG	No	No	No	No	No
Fortran	Yes	Yes	Yes	Yes	No
Basic	NEC BASIC	NEC BASIC	NEC BASIC	NEC BASIC	No
Assembler	Yes	Yes	Yes	Yes	No
Other programming languages	NEC SMART	NEC SMART	NEC SMART	NEC SMART	XPL
Multiprogramming	Yes (dynamic)	Yes (dynamic)	Yes (dynamic)	Yes (dynamic)	No
Max. no. of jobs run concurrently	Mem. & appl. depen.	Mem. & appl. depen.	Mem. & appl. dep.	Mem. & appl. dep.	NA
Language complemented in firmware	Yes	Yes	Yes	Yes	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	No
Industry application areas	Various	Various	Various	Various	Process control
Data base management system	No	No	No	No	No
File access methods supported	Random, seq., ISAM	Random, seq., ISAM	Random, seq., ISAM	Random, seq., ISAM	Direct, seq.
Software separately priced	Yes	Yes	Yes	Yes	No
Technical help separately priced	Yes	Yes	Yes	Yes	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	No	No	No	No	Contact vendor
Maintenance plans available	Yes	Yes	Yes	Yes	NA
PRICING & AVAILABILITY					
Purchase price of basic system, $	11,800	13,500	21,900	27,200	7,950
Monthly rental of basic system, $	—	—	—	—	NA
Monthly maint. price of basic system, $	120	140	220	275	NA
Monthly maint. bundled with rental, $	—	—	—	—	NA
Purchase price of:					
additional memory module, $	1,800 (128K bytes)	1,800 (128K bytes)*	1,800 (128K bytes)*	1,800 (128K bytes)*	1,250 (16KB)
additional workstations, $	2,900	2,900	2,900	2,900	NA
additional printer, $	—	—	—	—	NA
Discounts available	—	—	—	—	Yes
Date of first U.S. delivery	July 1979	July 1979	July 1979	November 1981	September 1977
Number installed to date	NA	NA	NA	NA	NA
COMMENTS	Up to 4 CRTs can be configured to the system	Up to 4 CRTs can be configured to the system; *256K-byte increment is $2,700	Up to 8 CRTs can be configured to the system; *256K-byte memory increment is available for $2,700	*256K-byte memory increment is available for $2,700	Maximum diskette storage for ABLE/40 is 179K bytes, while the ABLE/60 provides 630K bytes of diskette storage

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MANUFACTURER AND MODEL	Nixdorf 8870/1	Nixdorf 8870/3	North Star ADVANTAGE ADV-1Q-64K-HD	North Star ADVANTAGE ADV-2Q-64K	North Star HORIZON HRZ-1Q-64K-HD5
WORD LENGTH, BITS	16	16	8	8	8
CPU					
Model	Nixdorf	Nixdorf	Zilog Z80A	Zilog Z80A	Zilog Z80A
Add time, microseconds	1.3	0.7	—	—	—
No. of I/O ports on basic sys. and max.	4, 8	4, 16	1SIO, 5 (SIO + PIO)	1SIO, 6 (SIO + PIO)	2SIO + 2PIO, 6SIO + 2PIO
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	96K	128K	84K	84K	64K
Maximum capacity, bytes	256K	512K	84K	84K	512K
Increment size, bytes	32K	32K	—	—	32K
Cycle/access time, microseconds	0.7	0.4	200 nano.	200 nano.	200 nano.
MASS STORAGE					
Floppy disk (diskette) drive	No	No	Std.; (1) 360KB	Std.; (2) 720KB	Std.; (1) 360KB
Maximum diskette storage	NA	NA	360K bytes	720K bytes	360K bytes
Cartridge disk drive	Std.; 10-40M bytes	Std.; 26-78M bytes	Std.; 5M bytes	—	Std.; 5M bytes
Pack disk drive	Opt.; 26-66M bytes	Opt.; 26-264M bytes	—	—	—
Fixed-head disk/drum	No	No	—	—	—
Maximum disk storage	66M bytes	264M bytes	5M bytes	—	5M bytes
WORKSTATIONS					
Maximum number connectable	16	32	1 (integral)	1 (integral)	5
Recommended maximum number	Appl. dependent	Appl. dependent	1	1	5
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Optional
Workstation printer	Optional	Optional	Optional	Optional	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 100 cps	Std.; 100 cps	—	—	Opt.; (2) 33-80 cps
Line printer	Std.; 300 lpm	Std.; 300 lpm	—	—	—
Reel-to-reel tape drive	Opt.; 800-1600 bpi	Opt.; 800-1600 bpi	—	—	—
Cassette/cartridge tape drive	No	No	Opt.; 13.4M bytes	—	Opt.; 13.4M bytes
CRT	Std.; 25 x 80 char.	Std.; 25 x 80 char.	Std.; 1920 char.	Std.; 1920 char.	Opt.; (5) 1920 char.
Other	Hard-copy term., color plotter	Hard-copy term., color plotter	CRT graphics (800 x 240 pixels)	CRT graphics (800 x 240 pixels)	S-100 Bus
COMMUNICATIONS					
Maximum no. of lines	10	18	6	6	6
Synchronous	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; 19,200 bps	Opt.; 19,200 bps	Opt.; 9600 bps
Asynchronous	—	—	Std.; 9600 bps	Std.; 9600 bps	Std.; 9600 bps
Protocols supported	Bisync, Async	Bisync, Async	—	—	—
Network architecture supported	—	—	—	—	—
RJE terminals emulated	2780, 3740, 3780	2780, 3740, 3780	—	—	—
IBM 3270 emulation	No	No	No	No	No
SOFTWARE SUPPORT					
Cobol	No	No	Yes	Yes	Yes
RPG	No	No	No	No	No
Fortran	No	No	Yes	Yes	Yes
Basic	Yes	Yes	Yes (graphics)	Yes (graphics)	Yes
Assembler	No	No	Yes	Yes	Yes
Other programming languages	—	Pascal	—	Pascal	—
Multiprogramming	Yes	Yes	Yes, 5 partitions	No	Yes, 5 partitions
Max. no. of jobs run concurrently	18	34	5	2	5
Language complemented in firmware	No	No	Yes	Yes	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Dist., med., gov't.	Dist., med., gov't.	General-purpose	General-purpose	General-purpose
Data base management system	No	No	Yes	Yes	Yes
File access methods supported	Random, seq., ISAM	Random, seq., ISAM	Random, seq., ISAM	Random, seq., ISAM	Random, seq., ISAM
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	—	—	—
LEASE/MAINTENANCE OPTIONS					
Lease plans available	60-month	60-month	At dealer discretion	At dealer discretion	At dealer discretion
Maintenance plans available	Contact Nixdorf	Contact Nixdorf	Yes	Yes	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	30,750	46,200	Contact vendor	3,999	6,695
Monthly rental of basic system, $	753	1,132	Contact vendor	Contact vendor	Contact vendor
Monthly maint. price of basic system, $	313	364	Contact vendor	Contact vendor	Contact vendor
Monthly maint. bundled with rental, $	No	No	Contact vendor	Contact vendor	Contact vendor
Purchase price of:					
additional memory module, $	2,500	2,500	—	—	599 (32KB)*
additional workstations, $	2,950	2,950	—	—	—
additional printer, $	4,950	4,950	995-2,589	995-2,589	995-2,589
Discounts available	Yes	Yes	To distributors & indep. sales organ.	To distributors & indep. sales organ.	To distributors & indep. sales organ.
Date of first U.S. delivery	1978	1981	January 1982	September 1981	October 1981
Number installed to date	150	50	NA	NA	30,000 (all HORI-ZON systems) *64K-byte memory increment is available for $1,099
COMMENTS					

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MANUFACTURER AND MODEL	North Star HORIZON HRZ-1Q-64K HD18	North Star HORIZON HRZ-2Q-64K	Olivetti BCS 2025	Olivetti BCS 2030 FDU	Olivetti BCS 2030 FV
WORD LENGTH, BITS	8	8	8	8-bit byte	8
CPU					
Model	Zilog Z80A	Zilog Z80A	Intel 8080	Intel 8080	Intel 8080
Add time, microseconds	—	—	6	6	6
No. of I/O ports on basic sys. and max.	2SIO + 1PIO, 6SIO + 1PIO	2SIO + 2PIO, 6SIO + 2PIO	4, 4	4, 4	4, 4
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	64K	64K	64K	36K	64K
Maximum capacity, bytes	512K	512K	64K	64K	64K
Increment size, bytes	32K	32K	—	4K	—
Cycle/access time, microseconds	200 nano.	200 ns.	1/2.3	1/2.3	1/2.3
MASS STORAGE					
Floppy disk (diskette) drive	Std.; (1) 360KB	Std.; (2) 720K bytes	Std.; 2M bytes	Standard	Std.; 2M bytes
Maximum diskette storage	360K bytes	720K bytes	4M bytes	—	4M bytes
Cartridge disk drive	Std.; 18M bytes	Opt.; 18M bytes	No	No	Opt.; 20M bytes
Pack disk drive	—	—	No	No	No
Fixed-head disk/drum	—	—	No	No	No
Maximum disk storage	72M bytes	72M bytes	—	—	20M bytes
WORKSTATIONS					
Maximum number connectable	5	1	1	1	1
Recommended maximum number	5	1	1	1	1
Keyboard style	Optional	Optional	Typewriter	Typewriter	Typewriter
Workstation printer	Optional	Optional	Standard	Standard	Standard
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; (2) 33-80 cps	Opt.; (1) 33-80 cps	Std.; 60 cps	Std.; 100 cps	Std.; 100 cps
Line printer	—	—	Opt.; 200 cps	Opt.; 200 cps	Opt.; 200 cps
Reel-to-reel tape drive	—	—	No	No	No
Cassette/cartridge tape drive	Opt.; 13.4M bytes	—	Opt.; 1000 cps/No	Opt. cast.; 1000 cps	Opt. cast.; 1000 cps
CRT	Opt.; (5) 1920 char.	Opt.; (1) 1920 char.	Std.; 24 x 80 char.	Standard	Std.; 24 x 80 char.
Other	S-100 Bus	S-100 Bus	No	No	No
COMMUNICATIONS					
Maximum no. of lines	6	6	1	1	1
Synchronous	Opt.; 9600 bps	Opt.; 9600 bps	Standard	Standard	Standard
Asynchronous	Std.; 9600 bps	Std.; 9600 bps	No	No	No
Protocols supported	—	—	Bisync	Bisync	Bisync
Network architecture supported	—	—	None	None	None
RJE terminals emulated	—	—	2780	IBM 2780	2780
IBM 3270 emulation	No	No	No	No	No
SOFTWARE SUPPORT					
Cobol	Yes	Yes	No	No	No
RPG	No	No	No	No	No
Fortran	Yes	Yes	No	No	No
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	No	—	—
Other programming languages	—	Pascal	No	No	No
Multiprogramming	Yes, 5 partitions	No	No	No	No
Max. no. of jobs run concurrently	5	2	1	1	1
Language complemented in firmware	No	No	Fully	Fully	Fully
Op. sys. implemented in firmware	No	No	Partially	Partially	Partially
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	General-purpose	General-purpose	Whsle., dist., bus.	Whsl., dist., bus.	Whsl., dist., bus.
Data base management system	Yes	Yes	No	No	No
File access methods supported	Random, seq., ISAM	Random, seq., ISAM	Rand., seq., ISAM	Rand., seq., index	Random, seq., ISAM
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	—	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	At dealer discretion	At dealer discretion	Up to 5 yrs.	Up to 5 yrs.	Up to 5 years
Maintenance plans available	Yes	Yes	Contact vendor	Contact vendor	Contact vendor
PRICING & AVAILABILITY					
Purchase price of basic system, $	9,270	4,495	12,950	13,350	14,950
Monthly rental of basic system, $	Contact vendor	Contact vendor	Leases available	Leases available	Leases available
Monthly maint. price of basic system, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Monthly maint. bundled with rental, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Purchase price of:					
additional memory module, $	599 (32KB)*	599 (32KB)*	—	650 (4K bytes)	—
additional workstations, $	—	—	Contact vendor	Contact vendor	Contact vendor
additional printer, $	995-2,589	995-2,589	—	—	—
Discounts available	To dist. & indep. sales org.	To dist. & indep. sales org.	—	—	—
Date of first U.S. delivery	April 1980	December 1977	December 1980	January 1979	December 1980
Number installed to date	30,000 (all HORIZON systems)	30,000 (all HORIZON systems)	NA	NA	NA
COMMENTS	*64K-byte memory increment is available for $1,099	*64K-byte memory increment is available for $1,099			

