

A Datapro Feature Report

All About
Word Processors

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All About Word Processors

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Word Processing Systems



IBM OS 6/452

► **Selectric Typewriter (MT/ST).** Introduced in 1964, this tape cartridge typing system ushered in the age of word processing.

The first MT/ST models constituted an evolutionary advance over paper tape media automatic typewriters. Overall functional capabilities of both machine classes were almost identical. The MT/ST could, however, perform such functions with higher degree of ease and speed. Magnetic tape can be erased and re-recorded; punched paper tape cannot. MT/ST tape is more "compact", having a storage density of about 20 characters per inch versus 11 characters per inch for paper tape. Present-day magnetic tapes have even higher storage densities. Magnetic tapes can be handled and stored more efficiently than paper tape, and transport search retrieval speeds on typing systems are faster.

In 1969, five years after the first MT/ST models appeared, IBM introduced the Mag Card Selectric Typewriter (MC ST)—a word processing typewriter that employed a reusable, page-recording, magnetic card



Xerox 860 IPS

storage medium. The page-orientation of this mag keyboard was easy for typewriter operators to conceptualize, and the MC ST met with high acceptance. The popularity of this model made it the "norm" to which all other word processors were matched. Two years later, Redactron introduced a line of magnetic card and magnetic tape typewriters. Competition had started, and a new industry was born.

The 1970s witnessed fast and furious activity in word processing. Lexitron and 3M Linolex introduced the first video display systems in 1972. Concurrently, Comptek Research was among the first to offer a shared-logic, multi-keyboard computer system dedicated to word processing tasks. Vydec became the first manufacturer to incorporate diskettes with a word processor in 1973. These technological milestones were coupled with the entry of many new companies into the market. The most prominent (not including those firms already mentioned) are Olivetti (1971); CPT and Wang (1972); Savin (1973); Royal and Xerox (1974); A.B. Dick, Lanier, and Digital Equipment (1976), and AM (1977). Over 50 firms are now involved in the direct marketing of word processing equipment in the U.S., with many more waiting in the wings with to-be-announced systems. The 100-odd word processors sold can be classed into two main categories—standalone word processing products and multi-terminal word processing systems which include shared logic and resource configurations.

STANDALONE WORD PROCESSORS

A classic standalone word processor consists of a single station configuration which contains its own control logic. Within this classification are five specific types of standalone systems:

- **Electronic Typewriters** — These devices may best be described as the electronic equivalent of the electro-mechanical typewriter. The electronic typewriter emerged in 1978 when Qyx introduced the Intelligent Typewriter. Since that time a number of other vendors have entered this market and within the next few years virtually every typewriter vendor will have an electronic typewriter to offer. Electronic Typewriters take their place at the extreme low end of the word processing market as a logical upgrade for existing users of single element electric typewriters. They are generally intended for the traditional office environment at the secretary's desk rather than in the word processing center. Though not full-fledged word processors, electronic typewriters feature small buffer memories for minimal text or phrase storage and recall; these devices also incorporate a number of features such as automatic centering, automatic numeric alignment, automatic underlining, and automatic carriage return, that facilitate the keyboarding and revision of small amounts of text on a first-time-final, or limited revision basis.

- **Standalone Mechanical Systems** — Standalone mechanical word processors consist of an integral keyboard printer (usually a modified Selectric Typewriter) that is coupled with edit and control logic; ▷

internal memory, and an auxiliary magnetic media recorder (card, cassette, tape cartridge, or diskette). On such mag keyboard word processors the printer is used to generate text for editing operations as well as for final document output. A standalone word processing typewriter without display capabilities can range in price from \$4,000 to over \$10,000. Though not representing the current "state-of-the-art" in word processing technology and capability, standalone mechanical systems are perhaps still the most widely used word processors. Available since the mid-1960s and long into the 1970s, these systems are best suited for automatic letter writing and other page-oriented applications.

- **Standalone "Thin Window" Display Systems** —

These systems consist of an integral keyboard printer and a one-line or partial-line CRT or gas plasma display, affording a window into memory, such systems ease editing tasks and offer the operator a series of visual cues during the text entry and editing process. Olivetti and Artec were the first firms to enter this market. Xerox joined in October 1977 with the announcement of the 850 Display Typewriter. In 1978 Qyx and A.B. Dick entered the "thin window" marketplace. Qyx introduced the Intelligent Typewriter in January 1978; Levels 3, 4, and 5 of the modular, expandable Qyx product may be optionally equipped with a one-line, 24-character display. A.B. Dick introduced the Magna II in June of 1978; this product is an enhanced, 32-character, one-line display version of the Magna One word processor. In addition to these two products, Olivetti introduced their second "thin window" offering, the TES-401, in June of 1978.

- **Personal Computer Systems** — Recent innovations

in personal computers have taken them out of the home/hobby environment and placed them in the hands of educators, professionals, and businesses where they are found in serious use as standalone data/word processors. A personal computer is typically a general-purpose, standalone, microprocessor-based system that relies on conversational interaction between it and its operator and has a base purchase price of about \$2000 or less. The microprocessor is often an Intel 8080-compatible Zilog Z-80, a Motorola 6800, or a MOS Technology 6502 8-bit system with built-in RAM memories from 4KB to as much as 64KB. It also includes software sufficient to permit a layman to gain productive use and enjoyment out of the system in a typical home, education, or small business environment.

The system is usually supplied with a keyboard and a limited configuration of peripherals. Additional peripherals are widely available, either from the system vendor or independent sources. Most personal computer systems permit the use of cassette tape for program and data storage with 5 1/4- or 8-inch diskettes becoming increasingly popular. User interface generally takes place through the keyboard and a black and white CRT display, or monitor, that is provided with the

Word Processing Systems



Dictaphone/Artec Dual Display

system. Some systems provide an interface that allows the user to attach his own color or black and white TV set as the system's display monitor.

Word processing applications software allowing for a full range of text editing capabilities is usually available from the vendor or from numerous software houses that write software programs for these systems.

- **Standalone Display-Based Systems** — The Standalone Display word processor category represents one of the most active sectors of the word processing marketplace. This type of word processor replaces the keyboard printer with a keyboard and video display (partial or full-page) terminal plus single or dual media drives (usually diskette) and a separate printer. With this type of word processing configuration, text is keyed, edited, and changed on the display before printout. The display-based word processing workstation is becoming the building block of the automated office of the future and as such will or may already be used to perform a number of integrated functions such as data processing, electronic mail, administrative support, and personal computing. Standalone display-based word processors are priced from \$10,000 to over \$20,000—the higher-priced exceptions sometimes offering data processing and other capabilities, as well as word processing.

Video standalone word processors have internal or buffer memory systems capable of holding in excess of a display page of text. Such extra capacity allows lines to be scrolled through the display for edit, update and revision, and allows the addition of new text to a document file. Text is either called up into memory from files stored on magnetic media (usually diskette), or directly keyed.

- **Printer-Only Word Processors** — Most (but not all) printer-only standalone word processors contain only a line buffer for internal memory. Exceptions with large buffer capacities employ such ▷

Word Processing Systems



A B. Dick Magna SL

into a master card, tape, etc. Such tasks on single media word processors are performed in a less automatic manner, and usually require more direct operator intervention.

Optional peripherals offered for standalone word processors usually include communications, paper feed devices, OCR, and higher speed printer capabilities. A few printer-only standalones (CPT 4200 and Wang 1222) also offer limited display capabilities as an optional add-on feature. Whereas some video standalones provide full-page, 60-line or more viewable screen capacities and large internal buffers, only partial page or less capacities are provided by these add-on screens.

MULTI-TERMINAL WORD PROCESSORS

A multi-terminal word processing system, as the title suggests, is a word processing system configuration which incorporates more than one workstation, where these stations share one or more particular resource. Included in this broad category of equipment are shared-logic and shared-resource systems. Multi-terminal word processing systems are suited to large environments where it may be desirable to share work files among many operators, and share peripheral devices among workstations thereby maximizing the potential of these devices.

• **Shared-Logic Systems** — Shared logic multi-terminal word processing systems are quite similar in concept to time-shared or key-to-disk computer systems common in the EDP industry. Such systems share the logic, storage and peripherals of a central computer among a number of keyboard editing stations. Typically, a maximum of 12 stations may be supported by the processing power of a central mini-computer, although some shared-logic configurations may support up to 35 or more stations. High-speed printers (line, belt, matrix, electrostatic, etc.) are often employed by such systems, especially where a first draft copy is required on an "instant" basis. Otherwise, printout is typically ▶