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MANUFACTURER AND MODEL	Olivetti BCS 2030 MDU	Olivetti S6000	Pertec PCC2000	Point 4 Data Corp. Mark 3	Point 4 Data Corp. Mark 5 (4/3, 4/4)
WORD LENGTH, BITS	8-bit byte	16	8	16	16
CPU					
Model	Intel 8080	Alpha Micro 100T	Intel 8085	—	—
Add time, microseconds	6	—	—	0.5 (16 bits)	0.4 (16 bits)
No. of I/O ports on basic sys. and max.	4, 4	24	3, 6	4	0, 128
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	4K	128K	64K	64K	64K, 128K
Maximum capacity, bytes	16K	1M	256K	64K	64K, 128K
Increment size, bytes	4K	128K	64K	—	—
Cycle/access time, microseconds	1/2.3	—	1.3	0.5	0.4
MASS STORAGE					
Floppy disk (diskette) drive	Std.; 8K bytes	1.2M bytes	Std.; (2) 1.2M bytes	No	See Comments*
Maximum diskette storage	—	2.4M bytes	(4) 2.4M bytes	No	—
Cartridge disk drive	No	10-90M bytes	Opt.; 10-20M bytes	Opt.; (2) any CMD	—
Pack disk drive	No	—	No	Opt.; (2) any SMD	—
Fixed-head disk/drum	No	8.5-200M bytes	Opt.; 10MB (Winch.)	No	—
Maximum disk storage	—	360M bytes	80M bytes	Dependent on drive	1200M bytes
WORKSTATIONS					
Maximum number connectable	1	24	4	4	128
Recommended maximum number	1	—	4	4	8, 16
Keyboard style	Typewriter	Typewriter	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	Standard	Optional	None	—	—
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 100 cps	Std.; 150 cps	Std.; 55-120 cps	Any w/RS-232-C int.	See Comments*
Line printer	Opt.; 200 cps	300-600 lpm	Opt.; (2) 150-300 lpm	Any w/RS-232-C int.	—
Reel-to-reel tape drive	No	800/1600 bpi	No	No	—
Cassette/cartridge tape drive	Opt. cast.; 1000 cps	—	No	Opt.; cast., 9600 bps	Opt.; cast., 9600 bps
CRT	Standard	1920 char.	Std.; 1920 char.	See Comments*	See Comments*
Other	Mag. card reader	—	—	—	—
COMMUNICATIONS					
Maximum no. of lines	1	—	4	4	128
Synchronous	Standard	300-19,200 bps	Optional	—	—
Asynchronous	No	300 bps	Std.; to 9600 bps	Opt.; 110-9600 bps	Opt.; 110-19,200 bps
Protocols supported	Bisync	—	2780/3780	—	—
Network architecture supported	None	—	No	—	—
RJE terminals emulated	IBM 2780	—	No	—	—
IBM 3270 emulation	No	—	No	—	—
SOFTWARE SUPPORT					
Cobol	No	No	Yes (micro soft)	No	No
RPG	No	No	No	No	No
Fortran	No	No	Yes (micro soft)	No	No
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	No	Yes	Yes
Other programming languages	No	Pascal/Lisp	—	—	—
Multiprogramming	No	Yes	Yes, 5 partitions	Yes	Yes
Max. no. of jobs run concurrently	1	24	5	4	Unlimited
Language complemented in firmware	Fully	No	No	No	No
Op. sys. implemented in firmware	Fully	No	Partially	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Business	Distribution	Dist., gen.-purpose	Const., WP	Const., WP
Data base management system	No	No	Yes	Yes	Yes
File access methods supported	Rand., seq.	Seq., random, ISAM	Seq., random, ISAM	Rand., ISAM, seq.	Rand., ISAM, seq.
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Up to 5 years	3 to 5 years	Third-party, on-call	No	No
Maintenance plans available	Contact vendor	—	Yes	Third-party	Third-party
PRICING & AVAILABILITY					
Purchase price of basic system, $	9,950	16,500	13,750	6,821	11,970
Monthly rental of basic system, $	Leases available	NA	Third-party dep.	—	—
Monthly maint. price of basic system, $	Contact vendor	289.75	132	—	—
Monthly maint. bundled with rental, $	Contact vendor	—	—	—	—
Purchase price of:					
additional memory module, $	650 (4K bytes)	2,400 (128KB)	—	—	—
additional workstations, $	—	1,500	2,775	—	—
additional printer, $	Contact vendor	1,975-10,000	2,900	—	—
Discounts available	—	—	—	Blanket, Staircase	Blanket, Staircase
Date of first U.S. delivery	January 1979	October 1981	November 1978	April 1981	March 1980
Number installed to date	NA	NA	1500 +	145	2300
COMMENTS			One 55-120 cps serial printer is available as an option	*Point 4 has device handlers to support many peripherals not supplied by Point 4; processors include virtual front panels, self-test diagnostics, chassis, power supply	*Point 4 has device handlers to support many peripherals not supplied by Point 4; processors include virtual front panels, self-test diagnostics, chassis, power supply

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MANUFACTURER AND MODEL	Point 4 Data Corp. Mark 8	PolyMorphic Systems 8810	PolyMorphic Systems 8813	Prime 150-II	Prime 250-II
WORD LENGTH, BITS	16	8	8	32	32
CPU					
Model	—	Intel, NEC, 8080A	Intel, NEC, 8080A	Prime 150-II	Prime 250-II
Add time, microseconds	0.4 (16 bits)	2, 12	2, 12	—	—
No. of I/O ports on basic sys. and max.	0, 128	12, 256	12, 256	—	—
INTERNAL STORAGE					
Type	MOS	MOS	MOS	ECC MOS	ECC MOS
Capacity of basic system, bytes	128K	56K	64K	256K (2K cache)	512K (2K cache)
Maximum capacity, bytes	128K	56K	104K	1M	1M
Increment size, bytes	—	8K, 16K, 48K	8K, 16K, 48K	256K	256K
Cycle/access time, microseconds	0.4	—	—	1.0 (32 bits)	1.0 (32 bits)
MASS STORAGE					
Floppy disk (diskette) drive	See Comments*	Std.; 390K bytes	Std.; (3) 390K bytes	—	—
Maximum diskette storage	—	5.36M bytes	6.08M bytes	—	—
Cartridge disk drive	—	—	—	Std.; 32-96M bytes	Std.; 32-96M bytes
Pack disk drive	—	—	—	—	—
Fixed-head disk/drum	—	Opt.; 68M bytes	Opt.; 624M bytes	—	—
Maximum disk storage	1200M bytes	68M bytes	624M bytes	96M bytes	96M bytes
WORKSTATIONS					
Maximum number connectable	128	1	2	32	32
Recommended maximum number	32	1	2	32	32
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Typewriter	Typewriter
Workstation printer		Optional	Optional	—	—
INPUT/OUTPUT DEVICES					
Serial printer	See Comments*	Opt.; 110-9600 bps	Opt.; 110-9600 bps	Opt.; 55 cps	Opt.; 55 cps
Line printer	—	NA	—	Opt.; 200-1000 lpm	Opt.; 200-1000 lpm
Reel-to-reel tape drive	—	NA	NA	Opt.; 556/6250 bpi	Opt.; 556/6250 bpi
Cassette/cartridge tape drive	Opt.; cast., 9600 bps	Optional	Optional	No	No
CRT	See Comments*	Std.; 64 x 16 char.	Std.; 64 x 16 char.	—	Standard
Other	—	—	—	Punched card reader	Punched card reader
COMMUNICATIONS					
Maximum no. of lines	128	1	1	32	32
Synchronous	—	Standard	Standard	—	—
Asynchronous	Opt.; 110-19,200 bps	Standard	Standard	Standard	Standard
Protocols supported	—	—	—	See Comments	See Comments
Network architecture supported	—	POLYNET	POLYNET	PRIMENET	PRIMENET
RJE terminals emulated	—	No	No	2780/3780	2780/3780
IBM 3270 emulation	—	No	No	—	—
SOFTWARE SUPPORT					
Cobol	No	No	No	Yes	Yes
RPG	No	No	No	Yes	Yes
Fortran	No	Yes	Yes	Yes	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	Pascal	Pascal MT	Pascal MT	PL/1, Pascal	PL/1, Pascal
Multiprogramming	Yes	No	No	Yes	Yes
Max. no. of jobs run concurrently	Unlimited	1	2	128	128
Language complemented in firmware	Yes	Partially	Partially	Yes	Yes
Op. sys. implemented in firmware	No	Partially	Partially	Yes	Yes
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Const., WP	All	All	General business	General business
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Rand., ISAM, seq.	Sequential	Sequential	Random, seq., ISAM	Random, seq., ISAM
Software separately priced	Yes	Some	Some	—	—
Technical help separately priced	Yes	Yes	Yes	—	—
LEASE/MAINTENANCE OPTIONS					
Lease plans available	No	No	No	5-year	5-year
Maintenance plans available	Third-party	Factory ret., third-party	Factory ret., third-party	On-site, on-call	On-site, on-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	16,090	Contact dealer	Contact dealer	54,000 (QMN)	65,500 (HMC)
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	—	—	—	272	368
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	—	Contact dealer	Contact dealer	15,000 (256KB)	15,000 (256KB)
additional workstations, $	—	Contact dealer	Contact dealer	30,000 (1000 lpm)	30,000 (1000 lpm)
additional printer, $	—			Contact vendor	Contact vendor
Discounts available	Blanket, Staircase	Volume	Volume	—	—
Date of first U.S. delivery	January 1981	1977	1977	Second qtr. 1981	Second qtr. 1981
Number installed to date	NA	3500	6000	3000 (all systems)	3000 (all systems)
COMMENTS	*Point 4 has device handlers to support many peripherals not supplied by Point 4; processors include virtual front panels, self-test diagnostics, chassis, power supply	CP/M is optional	CP/M is optional	Protocols supported include Bisync, HASP, 2780/3780, HDLC, 200UT, Univac 1004, Honeywell GRTS, and ICL 7020	Upgradeable to Prime 550, and 750; protocols supported include Bisync, HASP, 2780/3780, HDLC, 200UT, Univac 1004, Honeywell GRTS, and ICL 7020