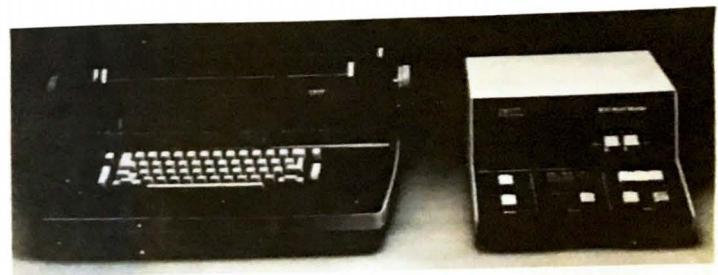


Lanier No Problem Shared and Cluster Systems

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Word Processing Systems



Savin 900 Word Master

performed on one or more daisy wheel printers. Operator input and editing is usually performed on video display terminals. Other peripherals include OCR input, disk cartridge or pack storage, computer-compatible magnetic tape storage, mark or punched card readers, communications, photocomposition interfaces or punched paper tape output, and any other of the many devices that may be attached to a computer-controlled system.

Shared-logic systems not only share the logic but also share the cost of the system among a number of keyboard stations. Word processing power that might be cost-prohibitive on a single keyboard standalone system can be attractive when spread over a number of stations. Thus, shared-logic systems can provide greater control logic and edit capabilities, and larger on-line memory and storage capacities. Text can be stored, searched and retrieved as multi-page documents, maintaining page format and pagination throughout a number of updates and revisions. A number of word processing tasks may be performed almost simultaneously on a number of operator stations. Printout may be performed while text is being keyed or edited, a feature less common among standalone word processors.

An intermediate "cluster" type of shared-logic word processor is available for users who find the shared-logic concept attractive but presently lack the volume to justify the purchase of a large shared-logic system. Cluster systems are somewhat less expensive, but offer most of the text editing features inherent in a full-blown shared-logic system. The main limitations are the ultimate number of stations supported (usually four to six per cluster), and on-line storage capacities. The system is thus viable for users who require fewer stations on an initial or even ultimate installation basis. Clusters may even appeal to a high volume user who may wish to disperse tasks among a number of clusters rather than place them all on a single system. A system malfunction in this instance would not idle the entire word processing facility; only one cluster would be disabled rather than the entire shared-logic system.

• **Shared-Resource Systems** — The shared-resource word processing system is another type of multi-terminal word processor configuration. Shared resource systems encompass a broad range of configurations, but have one thing in common: each workstation within a shared resource system contains its own intelligence and processing power. Outwardly much like a shared logic system, shared resource word processors, since intelligence is dispersed to the operator stations and sometimes the shared peripherals, offer greater integrity than their shared-logic counterparts. A malfunction of one particular station would not shut down the entire system. The shared resource concept had its beginnings in the mid-to-late 1970s when standalone word processor manufacturers joined the cluster bandwagon by sharing a printer among two or more workstations as a simple means of enhancing their own word processors. This concept has grown in popularity, and now a number of standalone vendors are offering not only shared printer options, but shared disk file and other shared peripherals. Such shared configurations offer the standalone user a means of modular, upward expansion, and offer the standalone vendor a means of competing in the more lucrative shared-logic market.

On first appearance, the cost of a multi-terminal, word processing system might seem high. The true cost, however, must be measured on a per-station basis, and on the processing power extended to each station by the system. Price tags range from under \$25,000 to over \$150,000, but the per-station cost is usually in the \$10,000 to \$20,000 range—similar to the cost of a standalone video word processor with which the multi-terminal system usually competes.

OTHER TYPES OF WORD PROCESSING

The availability of time-shared word processing services from a number of vendors provides an alternative to (or a back-up for) internal user-owned equipment. Computer terminals or communicating word processors at the user site are employed to access the word processing power of a remote computer system via the telephone network. By sharing such power amongst a number of ▶

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► users, the time-shared service vendor can provide sophisticated functions at modest costs. A companion Report covers such services in more detail.

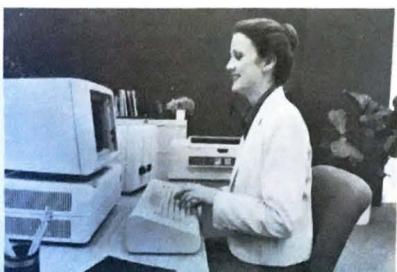
A new category of word processor employs a distributed logic concept. Outwardly much like a shared-logic system, distributed logic word processors disperse intelligence to the operator stations, the printers, the storage modules or other system peripherals rather than concentrating such intelligence at a central processor module. From the operator or user point of view, such dispersed systems function in a manner almost identical to a shared-logic system. However, since intelligence or power is dispersed, a malfunction would not necessarily shut down the entire system.