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MANUFACTURER AND MODEL	Prime 550-II	Prime 750	Prime 850	Prime Information Systems 500	Prime Information Systems 1000
WORD LENGTH, BITS	32	32	32	16, 32	16, 32
CPU					
Model	Prime 550-II	Prime 750	Prime 850	—	—
Add time, microseconds	—	—	—	—	—
No. of I/O ports on basic sys. and max.	—	—	—	—	—
INTERNAL STORAGE					
Type	ECC MOS	ECC MOS	ECC MOS	MOS	MOS
Capacity of basic system, bytes	512K (8K cache)	1M (16K cache)	2M (32K cache)	256K	512K
Maximum capacity, bytes	4M	8M	8M	572K	8M
Increment size, bytes	256K, 512K, 1M	512K, 1M	512K, 1M	256K	64K, 256K
Cycle/access time, microseconds	1.0 (32 bits)	1.0 (64 bits)	1.0 (64 bits)	600 ns.	600 ns.
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; 300K bytes	Opt.; 300K bytes	Opt.; 300K bytes	—	—
Maximum diskette storage	600K bytes	600K bytes	600K bytes	—	—
Cartridge disk drive	Opt.; to 768M bytes	Opt.; to 768M bytes	Opt.; to 768M bytes	Std.; 32-96M bytes	Std.; 32-96M bytes
Pack disk drive	Opt.; to 2400M bytes	Opt.; to 2400M bytes	Opt.; to 2400M bytes	—	—
Fixed-head disk/drum	Opt.; to 2M bytes	Opt.; to 2M bytes	Opt.; to 2M bytes	—	—
Maximum disk storage	2400M bytes	2400M bytes	2400M bytes	192M bytes	2.4B bytes
WORKSTATIONS					
Maximum number connectable	64	96	128	12	63
Recommended maximum number	64	96	128	12	63
Keyboard style	Typewriter	Typewriter	Typewriter	Type., num. key.	Type., num. key.
Workstation printer	Optional	Optional	Optional	—	—
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 55 cps	Opt.; 55 cps	Opt.; 55 cps	—	—
Line printer	Opt.; 200-1000 lpm	Opt.; 200-1000 lpm	Opt.; 200-1000 lpm	Std.; 300 lpm	Std.; 300 lpm
Reel-to-reel tape drive	Opt.; 556/6250 bpi	Opt.; 556/6250 bpi	Opt.; 556/6250 bpi	Opt.; 800/1600 bpi	Opt.; 800/1600 bpi
Cassette/cartridge tape drive	No	No	No	—	—
CRT	Opt.; 24 x 80 char.	Opt.; 24 x 80 char.	Opt.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	Punched card reader	Punched card reader	Punched card reader	—	—
COMMUNICATIONS					
Maximum no. of lines	64	96	128	4	20
Synchronous	Std.; 56K bps	Std.; 56K bps	Std.; 56K bps	—	—
Asynchronous	Std.; 9600 bps	Std.; 9600 bps	Std.; 9600 bps	—	—
Protocols supported	Async, Bisync	Async, Bisync	Async, Bisync	HASP II, RJE, X.25	HASP II, RJE, X.25
Network architecture supported	PRIMENET, X.25	PRIMENET, X.25	PRIMENET, X.25	PRIMENET	PRIMENET
RJE terminals emulated	HASP, 2780/3780	HASP, 2780/3780	HASP, 2780/3780	—	—
IBM 3270 emulation	Yes	Yes	Yes	—	—
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	Yes	Yes	Yes	Yes	Yes
Fortran	Yes	Yes	Yes	No	No
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	No	No
Other programming languages	PL/1, Pascal	PL/1, Pascal	PL/1, Pascal	INFORM	INFORM
Multiprogramming	Yes; 63 partitions	Yes; 63 partitions	Yes	—	—
Max. no. of jobs run concurrently	63	63	—	—	—
Language complemented in firmware	Partially	Partially	Partially	Yes	Yes
Op. sys. implemented in firmware	Partially	Partially	Partially	Yes	Yes
General accounting packages	No	No	No	Yes	Yes
Industry application areas	General business	General business	General business	General business	General business
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Rand., seq., index	Rand., seq., index	Rand., seq., index	Random, seq., ISAM	Random, seq., ISAM
Software separately priced	Yes	Yes	Yes	Yes	—
Technical help separately priced	Yes	Yes	Yes	—	—
LEASE/MAINTENANCE OPTIONS					
Lease plans available	5-year	5-year	5-year	—	—
Maintenance plans available	On-site, on-call	On-site, on-call	On-site, on-call	—	—
PRICING & AVAILABILITY					
Purchase price of basic system, $	89,000 (HMC)	154,000 (1MC)	295,000 (2MC)	63,000	118,000
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	499	1,049	2,065	—	—
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	40,000 (1MB)	40,000 (1MB)	40,000 (1MB)	—	—
additional workstations, $	—	—	—	—	—
additional printer, $	30,000 (1000 lpm)	30,000 (1000 lpm)	30,000 (1000 lpm)	—	—
Discounts available	—	—	—	—	—
Date of first U.S. delivery	1979	1979	1979	1979	1979
Number installed to date	3000 (all systems)	3000 (all systems)	3000 (all systems)	NA	NA
COMMENTS	Protocols supported include Bisync, HASP, 2780/3780 HDLC, 200UT, Univac 1004, Honeywell GRITS, and ICL 7020	See 550-II Comments	See 550-II Comments		

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MANUFACTURER AND MODEL	Prime Information Systems 5000	Prodigy Systems Prodigy I	Prodigy Systems Prodigy II	Programmed Control Corp. PROPHET 21-Model 2	Programmed Control Corp. PROPHET 21-Extended Mod. 2
WORD LENGTH, BITS	16, 32	8	8	16	16
CPU					
Model	—	Zilog Z80A	Zilog Z80A	TI 990/10	TI 990/10
Add time, microseconds	—	—	—	2.8 (16 bits)	2.8 (16 bits)
No. of I/O ports on basic sys. and max.	—	3	3	1, 128	1, 128
INTERNAL STORAGE					
Type	MOS	—	—	MOS	MOS
Capacity of basic system, bytes	1M	32K	64K	64K	64K
Maximum capacity, bytes	8M	64K	64K	2048K	2048K
Increment size, bytes	64K, 256K	16K	—	64K	64K
Cycle/access time, microseconds	600 nano.	—	—	0.6	0.6
MASS STORAGE					
Floppy disk (diskette) drive	—	Std.; (2) 1M bytes	Std.; (2) 1M bytes	Optional	Optional
Maximum diskette storage	—	3M bytes	3M bytes	2M bytes	2M bytes
Cartridge disk drive	Std.; 32-96M bytes	—	—	No	No
Pack disk drive	—	—	—	Std.; 25-50M bytes	Std.; 200M bytes
Fixed-head disk/drum	—	—	—	No	No
Maximum disk storage	2.4B bytes	20MB (Winchester)	20MB (Winchester)	800M bytes	3200M bytes
WORKSTATIONS					
Maximum number connectable	63	1	2	64	64
Recommended maximum number	63	1	2	64	64
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	—	Optional	Optional	Optional	Optional
INPUT/OUTPUT DEVICES					
Serial printer	—	Std.; 120 cps	Std.; 120 cps	Opt.; 180 cps	Opt.; 180 cps
Line printer	Std.; 600 lpm	Opt.; 300 lpm	Opt.; 300 lpm	Opt.; 300-600 lpm	Opt.; 300-600 lpm
Reel-to-reel tape drive	Opt.; 800/1600 bpi	—	—	No	No
Cassette/cartridge tape drive	—	—	—	No	No
CRT	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 24 x 80 char.*	Std.; 24 x 80 char.*
Other	—	—	—	No	No
COMMUNICATIONS					
Maximum no. of lines	45	—	—	12	12
Synchronous	—	—	—	Standard	Standard
Asynchronous	—	Up to 4800 bps	—	Opt.; to 9600 bps	Opt.; to 9600 bps
Protocols supported	HASP II, RJE, X.25	—	—	—	—
Network architecture supported	PRIMENET	—	—	Prophet 21	Prophet 21
RJE terminals emulated	—	—	—	No	No
IBM 3270 emulation	—	—	—	No	No
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	No	No
RPG	Yes	Yes	Yes	No	No
Fortran	No	Yes	Yes	No	No
Basic	Yes	Yes	Yes	No	No
Assembler	No	Yes	Yes	No	No
Other programming languages	INFORM	Protege	Protege	Prophet 21	Prophet 21
Multiprogramming	—	No	No	Yes (128 partitions)	Yes (128 partitions)
Max. no. of jobs run concurrently	—	2	3	64	64
Language complemented in firmware	Yes	No	—	No	No
Op. sys. implemented in firmware	Yes	No	—	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	General business	General-purpose	General-purpose	Distribution, whsl.	Distribution, whsl.
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Random, seq., ISAM	Yes	Yes	Random, seq., ISAM	Random, seq., ISAM
Software separately priced	—	Yes	Yes	No	No
Technical help separately priced	—	Yes	Yes	No	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	—	3 to 5 years	3 to 5 years	NA	NA
Maintenance plans available	—	Yes	Yes	Yes	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	296,200	9,995	12,490	59,000	97,500
Monthly rental of basic system, $	—	—	—	Purchase only	Purchase only
Monthly maint. price of basic system, $	—	940	1,190	495	595
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	—	1,500 (16KB)	—	—	—
additional workstations, $	—	4,000	—	5,250	5,250
additional printer, $	—	1,000	1,000	7,000 (180 cps)	7,000 (180 cps)
Discounts available	—	Contact vendor	Contact vendor	No	No
Date of first U.S. delivery	1979	1979	1980	July 1977	May 1979
Number installed to date	NA	175	30	NA	NA
COMMENTS				Turnkey system is marketed nationwide and in Canada; *optional 18 x 132-char. CRT is available	Turnkey system is marketed nationwide and in Canada; *optional 18 x 132-char. CRT is available

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MANUFACTURER AND MODEL	Quodata Q 521	Quodata Q 850	Quodata Q 990	Rexon RX-15	Rexon RX-20
WORD LENGTH, BITS	16	16	32	16	16
CPU					
Model	DEC PDP-11/23+	DEC PDP-11/44	DEC VAX-11	Intel 8086	Intel 8086
Add time, microseconds	3.0	2.16	Variable	1.2 (5 digits)	1.2 (5 digits)
No. of I/O ports on basic sys. and max.	4, 6	—	—	6, 12	6, 12
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	256K	512K	512K	64K	64K
Maximum capacity, bytes	1024K	1024K	8M	128K	256K
Increment size, bytes	128K	256K	512K	64K	—
Cycle/access time, microseconds	0.9/0.45	0.3	Variable	0.6/0.25	0.6/0.25
MASS STORAGE					
Floppy disk (diskette) drive	Optional	Optional	Optional	No	No
Maximum diskette storage	2M bytes	2M bytes	2M bytes	—	—
Cartridge disk drive	Standard	Optional	Optional	Std.; 10M bytes	Std.; (1) 10M bytes
Pack disk drive	Optional	Std.; 56M bytes (2)	Std.; 67M bytes	—	No
Fixed-head disk/drum	Optional	Optional	Optional	—	No
Maximum disk storage	—	—	—	20M bytes	128M bytes
WORKSTATIONS					
Maximum number connectable	16	64	200	4	8
Recommended maximum number	6-8	32	100	4	8
Keyboard style	Variable	Variable	Variable	Type., num. key.	Type., num. key.
Workstation printer	Opt.; 8 max.	Opt.; 8 max.	Optional	Optional (4)	Opt.; 4
INPUT/OUTPUT DEVICES					
Serial printer	Optional	Opt.; 180 cps	Opt.; 180 cps	Opt.; (2) 150 cps	Opt.; (2) 150 cps
Line printer	Optional	Opt.; 100-900 lpm	Opt.; 300-900 lpm	Opt.; (2) 300 lpm	Opt.; (2) 300 lpm
Reel-to-reel tape drive	Optional	Optional	Standard	—	No
Cassette/cartridge tape drive	Optional	No	No	—	No
CRT	Opt.; 24 x 80 char.	Opt.; 1920 char.	Opt.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.
Other	—	—	—	—	No
COMMUNICATIONS					
Maximum no. of lines	32	63	63	4	4
Synchronous	Optional	Optional	Optional	Bisync (Mid 1982)	No
Asynchronous	Standard	Std.; to 9600 bps	Std.; to 9600 bps	Std.; 100-9600 bps	Std.; 100-9600 bps
Protocols supported	Bisync, SDLC	Bisync, SDLC	Bisync, SDLC	No	Bisync (Mid 1982)
Network architecture supported	DECnet	DECnet	DECnet	No	No
RJE terminals emulated	3780, HASP	3780, HASP	3780, HASP	No	No
IBM 3270 emulation	Yes	Yes	Yes	No	No
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	No	No
RPG	Yes	Yes	Yes	No	No
Fortran	Yes	Yes	Yes	No	No
Basic	Yes	Yes	Yes	Yes, Bus. Basic	Business BASIC
Assembler	Yes	Yes	Yes	No	No
Other programming languages	Focal	APL, Pascal, DIB	APL, Pascal, DIB	None	None
Multiprogramming	Yes	Yes, 63 partitions	Yes	Yes	Yes; 9 partitions
Max. no. of jobs run concurrently	—	—	—	5	9
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	Partially	Partially
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Educ., non-profit	Educ., non-profit	Educ., non-profit	Med., mfg., dist.	Mfg., dist., health
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Rand., seq., ISAM	Rand., seq., ISAM	Random, seq., ISAM	Seq., rand., indexed	Seq., rand., indexed
Software separately priced	Yes	Yes	Yes	Yes (applications)	Yes (applications)
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Contact vendor	Contact vendor	Contact vendor	Third-party	Third-party
Maintenance plans available	—	—	—	Contract or on-call	Contract or on-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	36,000	88,000	141,000	19,700	23,500
Monthly rental of basic system, $	—	—	—	Third-party dep.	Third-party
Monthly maint. price of basic system, $	—	—	—	185	195
Monthly maint. bundled with rental, $	—	—	—	—	No
Purchase price of:					
additional memory module, $	—	—	—	2,000 (64KB)	2,500 (192KB)
additional workstations, $	—	—	—	2,000	2,000
additional printer, $	—	—	—	2,350 (120 cps)	3,000 (150 lpm)*
Discounts available	—	—	—	No	No
Date of first U.S. delivery	1979	1973	1976	January 1981	May 1980
Number installed to date	50	Over 50	NA	300+	150+
COMMENTS	Word processing and data management available as options	See Q 990 Comments	Data management and word processing specifically designed for educational institutions, government entities, and non-profit organizations	Basic system includes terminal, printer, and system software; application software by software house or Rexon dealers	Application software by indep. software house and Rexon dealers; *$7,200 (300 lpm)

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MANUFACTURER AND MODEL	Rexon RX-30	Scientific Data Systems SDS 420A	Scientific Data Systems SDS 422A	Scientific Data Systems SDS 432A	Scientific Data Systems SDS 432B
WORD LENGTH, BITS	16	8	8	8	8
CPU					
Model	Intel 8086	Rockwell 6502A	Rockwell 6502A	Rockwell 6502A	Rockwell 6502A
Add time, microseconds	1.2 (5 digits)	1.0 (8 bits)	1.0 (8 bits)	1.0 (8 bits)	1.0 (8 bits)
No. of I/O ports on basic sys. and max.	6, 12	2	2, 16	2, 16	2, 16
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	64K	32K	60K	60K	60K
Maximum capacity, bytes	256K	56K	60K	60K	60K
Increment size, bytes	64K	24K	24K	24K	24K
Cycle/access time, microseconds	0.6/0.25	0.5/0.25	0.5/0.25	0.5/0.25	0.5/0.25
MASS STORAGE					
Floppy disk (diskette) drive	No	Std.; 1.25M bytes	Std.; 1.25M bytes	Std.; 1.25M bytes	Std.; 1.25M bytes
Maximum diskette storage	—	2.5M bytes	2.5M bytes	2.5M bytes	2.5M bytes
Cartridge disk drive	Std.; (1) 20M bytes	—	—	—	—
Pack disk drive	No	—	—	—	—
Fixed-head disk/drum	No	—	—	Std.; 31MB Winch.	Std.; 31MB Winch.
Maximum disk storage	148M bytes	2.5M bytes	2.5M bytes	33.5M bytes	33.5M bytes
WORKSTATIONS					
Maximum number connectable	8	1	1	1	250
Recommended maximum number	8	—	—	—	Config. depen.
Keyboard style	Type., num. key.	Typewriter	Typewriter	Typewriter	Typewriter
Workstation printer	Opt.; 8	Opt., dot-matrix or formed-character printer	Opt., dot-matrix or formed-character printer	Opt., dot-matrix or formed-character printer	Opt., dot-matrix or formed-character printer
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; (4) 150 cps	Opt.; 120-150 cps	Opt.; 120-150 cps	Opt.; 120-150 cps	Opt.; 120-150 cps
Line printer	Opt.; (4) 300 lpm	Opt.; 300 lpm	Opt.; 300 lpm	Opt.; 300 lpm	Opt.; 300 lpm
Reel-to-reel tape drive	No	—	Opt.; to 1600 bpi	Opt.; to 1600 bpi	Opt.; to 1600 bpi
Cassette/cartridge tape drive	No	—	—	—	—
CRT	Std.; 1920 char.	Std.; 25 x 80 char.	Std.; 25 x 80 char.	Std.; 25 x 80 char.	Std.; 25 x 80 char.
Other	No	—	Opt. paper tape reader	Opt. paper tape reader	Opt. paper tape reader
COMMUNICATIONS					
Maximum no. of lines	8	1	1	10	10
Synchronous	No	—	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps
Asynchronous	Std.; 110-9600 bps	Standard	Standard	Standard	Standard
Protocols supported	Bisync (Mid 1982)	Async	Async, Bisync	Async, Bisync	Async, Bisync
Network architecture supported	No	—	—	SDSNET	SDSNET
RJE terminals emulated	No	—	Optional	Optional	Optional
IBM 3270 emulation	No	—	Optional	Optional	Optional
SOFTWARE SUPPORT					
Cobol	No	No	No	No	No
RPG	No	No	No	No	No
Fortran	No	No	No	No	No
Basic	Business BASIC	Yes	Yes	Yes	Yes
Assembler	No	Yes	Yes	Yes	Yes
Other programming languages	None	—	Pascal	Pascal	Pascal
Multiprogramming	Yes; 9 partitions	No	No	No	Multiprocessing
Max. no. of jobs run concurrently	9	—	—	—	250
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	Partially	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Mfg., dist., health	Acctg., billing, WP	Acctg., billing, WP	Acctg., billing, WP	Acctg., billing, WP
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Seq., rand., indexed	Rand., seq., B-Tree	Rand., seq., B-Tree	Rand., seq., B-Tree	Rand., seq., B-Tree
Software separately priced	Yes (applications)	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Third-party	Third-party	Third-party	Third-party	Third-party
Maintenance plans available	Contract or on-call	On-site, on-call	On-site, on-call	On-site, on-call	On-site, on-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	27,900	5,150	9,400	18,400	19,900
Monthly rental of basic system, $	Third-party	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Monthly maint. price of basic system, $	220	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Monthly maint. bundled with rental, $	No	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Purchase price of:					
additional memory module, $	2,500 (192KB)	Contact vendor	Contact vendor	Contact vendor	Contact vendor
additional workstations, $	2,000	Contact vendor	Contact vendor	Contact vendor	Contact vendor
additional printer, $	3,000 (150 lpm)*	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Discounts available	No	Dealer, OEM	Dealer, OEM	Dealer, OEM	Dealer, OEM
Date of first U.S. delivery	July 1979	November 1979	November 1979	June 1980	June 1981
Number installed to date	500+	350	350	25	50
COMMENTS	Application software by indep. software house and Rexon dealers; *$7,200 (300 lpm)				

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MANUFACTURER AND MODEL	Scientific Data Systems SDS 442A	Sentinel Computer Model 10	Sentinel Computer Model 30	Sentinel Computer Model 40	Sentinel Computer Model 50
WORD LENGTH, BITS	8	16	16	16	16
CPU					
Model	Rockwell 6502A	Intel 8086	Intel 8086	Intel 8086	Intel 8086
Add time, microseconds	1.0 (8 bits)	0.6 (16 bits)	0.6 (16 bits)	0.6 (16 bits)	0.6 (16 bits)
No. of I/O ports on basic sys. and max.	2, 16	5, 17	5, 17	5, 17	5, 17
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	60K	160K	96K	160K	160K
Maximum capacity, bytes	60K	1M	1M	1M	1M
Increment size, bytes	24K	32K, 64K, 128K	32K, 64K, 128K	32K, 64K, 128K	32K, 64K, 128K
Cycle/access time, microseconds	0.5/0.25	200 nano.	200 nano.	200 nano.	200 nano.
MASS STORAGE					
Floppy disk (diskette) drive	Std.; 1.25M bytes	Std.; (2) 800KB	Std.; (1) 800KB	Std.; (1) 800KB	Std.; (1) 800KB
Maximum diskette storage	2.5M bytes	6.4M bytes	6.4M bytes	6.4M bytes	6.4M bytes
Cartridge disk drive	—	—	—	—	—
Pack disk drive	—	—	Opt.; 1200M bytes	Opt.; 1200M bytes	Opt.; 1200M bytes
Fixed-head disk/drum	Std.; 62MB Winch.	—	Std.; (1) 14.5MB	Std.; (1) 29MB	Std.; (1) 29MB
Maximum disk storage	64.5M bytes	—	1200M bytes	1200M bytes	1200M bytes
WORKSTATIONS					
Maximum number connectable	1	17	17	17	17
Recommended maximum number	—	—	—	—	—
Keyboard style	Typewriter	Alphanum., num.	Alphanum., num.	Alphanum., num.	Alphanum., num.
Workstation printer	Opt. dot-matrix or formed-character printer	Standard	Standard	Standard	Standard
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 120-150 cps	Opt.; 150 cps	Opt.; 150 cps	Opt.; 150 cps	Opt.; 150 cps
Line printer	Opt.; 300 lpm	Opt.; 300-600 lpm	Opt.; 300-600 lpm	Opt.; 300-600 lpm	Opt.; 300-600 lpm
Reel-to-reel tape drive	Opt.; to 1600 bpi	Opt.; (2) 100 ips*	Opt.; (2) 100 ips*	Opt.; (2) 100 ips*	Opt.; (2) 100 ips*
Cassette/cartridge tape drive	—	—	—	—	—
CRT	Std.; 25 x 80 char.	Std.; (1) 1920 ch.	Std.; (1) 1920 ch.	Std.; (2) 1920 ch.	Std.; (4) 1920 ch.
Other	Opt.; paper tape reader	—	—	—	—
COMMUNICATIONS					
Maximum no. of lines	10	16	16	16	16
Synchronous	Opt.; to 9600 bps	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; 9600 bps
Asynchronous	Standard	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; 9600 bps
Protocols supported	Async, Bisync	2780/3780	2780/3780	2780/3780	2780/3780
Network architecture supported	SDSNET	—	—	—	—
RJE terminals emulated	Optional	—	—	—	—
IBM 3270 emulation	Optional	Yes	Yes	Yes	Yes
SOFTWARE SUPPORT					
Cobol	No	Yes	Yes	Yes	Yes
RPG	No	No	No	No	No
Fortran	No	No	No	No	No
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	No	No	No	No
Other programming languages	Pascal	DBL	DBL	DBL	DBL
Multiprogramming	No	Yes, 34 partitions	Yes, 34 partitions	Yes, 34 partitions	Yes, 34 partitions
Max. no. of jobs run concurrently	—	34	34	34	34
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Acctg., billing, WP	Whsl., dist., med.	Whsl., dist., med.	Whsl., dist., med.	Whsl., dist., med.
Data base management system	Yes	Yes	Yes	Yes	Yes
File access methods supported	Rand., seq., B-Tree	DATABASE	DATABASE	DATABASE	DATABASE
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	No	No	No	No
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Third-party	Up to 5 years	Up to 5 years	Up to 5 years	Up to 5 years
Maintenance plans available	On-site, on-call	Contact vendor	Contact vendor	Contact vendor	Contact vendor
PRICING & AVAILABILITY					
Purchase price of basic system, $	27,400	16,000	25,300	32,800	41,900
Monthly rental of basic system, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Monthly maint. price of basic system, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Monthly maint. bundled with rental, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Purchase price of:					
additional memory module, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
additional workstations, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
additional printer, $	Contact vendor	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Discounts available	Dealer, OEM	Contact vendor	Contact vendor	Contact vendor	Contact vendor
Date of first U.S. delivery	June 1980	1981	1979	1979	1980
Number installed to date	5	150 (all models)	150 (all models)	150 (all models)	150 (all models)
COMMENTS		Interactive Query and Report Writer System available for all models;**streaming tape drive	See Model 10 Comments	See Model 10 Comments	See Model 10 Comments