GENERAL FEATURES

Word processing systems are able to produce printed output at speeds from 100 to 540 words per minute on quality impact printers to 36 to 120 pages per minute on electrostatic devices. In time-shared or shared-logic systems, a separate high speed line printer is often located in a central area and used for high volume work (direct mail labels, envelopes, form letters) at speeds often exceeding 20,000 wpm.

Depending upon the particular system, more than a dozen knobs, control buttons, switches and/or signal lights will be found on the basic keyboard console in addition to secondary edit functions piggy-backed onto many of the traditional typewriter keys. The typical word processing system can be operated by existing secretarial personnel after training sessions ranging in length from several hours to several days.

While it is true that word processors are often more efficient when operated by personnel who are machine-oriented rather than people-oriented, the most sophisticated equipment (in terms of features and functions) is often the easiest to operate and the fastest to learn. This seeming incongruity is explained by the tutorial devices included in many of the more sophisticated systems. Often, the operator need memorize only a few key commands initially, with the system providing cues as to how to proceed and "menus," listing the options



The IBM Displaywriter System consists of desk-top display and electronics modules, typewriter-like keyboard, any one of three typewriter-quality printers and removable diskette storage.

Word Processing Systems

available at any point in the editing process. Other equipment manufacturers, mindful of the high costs of individualized training, have collaborated with training film vendors to produce self-training programs which the user may buy to train (and retrain) successive operators.

Viewing or display screens have significantly improved the text editing I/O word processing cycle. Simple line displays eliminate the need for some intermediate hard copy output. Full-page displays offer the added advantages of allowing each page to be scanned in its entirety before storing or printing. Thus, the operator has control over complete page balance and appearance, as well as the ability to enter or delete text (character, word, line, paragraph, page) at will. The display also allows the printer unit to be separated from the keyboard. Other non-Selectric type printers using the "Daisy" wheel form of print element offered by Diablo or Qume can be employed; their disadvantage of having the typed line covered by the wheel element mechanism may be alleviated by a display screen.

Full and partial page display capability can be found on standalone systems, shared-logic configurations, or time-shared systems. In general, a considerable degree of intelligence is needed to support the full page display capabilities of line roll up/down (scrolling), insertions/deletions within the middle of sentences, etc. In fact, the only disadvantage of the display-oriented systems (assuming that their higher cost is turned to good advantage through increased productivity) is that some of the systems can lose up to a full page during editing if a power failure is experienced before the page is stored.

By establishing separate job positions for correspondence and administrative secretarial personnel, improvements in efficiency through functional specialization can be achieved. A standard method of achieving this specialization has come to be the company-wide dissolution of the private secretary position in favor of a centralized word processing center plus one or more administrative support positions in locations near executive personnel requiring such service.

It should be noted that the concept of a word processing center need not involve a large number of secretarial personnel, but merely functional centralization. It is reasonable for a small office or for decentralized departmental areas within a large company to have a word processing center consisting of 1 or 2 persons. Thus, wholesale restructuring of an entire company's secretarial support with elimination of all personal secretaries is not necessarily required in order to initiate efficient word processing operations.

Beside the notion of dividing duties to conquer the workload, word processing also emphasizes the concept of professional supervision. Even without the use of automated equipment, having secretaries report to a single supervisor, whose main concern is efficient handling of the total secretarial workload, will have positive effects on productivity. When combined with the increased productivity attributed to the technology of automation, ▶



Qyx Intelligent Typewriter Level Five

► such increases can have a significant effect on the firm's cost saving efforts.

Another aspect of functional centralization into word processing centers is that the secretary, upon being freed from a direct employee-supervisor relationship with a particular principal, is now viewed as a professional and can compete directly with others for advancement without compensation and status being linked to that of a particular boss.

While a word processing center can operate to make the traditional office environment somewhat less personal, a key difference should be observed between word processing centers and the rather more old-fashioned secretarial pools. While the secretaries in a pool report to a single supervisor and are physically centralized as are personnel in word processing centers, each member's functions in a pool can continue to be general purpose in nature. Their equipment tends to be electric typewriters rather than newer automatic equipment, and when a principal requires dictation or other secretarial services the pool member is likely to leave the pool to work at the principal's location. In word processing centers the personnel will depend upon dictation or messenger services to obtain input material, and physically perform their secretarial typing support activities in the word processing center. Where non-typing administrative functions are required, the appropriate administrative secretaries can be used.