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MANUFACTURER AND MODEL	Sentinel Computer Model 80	Sharp Electronics YX-3200	Sperry Univac BC/7-600	Sperry Univac BC/7-700	Sperry Univac BC/7-800
WORD LENGTH, BITS	16	8	8	8	8
CPU					
Model	Intel 8086	Zilog Z80	Univac T3038	Univac T3038	Univac T3038
Add time, microseconds	0.6 (16 bits)	—	106 (5 digits)	106 (5 digits)	106 (5 digits)
No. of I/O ports on basic sys. and max.	5, 17	2, 8	3, 12	3, 12	3, 12
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOSFET
Capacity of basic system, bytes	160K	64K	48K	48K	128K
Maximum capacity, bytes	1M	112K	64K	64K	128K
Increment size, bytes	32K, 64K, 128K	48K	16K	16K	16K
Cycle/access time, microseconds	200 nano.	—	1.0/0.5	1.0/0.5	1.0/0.5
MASS STORAGE					
Floppy disk (diskette) drive	Std.; (1) 800KB	Std.; 500K bytes	Standard	Optional	Optional
Maximum diskette storage	64M bytes	8M bytes	6M bytes	4M bytes	4M bytes
Cartridge disk drive	—	—	No	Opt.; 40M bytes	Opt.; 40M bytes
Pack disk drive	Std.; 80M bytes	—	No	No	No
Fixed-head disk/drum	Opt.; to 116MB	—	No	No	No
Maximum disk storage	1200M bytes	8M bytes	—	40M bytes	40M bytes
WORKSTATIONS					
Maximum number connectable	17	1	4	4	6
Recommended maximum number	—	1	2	4	6
Keyboard style	Alphanum., num.	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	Standard	—	—	—	Opt.; 6 max.
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 150 cps	—	Std.; 200 cps	Std.; 200 cps	Std.; 200 cps
Line printer	Opt.; 300-600 lpm	Opt.; 80-150 cps	Opt.; 180 lpm	Opt.; 180-640 lpm	Opt.; 180-640 lpm
Reel-to-reel tape drive	Opt.; (2) 100 ips*	—	No	Opt.; 20, 40KBS	Opt.; 20, 40KBS
Cassette/cartridge tape drive	—	—	No/No	No/No	No/No
CRT	Std.; (2) 1920 ch.	Std.; 24 x 80 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.
Other	—	—	Punched card reader	Punched card reader	Punched card reader
COMMUNICATIONS					
Maximum no. of lines	16	4	2	2	2
Synchronous	Opt.; 9600 bps	Opt.; 9600 bps	Std.; to 9600 bps	Std.; to 9600 bps	Std.; to 9600 bps
Asynchronous	Opt.; 9600 bps	Opt.; 9600 bps	Opt.; 110-9600 bps	Opt.; 110-9600 bps	Opt.; 110-9600 bps
Protocols supported	2780/3780	—	Bisync, Sync	Bisync, Sync	Bisync, Sync
Network architecture supported	—	—			—
RJE terminals emulated	—	—	See Comments	See Comments	See Comments
IBM 3270 emulation	Yes	No	Yes	Yes	Yes
SOFTWARE SUPPORT					
Cobol	Yes	No	No	No	No
RPG	No	No	Yes	Yes	Yes
Fortran	No	No	No	No	No
Basic	Yes	Yes	No	No	No
Assembler	No	Yes	No	No	No
Other programming languages	DBL	APL, CP/M	ESCORT	ESCORT	ESCORT
Multiprogramming	Yes, 34 partitions	No	Yes, 2 partitions	Yes, 2 partitions	Yes, 2 partitions
Max. no. of jobs run concurrently	34	1	2	4	4
Language complemented in firmware	No	Yes	Partially	Partially	Partially
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Whsl., dist., med.	—	Dist., manufacturing	Dist., manufacturing	Dist., manufacturing
Data base management system	Yes	No	No	No	No
File access methods supported	DATABASE	Random, seq.	Rand., seq., ISAM	Rand., seq., ISAM	Rand., seq., ISAM
Software separately priced	Yes	Yes	Partly	Partly	Partly
Technical help separately priced	No	No	Partly	Partly	Partly
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Up to 5 years	—	1 or 5 yrs.	1 or 5 yrs.	1 or 5 yrs.
Maintenance plans available	Contact vendor	—	Various	Various	Various
PRICING & AVAILABILITY					
Purchase price of basic system, $	45,950	4,495	17,162	21,800	34,900
Monthly rental of basic system, $	Contact vendor	—	489	678	1,077
Monthly maint. price of basic system, $	Contact vendor	—	169	161	252
Monthly maint. bundled with rental, $	Contact vendor	—	No	No	No
Purchase price of:					
additional memory module, $	Contact vendor	—	900 (16KB)	900 (16KB)	900 (16KB)
additional workstations, $	Contact vendor	—	3,225	3,225	3,225
additional printer, $	Contact vendor	—	5,238 (200 cps)	5,238 (200 cps)	5,238 (200 cps)
Discounts available	Contact vendor	—	—	—	—
Date of first U.S. delivery	1981	April 1981	July 1978	March 1977	July 1978
Number installed to date	150 (all models)	NA	200	1000	650
COMMENTS	See Model 10 Comments		Supports up to 4 workstations; entirely diskette based; emulates the following RJE terminals: 2780/3780, HASP, 1004, 9300 NTR, DCT 1000/2000	Supports up to 4 workstations; disk-based; magnetic tape and diskettes for I/O; see BC/7-600 Comments for RJE emulation	Supports up to 6 workstations; two applic. programs and print spooling can be run concurrently; see BC/7-600 Comments for RJE emulation

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MANUFACTURER AND MODEL	Sperry Univac BC/7-900	STC Systems Inc. System 4000	STC Systems Inc. System 5000	STC Systems Inc. System 6000	Symcro Systems, Inc. SB 700
WORD LENGTH, BITS	8	16	16	16	—
CPU					
Model	Univac T3038	DG Nova 4	DG Nova 4	DG Nova 4	Mult. Zilog Z80As
Add time, microseconds	65 (5 digits)	0.7	0.7	0.7	
No. of I/O ports on basic sys. and max.	3, 14	8, 32	8, 32	16, 32	6, 200
INTERNAL STORAGE					
Type	MOSFET	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	256K	64K	64K	256K	256K
Maximum capacity, bytes	256K	64K	512K	512K	16M
Increment size, bytes	—	32K	32K, 64K, 128K	128K, 256K	64K
Cycle/access time, microseconds	1.0/0.5	0.7/0.35	0.7/0.35	0.7/0.35	0.75
MASS STORAGE					
Floppy disk (diskette) drive	Optional	NA	NA	NA	Std.; 1M bytes
Maximum diskette storage	4M bytes	—	—	—	1M bytes
Cartridge disk drive	Opt.; 40M bytes	Std.; 12M-48M bytes	Opt.; 32M-64M bytes	Std.; 600M bytes	—
Pack disk drive	No	Opt.; 32M-320M bytes	Std.; 80M-320M bytes	Opt.; 600-1200MB	—
Fixed-head disk/drum	Opt.; 100M bytes	NA	NA	NA	Std.; 20M bytes
Maximum disk storage	140M bytes	320M bytes (4 drives)	320M bytes (4 drives)	1200M bytes (4 drives)	600M bytes
WORKSTATIONS					
Maximum number connectable	8	3	40	40	256
Recommended maximum number	8	3	40	40	200 (simultaneous)
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	Opt.; 8 max.	Optional slave prntr.	Optional slave prntr.	Optional slave prntr.	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 200 cps	Std.; 165 cps	Std.; 165 cps	Std.; 165 cps	Std.; 155 cps
Line printer	Opt.; 180-640 lpm	Opt.; 300-900 lpm	Opt.; 300-900 lpm	Opt.; 600-900 lpm	Opt.; 300-600 lpm
Reel-to-reel tape drive	Opt.; 20, 40 KBS	Opt.; 800-1600 bpi	Opt.; 800-1600 bpi	Opt.; 800-1600 bpi	NA
Cassette/cartridge tape drive	No/No	NA	NA	NA	Opt.; 22,222 bps
CRT	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	TV 912C, 1920 ch.
Other	—	—	—	—	
COMMUNICATIONS					
Maximum no. of lines	2	Unlimited	Unlimited	Unlimited	200
Synchronous	Std.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps	Opt.; to 9600 bps	—
Asynchronous	Opt.; to 9600 bps	Opt.; to 1200 bps	Opt.; to 1200 bps	Opt.; to 1200 bps	Up to 9600 bps
Protocols supported	Bisync, Sync	Bisync	Bisync	Bisync	RS-232-C
Network architecture supported	—	—	—	—	
RJE terminals emulated	See Comments	2780/3780	2780/3780	2780/3780	—
IBM 3270 emulation	Yes	Yes	Yes	Yes	Yes
SOFTWARE SUPPORT					
Cobol	No	No	No	No	Yes
RPG	Yes	Yes	Yes	Yes	No
Fortran	No	No	No	No	Yes
Basic	No	Yes	Yes	Yes	Yes
Assembler	No	Yes	Yes	Yes	Yes
Other programming languages	ESCORT	STC/S SKILLWRTR.	STC/S SKILLWRTR.	STC/S SKILLWRTR.	CBASIC, PL/1, Pascal
Multiprogramming	Yes, 4 partitions	Yes, 8 partitions	Yes, 50 partitions	Yes, 50 partitions	Config. depen.
Max. no. of jobs run concurrently	5	Varies	Varies	Varies	200
Language complemented in firmware	Partially	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	Partially
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Dist., manufacturing	Dist., publ., appar.	Dist., publ., appar.	Dist., publ., appar.	Mfg., ins., whls.
Data base management system	No	Yes	Yes	Yes	Yes
File access methods supported	Rand., seq., ISAM	Seq., random, ISAM	Rand., seq., ISAM	Rand., seq., ISAM	Random, seq.
Software separately priced	Partly	No	No	No	Yes
Technical help separately priced	Partly	No	No	No	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	1 or 5 yrs.	36, 48, 66 mos.	36, 48, 66 mos.	36, 48, 66 mos.	No
Maintenance plans available	Various	On-call, third-party	On-call, third-party	On-call, third-party	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	40,900	34,900	51,000	183,000	15,115
Monthly rental of basic system, $	1,290	—	—	—	408
Monthly maint. price of basic system, $	287	345	435	1,145	190
Monthly maint. bundled with rental, $	No	—	—	—	598
Purchase price of:					
additional memory module, $	900 (16KB)	3,800 (32KB)	3,800 (32KB)	12,500 (128KB)	1,495 (64KB)
additional workstations, $	3,225	2,600	2,600	2,600	900
additional printer, $	5,238 (200 cps)	9,300 (300 lpm)	9,300 (300 lpm)	21,000 (900 lpm)	3,025 (letter-qual.)
Discounts available	—	NA	NA	NA	Yes
Date of first U.S. delivery	June 1980	1973	1974	1982	April 1981
Number installed to date	50	125	125	NA	NA
COMMENTS	Supports up to 8 workstations, 4 application programs, and print spooling can be run concurrently; see BC/7-600 Comments for RJE emulation	System price includes all hardware, software, installation, training, and maintenance (1 year on software, 90 days on hardware)	System price includes all hardware, software, installation, training, and maintenance (1 year on software, 90 days on hardware)	System price includes training, installation, hardware, software, and maintenance (1 year on software, 90 days on hardware)	Users add applications processor modules to add simultaneous jobs; system is a multiple microprocessor system

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MANUFACTURER AND MODEL	Systems Group 2800	TECHNICO SS16	TECHNICO T.I. 32-8H	TECHNICO T.I. 32-14H	TeleVideo Systems TS 800
WORD LENGTH, BITS	8	16	16 (dual) See Comments	16 (dual) See Comments	8
CPU					
Model	Zilog Z80	9900	9900	9900	Zilog Z80A
Add time, microseconds	—	4.2	4.2	4.2	—
No. of I/O ports on basic sys. and max.	2, 12	6	6, 18	6, 18	1
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	—	96K	192K (user)	192K (user)	64K
Maximum capacity, bytes	512K	96K	256K	256K	64K
Increment size, bytes	16K	8K to 32K	2K to 32K	2K to 32K	—
Cycle/access time, microseconds	—	0.2	0.2	0.2	—
MASS STORAGE					
Floppy disk (diskette) drive	Standard (dual)	Std.; (2) 1M bytes	Opt.; (2) 1M bytes	Opt.; (2) 1M bytes	—
Maximum diskette storage	1.2M bytes	Opt.; (4) 2M bytes	Opt.; (4) 2M bytes	Opt.; (4) 2M bytes	—
Cartridge disk drive	—	—	—	—	—
Pack disk drive	—	—	—	—	—
Fixed-head disk/drum	Opt.; 10-40M bytes	—	Std.; (1) 10M bytes	Std.; (1) 29M bytes	—
Maximum disk storage	120M bytes	2M bytes	40M bytes	116M bytes	—
WORKSTATIONS					
Maximum number connectable	12	6	18	18	—
Recommended maximum number	8	6	6 to 8	6 to 8	—
Keyboard style	—	Type., num. key.	Type., num. key.	Type., num. key.	Typewriter
Workstation printer	—	Optional	Optional	Optional	Yes
INPUT/OUTPUT DEVICES					
Serial printer	No	Std.; 80 cps	Opt.; 80-180 cps	Opt.; 80-180 cps	Standard
Line printer	No	—	Optional	Optional	—
Reel-to-reel tape drive	No	No	Optional	No	—
Cassette/cartridge tape drive	No	No	Opt.; (4) 40M bytes	Opt.; (4) 40M bytes	—
CRT	No	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; (1) 1920 ch.
Other	No	—	See Comments*	See Comments*	—
COMMUNICATIONS					
Maximum no. of lines	12	6	18	18	—
Synchronous	Optional	Std.; 4800-19.2K bps	Opt.; to 19,200 bps	Opt.; to 19,200 bps	—
Asynchronous	Standard	Std.; 4800-19.2K bps	Opt.; to 19,200 bps	Opt.; to 19,200 bps	—
Protocols supported	3780, SDLC, RS-232-C	—	Opt.; 2780/3780	Opt.; 2780/3780	—
Network architecture supported	Yes	—	Optional	Optional	—
RJE terminals emulated	—	—	Optional	Optional	—
IBM 3270 emulation	Yes	—	Optional	Optional	—
SOFTWARE SUPPORT					
Cobol	Yes	No	Optional	Optional	Yes
RPG	No	No	Optional	Optional	No
Fortran	Yes	Yes	Yes	Yes	No
Basic	Yes	Yes	Yes	Yes	No
Assembler	Yes	Yes	Yes	Yes	No
Other programming languages	—	Pascal, C, Forth	Pascal	Pascal	—
Multiprogramming	Yes	—	Yes, 18 partitions	Yes, 18 partitions	No
Max. no. of jobs run concurrently	—	—	6	6	—
Language complemented in firmware	Yes	Optional	Optional	Optional	No
Op. sys. implemented in firmware	Yes	Yes	Yes	Yes	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Business	Education	Gas stations	Contractors	General-purpose
Data base management system	Yes	Yes	Yes	Yes	No
File access methods supported	ISAM	ISAM, DBMS, QUERY	ISAM, DBMS, QUERY	ISAM, DBMS, QUERY	Yes
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	No	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	3 to 7 years	3 to 7 years	3 to 7 years	3 to 7 years	—
Maintenance plans available	Yes	Depot & field	Depot & field	Depot & field	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	5,035	4,995	16,999	19,999	1,695
Monthly rental of basic system, $	—	Optional	Optional	Optional	—
Monthly maint. price of basic system, $	—	1 percent	1 percent	1 percent	—
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	995 (64KB)	—	1,000 (32KB)	1,000 (32KB)	—
additional workstations, $	—	—	1,300	1,300	—
additional printer, $	—	—	2,300	2,300	—
Discounts available	Yes	OEM or distributor	OEM, 150, distrib.	OEM 150, distrib.	Quantity
Date of first U.S. delivery	1981	January 1976	September 1980	December 1980	August 1981
Number installed to date	NA	2000	50	20	500
COMMENTS			Multiprocessor design uses two 16-bit microprocessors; *CRT models (IBM, DEC, ADM3A, Beehive, Datamedia) may be intermixed within the same system	Multiprocessor design uses two 16-bit microprocessors; *CRT models (IBM, DEC, ADM3A, Beehive, Datamedia) may be intermixed within the same system	

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MANUFACTURER AND MODEL	TeleVideo Systems TS 801	TeleVideo Systems TS 802	TeleVideo Systems TS 802H	TeleVideo Systems TS 806	TeleVideo Systems TS 816
WORD LENGTH, BITS	8	8	8	8	8
CPU					
Model	Zilog Z80A	Zilog Z80A	Zilog Z80A	Zilog Z80A	Zilog Z80A
Add time, microseconds	—	—	—	—	—
No. of I/O ports on basic sys. and max.	2	2	2	2	3
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	64K	64K	64K	64K	64K
Maximum capacity, bytes	64K	64K	64K	64K	64K
Increment size, bytes	—	—	—	—	—
Cycle/access time, microseconds	—	—	—	—	—
MASS STORAGE					
Floppy disk (diskette) drive	Std.; 500K bytes	Std.; 500K bytes	Std.; 500K bytes	Std.; 500K bytes	—
Maximum diskette storage	1M bytes	1M bytes	500K bytes	500K bytes	—
Cartridge disk drive	—	—	—	—	—
Pack disk drive	—	—	—	—	—
Fixed-head disk/drum	—	—	10M bytes	10M bytes	—
Maximum disk storage	1M bytes	1M bytes	10.5M bytes	10.5M bytes	—
WORKSTATIONS					
Maximum number connectable	—	—	—	6	16
Recommended maximum number	—	—	—	6	16
Keyboard style	Typewriter	Typewriter	Typewriter	Typewriter	Typewriter
Workstation printer	Yes	Yes	Yes	Yes	Yes
INPUT/OUTPUT DEVICES					
Serial printer	Standard	Standard	Standard	Standard	—
Line printer	—	—	—	—	—
Reel-to-reel tape drive	—	—	—	—	—
Cassette/cartridge tape drive	—	—	—	—	Standard
CRT	Opt.; (1) 1920 ch.	Std.; (1) 1920 ch.	Std.; (1) 1920 ch.	Opt.; (6) 1920 ch.	Opt.; (16) 1920 ch.
Other	—	—	—	—	—
COMMUNICATIONS					
Maximum no. of lines	1	1	1	1	1
Synchronous	—	—	—	—	—
Asynchronous	Opt.; 50-9600 bps	Opt.; 50-9600 bps	Opt.; 50-9600 bps	Opt.; 50-9600 bps	Opt.; 50-9600 bps
Protocols supported	—	—	—	—	—
Network architecture supported	—	—	—	—	—
RJE terminals emulated	—	—	—	—	—
IBM 3270 emulation	—	—	—	—	—
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	No	No	No	No	No
Fortran	No	No	No	No	No
Basic	No	No	No	No	No
Assembler	No	No	No	No	No
Other programming languages	—	—	—	—	—
Multiprogramming	No	No	No	No	Yes, 16 partitions
Max. no. of jobs run concurrently	—	—	—	—	16
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	General-purpose	General-purpose	General-purpose	General-purpose	General-purpose
Data base management system	No	No	No	No	No
File access methods supported	Yes	Yes	Yes	Yes	Yes
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	—	—	—	—	—
Maintenance plans available	Yes	Yes	Yes	Yes	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	3,295	3,495	6,995	7,195	12,995
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	—	—	—	—	—
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	—	—	—	—	—
additional workstations, $	—	—	—	—	—
additional printer, $	—	—	—	—	—
Discounts available	Quantity	Quantity	Quantity	Quantity	Quantity
Date of first U.S. delivery	August 1981	August 1981	December 1981	August 1981	December 1981
Number installed to date	500	NA	NA	250	NA
COMMENTS					

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MANUFACTURER AND MODEL	Texas Instruments Business System 200	Texas Instruments DS990 Series Model 1	Texas Instruments DS990 Series Model 2	Texas Instruments DS990 Series Model 3	Texas Instruments DS990 Series Model 4
WORD LENGTH, BITS	16	16 + parity	16	16	16
CPU					
Model	TMS9900	TI TMS9900	TI 990/5	TI 990/10	TI 990/10
Add time, microseconds	—	4.67 (2-16 bits)	5.5 (16 bits)	3.6	3.6
No. of I/O ports on basic sys. and max.	—	2, 2	3, 256	—	12, 180
INTERNAL STORAGE					
Type	MOS	MOS, RAM	RAM	MOS	MOS
Capacity of basic system, bytes	64K	64K	64K	96K	128K
Maximum capacity, bytes	64K	64K	64K	352K	2048K
Increment size, bytes	—			64/128/192/256K	64/128/192/256K
Cycle/access time, microseconds	—	0.667/0.667	NA/0.5	0.74	0.74
MASS STORAGE					
Floppy disk (diskette) drive	Std.; (2) 1.2MB	Std.; 1.15M bytes	Std.; (2) 2.3M bytes	Std.; (2) 2.3MB	Opt.; 1M bytes
Maximum diskette storage	1.2M bytes	4.6M bytes	4.6M bytes	4.6M bytes	Opt.; (4) 4.7M bytes
Cartridge disk drive	No	No	No	No	No
Pack disk drive	No	No	9.4M bytes	Opt.; 18.8M bytes	Opt.; (1) 4.7M bytes
Fixed-head disk/drum	Std.; (2) 10MB (Win.)	No	No	No	No
Maximum disk storage	11.2M bytes	—	14M bytes	23.4M bytes	18.8M bytes
WORKSTATIONS					
Maximum number connectable	1	1	1	4	8
Recommended maximum number	1	1	1	4	8
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	Standard	Optional	Optional	Optional	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Std.; 75 cps	Opt.; 150 cps	Opt.; 150 cps	Opt.; 150 cps	Opt.; 150 cps
Line printer	No	—	—	—	Opt.; 300, 600 lpm
Reel-to-reel tape drive	No	No	Opt.; 4 drives	Opt.; 37.5 ips	Opt.; 37.5 ips
Cassette/cartridge tape drive	No	No	No	No	No
CRT	Std.; 24 x 80 char.	Std.; 24 x 80 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.
Other	—	Optional	Opt. card reader	Opt. card reader	Opt. card reader
COMMUNICATIONS					
Maximum no. of lines	—	2	Std.; 3/opt.; 16+	Varies	Varies
Synchronous	—	Opt.; to 4800 bps	Std.; 9600 bps	Opt.; 75 to 9600 bps	Opt.; 75 to 9600 bps
Asynchronous	—	Opt.; to 9600 bps	Std.; 9600 bps	Opt.; 75 to 9600 bps	Opt.; 75 to 9600 bps
Protocols supported	—	Bisync	Bisync	Bisync	Bisync
Network architecture supported	—	—	No	No	—
RJE terminals emulated	—	2780/3780	2780/3780	2780/3780, HDLC	2780/3780, HDLC
IBM 3270 emulation	No	No	No	No	Yes
SOFTWARE SUPPORT					
Cobol	Yes	Yes (Run-Time)	Yes (Run-Time)	Yes	Yes
RPG	No	No	No	No	Yes
Fortran	No	No	No	No	Yes
Basic	No	No	No	No	Yes
Assembler	No	Yes	Yes	Yes	Yes
Other programming languages	Pascal	Pascal	Pascal	—	Pascal
Multiprogramming	No	Yes, 1-4 partitions	No	Yes	Yes, variable
Max. no. of jobs run concurrently	1	6	Varies	Varies	Varies
Language complemented in firmware	—	No	No	No	No
Op. sys. implemented in firmware	—	No	No	No	No
General accounting packages	Yes	Thru TPP's	No	No	No
Industry application areas	General acctg., WP	Thru TPP's	NA	No	No
Data base management system	No	No	No	Yes	Yes, DBMS 990
File access methods supported	—	Rand., seq., keyed	Rand., seq., index	Seq., multi-keyed	Seq., multi-keyed
Software separately priced	Yes	Yes (except TX5-OS)	Yes	Yes	Yes
Technical help separately priced	Yes	No	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	—	90 days; 1 3, 5 yrs.	1, 3, 5 years	1, 3, 5 years	90 days; 1 to 5 yrs.
Maintenance plans available	Yes	On-call, third-party	On-call, third-party	Contract, on-call	Contract, on-call
PRICING & AVAILABILITY					
Purchase price of basic system, $	6,200-9,900	9,995	13,995	15,700	25,950
Monthly rental of basic system, $	—	370 (3-yr. lease)	474 (5-yr. lease)	—	—
Monthly maint. price of basic system, $	62-99	114	172	212	285
Monthly maint. bundled with rental, $	—	Lease only	Lease only	—	—
Purchase price of:					
additional memory module, $	—	NA	NA	2,000 (64KB)	2,000 (64KB)
additional workstations, $	—	—	—	2,300	2,300
additional printer, $	1,055 (75 cps)	1,100 (30 cps)	2,430 (150 cps)	2,705 (150 cps)	2,705 (150 cps)
Discounts available	—	Contact vendor	Contact vendor	Quantity	Quantity
Date of first U.S. delivery	April 1982	April 1979	June 1979	1981	NA
Number installed to date	NA	—	NA	NA	NA
COMMENTS	Four models (220, 240, 250, and 251) differ only in disk storage capacities, which are 1.2MB, 5.6MB, 6.2MB, and 11.2MB, respectively				

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MANUFACTURER AND MODEL	Texas Instruments DS990 Series Model 7	Texas Instruments DS990 Series Model 8	Texas Instruments DS990 Series Model 9	Texas Instrument DS990 Series Model 20	Texas Instrument DS990 Series Model 29
WORD LENGTH, BITS	16	16	16	16	16
CPU					
Model	TI 990/10	TI 990/10	TI 990/10	TI 990/12	TI 990/12
Add time, microseconds	3.6	3.6	3.6	0.552 to 4.16	0.552 to 4.16
No. of I/O ports on basic sys. and max.	—	12, 180	—	20, 188	20, 188
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	128K	128K	128K	256K	256K
Maximum capacity, bytes	2048K	2048K	2048K	2048K	2048K
Increment size, bytes	64/128/192/256K	64/128/192/256K	64/128/192/256K	64/128/192/256K	64/128/192/256K
Cycle/access time, microseconds	0.74	0.74	0.74	0.74 main/0.35 cache	0.74 main/0.35 cache
MASS STORAGE					
Floppy disk (diskette) drive	No	Opt.; 1M bytes	Opt.; 1M bytes	Opt.; 1M bytes	Opt.; 1M bytes
Maximum diskette storage	No	4M bytes	4M bytes	4M bytes	4M bytes
Cartridge disk drive	16M bytes	Opt.; 20M bytes	—	Opt.; 10M bytes	Opt.; 10M bytes
Pack disk drive	No	Std. (dual) 89.2MB	16M bytes	Dual 50M bytes	Dual 50M bytes
Fixed-head disk/drum	16M bytes	NA	80M bytes	NA	NA
Maximum disk storage	32M bytes	178.4M bytes	80.7M bytes	178.4M bytes	161.4M bytes
WORKSTATIONS					
Maximum number connectable	16	16	16	24	24
Recommended maximum number	16	16	16	24	24
Keyboard style	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.	Type., num. key.
Workstation printer	Optional	Optional	Optional	Optional	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 150 cps	Opt.; 150 cps	Opt.; 150 cps	Opt.; 150 cps	Opt.; 150 cps
Line printer	Opt.; to 600 lpm	Opt.; 300, 600 lpm	Opt.; up to 600 lpm	Opt.; 300, 600 lpm	Opt.; up to 600 lpm
Reel-to-reel tape drive	Opt.; 37.5 ips	Opt.; 37.5 ips	Opt.; 37.5 ips	Opt.; 800-1600 bpi	Opt.; 800-1600 bpi
Cassette/cartridge tape drive	No	No	No	No	No
CRT	Std.; 1920 char.	Std.; 1920 char.	Std.; 1920 char.	Std.; (2) 1920 char.	Std.; 1920 char.
Other	Opt. card reader	Opt. card reader	Opt. card reader	—	—
COMMUNICATIONS					
Maximum no. of lines	Varies	Varies	Varies	Varies	Varies
Synchronous	Opt.; 75 to 9600 bps	Opt.; 75 to 9600 bps	Opt.; 75 to 9600 bps	Opt.; 75 to 9600 bps	Opt.; 75 to 9600 bps
Asynchronous	Opt.; 75 to 9600 bps	Opt.; 75 to 9600 bps	Opt.; 75 to 9600 bps	Opt.; 75 to 9600 bps	Opt.; 75 to 9600 bps
Protocols supported	Bisync	Async, Bisync	Async, Bisync	Async, Bisync	Async, Bisync
Network architecture supported	—	NA	NA	NA	NA
RJE terminals emulated	2780/3780, HDLC	2780/3780, HDLC	2780/3780, HDLC	2780/3780	2780/3780
IBM 3270 emulation	Yes	Yes	Yes	Yes	Yes
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	Yes	Yes	Yes	Yes	Yes
Fortran	Yes	Yes	Yes	Yes	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	Pascal	Pascal	Pascal	Pascal	Pascal
Multiprogramming	Yes	Yes, variable	Yes	Yes, variable	Yes
Max. no. of jobs run concurrently	Varies	Variable	Variable	Variable	Variable
Language complemented in firmware	No	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	No	No	No	No	No
Industry application areas	No	No	No	No	No
Data base management system	Yes	Yes, DBMS 990	Yes	Yes, DBMS 990	Yes
File access methods supported	Seq., multi-keyed	Seq., multi-key index	Seq., multi-keyed	Seq., multi-key index	Seq., multi-keyed
Software separately priced	Yes	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	1 to 5 yrs.	90 days; 1 to 5 years	1 to 5 years	1, 3, 5 years	1, 3, 5 years
Maintenance plans available	Contract, on-call	Contract, on-call	Contract, on-call	On-call, factory return	On-call, factory return
PRICING & AVAILABILITY					
Purchase price of basic system, $	37,000	45,700	39,000	65,750	63,000
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	375	500	405	618	553
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	2,000 (64KB)	2,000 (64KB)	2,000 (64KB)	3,500 (128KB)	3,500 (128KB)
additional workstations, $	2,300	2,300	2,300	2,300	2,300
additional printer, $	2,705 (150 cps)	2,705 (150 cps)	2,705 (150 cps)	2,705 (150 cps)	2,705 (150 cps)
Discounts available	Quantity	Quantity	Quantity	Quantity	Quantity
Date of first U.S. delivery	1981	NA	1981	May 1979	January 1981
Number installed to date	NA	NA	NA	NA	NA
COMMENTS				Additional workstation includes dual controller	

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MANUFACTURER AND MODEL	Texas Instrument DS990 Series Model 30	Three Rivers Computer PERQ	Vector Graphic 1600	Vector Graphic 2600	Vector Graphic 3005
WORD LENGTH, BITS	16	16	8	8	8
CPU					
Model	TI 990/12	TRCC proprietary	Zilog Z80A	Zilog Z80A	Zilog Z80A
Add time, microseconds	0.552 to 4.16	0.17 (16 bits)	0.666	0.666	0.666
No. of I/O ports on basic sys. and max.	20, 188	5	3 par., 1 ser.	3 par., 1 ser.	3 par., 1 ser.
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	256K	256K	64K	64K	64K
Maximum capacity, bytes	2048K	1024K	64K	64K	64K
Increment size, bytes	64/128/192/256K	—	—	—	—
Cycle/access time, microseconds	0.74 main/0.35 cache	0.68 (64 bits/ trans.)	0.166	0.166	0.166
MASS STORAGE					
Floppy disk (diskette) drive	Opt.; 1M bytes	Opt.; 1M bytes	Std.; (1) 630KB	Std.; (2) 1.2MB	Std.; (1) 630KB
Maximum diskette storage	4M bytes	1M bytes	1.2M bytes	1.2M bytes	630K bytes
Cartridge disk drive	Opt.; 10M bytes	—	—	—	—
Pack disk drive	Std.; 200M bytes	Opt.; 80-320MB	—	—	—
Fixed-head disk/drum	NA	Std.; 12-24MB	—	—	Std.; (1) 5MB
Maximum disk storage	800M bytes	2400M bytes	—	—	5.6M bytes
WORKSTATIONS					
Maximum number connectable	24	1024 (per network)	1	1	1
Recommended maximum number	24	1024 (per network)	—	—	—
Keyboard style	Type., num. key.	Typewriter	Typewriter	Typewriter	Typewriter
Workstation printer	Optional	Optional	Optional	Optional	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Opt.; 150 cps	Optional	Optional	Optional	Optional
Line printer	Opt.; 300, 600 lpm	Opt. (laser printer)	Optional	Optional	Optional
Reel-to-reel tape drive	Std.; 1600 bpi	Opt.; 800/1000 bpi	—	—	—
Cassette/cartridge tape drive	No	—	—	—	—
CRT	Std.; (2) 1920 char.	Std.; 768 x 1024 pix.	Std.; (1) 24 x 80 ch.	Std.; (1) 24 x 80 ch.	Std.; (1) 24 x 80 ch.
Other	—	—	—	—	—
COMMUNICATIONS					
Maximum no. of lines	Varies	2 std.; 4 opt.	1	1	1
Synchronous	Opt.; 75 to 9600 bps	Standard	Opt.; 1200 bps	Opt.; 1200 bps	Opt.; 1200 bps
Asynchronous	Opt.; 75 to 9600 bps	Standard	Opt.; 1200 bps	Opt.; 1200 bps	Opt.; 1200 bps
Protocols supported	Async, Bisync	—	2780/3780	2780/3780	2780/3780
Network architecture supported	NA	Ethernet	—	—	—
RJE terminals emulated	2780/3780	No	—	—	—
IBM 3270 emulation	Yes	No	No	No	No
SOFTWARE SUPPORT					
Cobol	Yes	No	Yes	Yes	Yes
RPG	Yes	No	No	No	No
Fortran	Yes	Yes	Yes	Yes	Yes
Basic	Yes	No	Yes	Yes	Yes
Assembler	Yes	No	Yes	Yes	Yes
Other programming languages	Pascal	Pascal, Lisp, ADA, C	Pascal, APL	Pascal, APL	Pascal, APL
Multiprogramming	Yes, variable	Yes, no fixed limit	No	No	No
Max. no. of jobs run concurrently	Variable	No fixed limit	1	1	1
Language complemented in firmware	No	Yes	Yes	Yes	Yes
Op. sys. implemented in firmware	No	No	No	No	No
General accounting packages	No	No	Yes	Yes	Yes
Industry application areas	No	General-purpose	Small bus., corp.	Small bus., corp.	Small bus., corp.
Data base management system	Yes, DBMS 990	No	Yes	Yes	Yes
File access methods supported	Seq., multi-key index	Sequential, random	—	—	—
Software separately priced	Yes	No	Yes	Yes	Yes
Technical help separately priced	Yes	No	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	1, 3, 5 years	Yes contact vendor	Contact dealer	Contact dealer	Contact dealer
Maintenance plans available	On-call, factory return	Yes	Dealer & TRW	Dealer & TRW	Dealer & TRW
PRICING & AVAILABILITY					
Purchase price of basic system, $	84,500	31,000	3,995	5,195	7,950
Monthly rental of basic system, $	—	Contact vendor	—	—	—
Monthly maint. price of basic system, $	663	Contact vendor	—	—	—
Monthly maint. bundled with rental, $	—	Contact vendor	—	—	—
Purchase price of:					
additional memory module, $	3,500 (128KB)	5,000 (1MB)	—	—	—
additional workstations, $	2,300	31,000	—	—	—
additional printer, $	2,705 (150 cps)	Model-dependent	—	—	—
Discounts available	Quantity	Yes	Dealer	Dealer	Dealer
Date of first U.S. delivery	May 1979	August 1980	1980	1981	1981
Number installed to date	NA	200+	NA	NA	NA
COMMENTS	Additional workstation includes dual controller				

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MANUFACTURER AND MODEL	Vector Graphic 3032	Vector Graphic 5005	Vector Graphic 5032	Wang VS Systems 50/80	Wang VS-100
WORD LENGTH, BITS	8	8	8	32	32
CPU					
Model	Zilog Z80A	Zilog Z80A	Zilog Z80A	Wang 50/80VS	Wang 2200VS-E
Add time, microseconds	0.666	0.666	0.666	NA	NA
No. of I/O ports on basic sys. and max.	3 par., 1 ser.	3 par., 1 ser.	3 par., 1 ser.	8	8
INTERNAL STORAGE					
Type	MOS	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	64K	64K	64K	256K	256K
Maximum capacity, bytes	64K	300K	300K	512K	512K
Increment size, bytes	—	64K	64K	128K	128K
Cycle/access time, microseconds	0.166	0.166	0.166	0.66	0.66
MASS STORAGE					
Floppy disk (diskette) drive	Std.; (1) 630KB	Std.; (1) 630KB	Std.; (1) 630KB	Std.; 318K bytes	Std.; 318K bytes
Maximum diskette storage	630K bytes	630K bytes	630K bytes	1.2M bytes	1.2M bytes
Cartridge disk drive	—	—	—	Yes; 30M bytes	Yes; 30M bytes
Pack disk drive	—	—	—	Yes; 75M bytes	Yes; 75M bytes
Fixed-head disk/drum	Std.; (1) 32MB	Std.; (1) 5M bytes	Std.; (1) 32MB	No	No
Maximum disk storage	32.6M bytes	5.6M bytes	32.6M bytes	3200M bytes	3200M bytes
WORKSTATIONS					
Maximum number connectable	1	5	5	32	32
Recommended maximum number	—	5	5	—	—
Keyboard style	Typewriter	Typewriter	Typewriter	Type., num. key.	Type., num. key.
Workstation printer	Optional	Optional	Optional	Optional	Optional
INPUT/OUTPUT DEVICES					
Serial printer	Optional	Optional	Optional	Std.; 120 cps	Opt.; 120 cps
Line printer	Optional	Optional	Optional	Opt.; to 1100 lpm	Opt.; to 1100 lpm
Reel-to-reel tape drive	—	—	—	Opt.; 800/1600 bpi	Opt.; 800/1600 bpi
Cassette/cartridge tape drive	—	—	—	No	No
CRT	Std.; (1) 24 x 80 ch.	Std.; (1) 24 x 80 ch.	Std.; (1) 24 x 80 ch.	Std.; 24 x 80 char.	Std.; 24 x 80 char.
Other	—	4 optional CRTs	4 optional CRTs	Opt. card reader	Opt. card reader
COMMUNICATIONS					
Maximum no. of lines	1	1	1	6	6
Synchronous	Opt.; 1200 bps	Opt.; 1200 bps	Opt.; 1200 bps	Opt.; to 9600 bps	Opt.; to 9600 bps
Asynchronous	Opt.; 1200 bps	Opt.; 1200 bps	Opt.; 1200 bps	Yes	Yes
Protocols supported	2780/3780	2780/3780	2780/3780	Bisync, Async	Bisync, Async
Network architecture supported	—	—	—	Wangnet	Wangnet
RJE terminals emulated	—	—	—	2780/3780	2780/3780
IBM 3270 emulation	No	No	No	Yes	Yes
SOFTWARE SUPPORT					
Cobol	Yes	Yes	Yes	Yes	Yes
RPG	No	No	No	Yes	Yes
Fortran	Yes	Yes	Yes	Yes	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes	Yes
Other programming languages	Pascal, APL	Pascal, APL	Pascal, APL	Procedure	Procedure
Multiprogramming	No	Yes, 5	Yes, 5 partitions	Yes	Yes; 32 users
Max. no. of jobs run concurrently	1	5	5	43 tasks	—
Language complemented in firmware	Yes	Yes	Yes	Partially	Partially
Op. sys. implemented in firmware	No	No	No	Partially	Partially
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Small bus., corp.	Small bus., corp.	Small bus., corp.	Yes	Yes
Data base management system	Yes	Yes	Yes	TOTAL	TOTAL
File access methods supported	—	—	—	Virtual index, rand.	Virtual index, rand.
Software separately priced	Yes	Yes	Yes	Yes	—
Technical help separately priced	Yes	Yes	Yes	No	—
LEASE/MAINTENANCE OPTIONS					
Lease plans available	Contact dealer	Contact dealer	Contact dealer	2-, 3-, 5-year	2-, 3-, 5-year
Maintenance plans available	Dealer & TRW	Dealer & TRW	Dealer & TRW	Contract	Contract
PRICING & AVAILABILITY					
Purchase price of basic system, $	12,975	8,995	13,995	32,900	22,000
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	—	—	—	450	235
Monthly maint. bundled with rental, $	—	—	—	—	—
Purchase price of:					
additional memory module, $	—	—	—	6,500 (128K bytes)	5,000 (64K bytes)
additional workstations, $	—	—	—	2,750	2,800
additional printer, $	—	—	—	3,200 (120 cps)	3,200 (120 cps)
Discounts available	Dealer	Dealer	Dealer	—	—
Date of first U.S. delivery	1981	1981	1981	December 1977	December 1977
Number installed to date	NA	NA	NA	NA	NA
COMMENTS					

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MANUFACTURER AND MODEL	Wang 2200 LVP	Wang 2200 MVP	Wang 2200 SVP	Wang 2200VP	Zeda 525
WORD LENGTH, BITS	—	8-bit byte	—	8-bit byte	8
CPU					
Model	Wang 2200 LVP	Wang 2200 MVP	Wang 2200 SVP	Wang 2200VP	Zilog Z80A
Add time, microseconds	—	130 (13 digits)	—	130 (13 digits)	1
No. of I/O ports on basic sys. and max.	3, 7	9	NA	9	3, 3
INTERNAL STORAGE					
Type	MOS/RAM	MOS	MOS/RAM	MOS	MOS
Capacity of basic system, bytes	32K	16K	32K	16K	64K
Maximum capacity, bytes	128K	64K	64K	64K	64K
Increment size, bytes	32K	16K, 32K	32K	16K	—
Cycle/access time, microseconds	0.60	0.6	0.60	0.6	0.25/0.125
MASS STORAGE					
Floppy disk (diskette) drive	Std. & opt.; 1M bytes each	Opt.; 786K bytes	Std. & opt.; 1M bytes each	Opt.; 786K bytes	Std.; (1) 200/400KB
Maximum diskette storage	2M bytes	—	2M bytes	—	1.2M bytes
Cartridge disk drive	Opt.; 8M bytes	Opt.; 20M bytes	Opt.; 4M bytes	Opt.; 20M bytes	—
Pack disk drive	—	No	—	No	—
Fixed-head disk/drum	—	No	—	No	—
Maximum disk storage	160M bytes	—	5M bytes	—	—
WORKSTATIONS					
Maximum number connectable	4	8	1	4	256 (multiproc. net.)
Recommended maximum number	4	8	1	4	32
Keyboard style	—	Type., num. key.	—	Type., num. key.	Typewriter
Workstation printer	Yes	—	Yes	—	Optional
INPUT/OUTPUT DEVICES					
Serial printer	No	Opt.; 200 cps	No	Opt.; 200 cps	Optional
Line printer	Opt.; 200-600 cps	Opt.; to 600 lpm	Opt.; 200-600 cps	Opt.; to 600 lpm	Optional
Reel-to-reel tape drive	Opt.; 1600 bpi	Opt.; 120KBS	—	Opt.; 120KBS	—
Cassette/cartridge tape drive	—	No	—	No	—
CRT	Opt.; 1920 char.	Opt.; 24 x 80 char.	Opt.; 1920 char.	Opt.; 24 x 80 char.	Standard
Other	—	Opt. paper tape	—	Opt. paper tape	—
COMMUNICATIONS					
Maximum no. of lines	2 to 5	5	1	5	1
Synchronous	Opt.; 300-9600 bps	Opt.; to 4800 bps	Opt.; 300-9600 bps	Opt.; to 4800 bps	—
Asynchronous	Opt.; 300-9600 bps	Opt.; to 9600 bps	Opt.; 300-9600 bps	Opt.	Programmable
Protocols supported	2780/3780/3271	Async, Bisync	2780/3780/3275	Async, Bisync	RS-232-C
Network architecture supported	—	—	—	—	InfiNet
RJE terminals emulated	2780/3780	—	2780/3780	—	—
IBM 3270 emulation	Yes	—	Yes	—	No
SOFTWARE SUPPORT					
Cobol	No	No	No	No	Yes
RPG	No	No	No	No	No
Fortran	No	No	No	No	Yes
Basic	Yes	Yes	Yes	Yes	Yes
Assembler	No	No	No	No	Yes
Other programming languages	No	None	No	None	Pascal
Multiprogramming	Yes, 16 partitions	Yes, 16 partitions	No	No	No
Max. no. of jobs run concurrently	16	16	1	4	1
Language complemented in firmware	No	Fully	No	Fully	No
Op. sys. implemented in firmware	No	Partially	No	Partially	No
General accounting packages	Yes	Yes	Yes	Yes	Yes
Industry application areas	Yes	Mfg., dist., insur.	Yes	Mfg., dist., insur.	General-purpose
Data base management system	—	No	—	Yes	Yes
File access methods supported	KFAM/HIKAM	Rand., seq., index	RFAM/HIKAM	Rand., seq., index	CP/M
Software separately priced	—	Yes	—	Yes	Yes
Technical help separately priced	No	No	No	No	Yes
LEASE/MAINTENANCE OPTIONS					
Lease plans available	1-year	2-, 3-, 5-year	1-year	2-, 3-, 5-year	—
Maintenance plans available	Yes	Contract	Yes	Contract	Yes
PRICING & AVAILABILITY					
Purchase price of basic system, $	8,000	9,000	6,000	8,000	3,995
Monthly rental of basic system, $	—	—	—	—	—
Monthly maint. price of basic system, $	80	55	68	45	17
Monthly maint. bundled with rental, $	—	Yes	—	Yes	—
Purchase price of:					
additional memory module, $	3,000 (32KB)	4,000 (32K bytes)	3,000 (32KB)	2,500 (16K bytes)	—
additional workstations, $	2,700	2,600	2,700	2,600	—
additional printer, $	Varies	5,000 (200 cps)	Varies	14,000 (400 lpm)	—
Discounts available	—	—	—	—	OEM, dealer
Date of first U.S. delivery	—	January 1978	—	November 1978	1980
Number installed to date	—	NA	—	NA	NA
COMMENTS					All Zeda products run ZEDOS operating system, a superset of CP/M; all diskettes are interchangeable; all Zeda products are designed for InfiNet

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MANUFACTURER AND MODEL	Zeda 529	Zeda 582	Zeda 582-15	Zeda 589
WORD LENGTH, BITS	8	8	8	8
CPU				
Model	Zilog Z80A	Zilog Z80A	Zilog Z80A	Zilog Z80A
Add time, microseconds	1	1	1	1
No. of I/O ports on basic sys. and max.	3, 3	7, 8	8, 8	7, 8
INTERNAL STORAGE				
Type	MOS	MOS	MOS	MOS
Capacity of basic system, bytes	64K	64K	64K	64K
Maximum capacity, bytes	64K	64K	64K	64K
Increment size, bytes	—			
Cycle/access time, microseconds	0.25/0.125	0.25/0.125	0.25/0.125	0.25/0.125
MASS STORAGE				
Floppy disk (diskette) drive	Std.; (1) 200/400KB	Std.; (2) 200/400KB	Std.; (1) 200/400KB	Std.; (1) 200/400KB
Maximum diskette storage	1.2M bytes	1.6M bytes	1.2M bytes	1.6M bytes
Cartridge disk drive	—	Opt.; (1) 10-20M bytes	Std.; (1) 5M bytes	Opt.; (1) 10-20M bytes
Pack disk drive	—	—	—	—
Fixed-head disk/drum	—	—	—	—
Maximum disk storage	—	20M bytes	5M bytes	20M bytes
WORKSTATIONS				
Maximum number connectable	256 (multiproc. net.)	256 (multiproc. net.)	256 (multiproc. net.)	256 (multiproc. net.)
Recommended maximum number	32	32	32	32
Keyboard style	Typewriter	Typewriter	Typewriter	Typewriter
Workstation printer	Optional	Optional	Optional	Optional
INPUT/OUTPUT DEVICES				
Serial printer	Optional	Optional	Optional	Optional
Line printer	Optional	Optional	Optional	Optional
Reel-to-reel tape drive	—	—	—	—
Cassette/cartridge tape drive	—	—	—	—
CRT	Standard	Standard	Standard	Standard
Other	—	—	—	—
COMMUNICATIONS				
Maximum no. of lines	1	2	2	2
Synchronous	—	—	—	—
Asynchronous	Programmable	Programmable	Programmable	Programmable
Protocols supported	RS-232-C	RS-232-C	RS-232-C	RS-232-C
Network architecture supported	InfiNet	InfiNet	InfiNet	InfiNet
RJE terminals emulated	—	—	—	—
IBM 3270 emulation	No	No	No	No
SOFTWARE SUPPORT				
Cobol	Yes	Yes	Yes	Yes
RPG	No	No	No	No
Fortran	Yes	Yes	Yes	Yes
Basic	Yes	Yes	Yes	Yes
Assembler	Yes	Yes	Yes	Yes
Other programming languages	Pascal	Pascal	Pascal	Pascal
Multiprogramming	No	Yes, 2 partitions	Yes, 2 partitions	Yes, 2 partitions
Max. no. of jobs run concurrently	1	2	2	2
Language complemented in firmware	No	No	No	No
Op. sys. implemented in firmware	No	No	No	No
General accounting packages	Yes	Yes	Yes	Yes
Industry application areas	General-purpose	General-purpose	General-purpose	General-purpose
Data base management system	Yes	Yes	Yes	Yes
File access methods supported	CP/M	CP/M	CP/M	CP/M
Software separately priced	Yes	Yes	Yes	Yes
Technical help separately priced	Yes	Yes	Yes	Yes
LEASE/MAINTENANCE OPTIONS				
Lease plans available	—	—	—	—
Maintenance plans available	Yes	Yes	Yes	Yes
PRICING & AVAILABILITY				
Purchase price of basic system, $	4,195	6,038	10,500	5,938
Monthly rental of basic system, $	—	—	—	—
Monthly maint. price of basic system, $	18	26	45	25
Monthly maint. bundled with rental, $	—	—	—	—
Purchase price of:				
additional memory module, $	—	—	—	—
additional workstations, $	—	—	—	—
additional printer, $	—	—	—	—
Discounts available	OEM, dealer	OEM, dealer	OEM, dealer	OEM, dealer
Date of first U.S. delivery	1980	1980	1980	1979
Number installed to date	NA	NA	NA	NA
COMMENTS	See 525 Comments	See 525 Comments	See 525 Comments	See 525 Comments