APPLICATIONS

During the last ten years, the earliest and strongest advocates of word processing have been service-oriented companies who regularly manipulate paper, and who consider paperwork costs to be equivalent to a manufacturing organization's production costs. Such paper-intensive organizations include insurance companies, banks, law firms, and administrative government agencies. The primary step in advancing the word

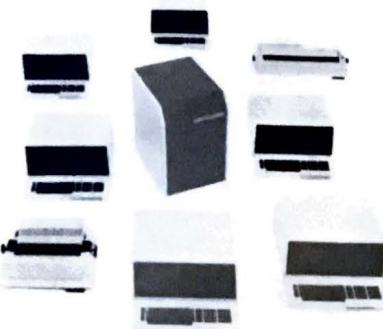
processing concept to these firms was the development of automatic typewriters.

Based upon early piano roll player systems used to drive standard typewriters, service bureau automatic letter writing shops using automatic typewriters have been popular since the mid-1950s. Producing hundreds of personalized form letters per day, the typing system comes to a halt at specified places for the insertion of date, name, address, greeting, etc. Newer typing systems with magnetic recording media, internal memory, and visual displays have become available, extending applicability of the automatic typewriters to include merging of pre-recorded typed phrases, lines, and paragraphs; rough drafting to transcribe dictation onto magnetic media at high speed for subsequent error correction; and full-fledged text editing allowing for right margin justification (with support for hyphenation) or full line justification (all words ending evenly on right margin) with blank space insertions if necessary; and photocomposition equipment interfacing.

The most widespread office application for word processing systems continues to be typing of letters and memos. Lengthy text editing, statistical typing and pre-printed forms preparation continues to increase. These last two word processing applications are spreading outside the service-oriented companies who were the first to use the automatic typing equipment. Proposal-writing groups, purchasing offices, and accounting departments in a variety of companies (industrial, utility, transportation, shipping, and distribution firms) are now focusing attention upon this type of office automation.

A large and growing application for word processing systems is records processing. The advent of such capability brings word processors into a new realm. Instead of being employed for just correspondence and text handling work, word processors with records handling capability act as information processors. From just a letter writing point of view (and the applications for ▶

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NBI OASys 8 Network

► records handling sort select capability are endless), word processors with records handling capability are able to, for instance in a sales office environment, prepare and route letters to specific, metropolitan areas or sales territories; to prospects with minimum gross sales volumes; to organizations having a certain number of employees; and to other entities based upon specific identifying qualifying criteria. Inquiry retrieval features can allow determination of the number and identity of business prospects for a given area or a given product. Dunning letters can be generated with a single operator command for overdue accounts, carrying an itemized list of unpaid items imbedded in the text of the letter.

Word processing systems are thus entering an era where they will be assessed as administrative support systems as well as document handlers. When viewed from this prospective, such information processors will be cost-justifiable in a number of new environments, and will be employed innovatively, supporting many administrative tasks such as calendar, tickler files, file indexing, electronic mailbox, list and record maintenance, and so forth.

ADVANTAGES

The main advantages of word processing, as implemented via automatic typing equipment, can be summarized as follows:



Royal 7000

- increased office efficiency resulting in improved secretarial support for all executives and/or word originators;
- higher quality typed output based upon more advanced equipment;
- higher utilization of installed office machines;
- improved human resource utilization with better control and supervision of secretarial personnel through a word processing center; and
- greater career opportunities for secretaries and clerical personnel.

In particular, improved productivity is obtained by:

- reduced retyping time for error-free hard copy;
- facilitation of document revision/change;
- faster output speeds (from 1 to 120 pages per minute depending upon the output device);
- reduction in amount of proofreading required;
- leveling of peaks and valleys in an otherwise unpredictable workload when dictation equipment is used; and
- elimination of the retyping step for photocomposition input (when required).

As a consequence of these benefits, it has generally been found that a considerable cost savings is possible. Secretarial clerical payrolls are reduced through gradual attrition even though remaining personnel will be paid somewhat more based upon their higher productivity.

For example, a secretary spending most of the day typing with an electric typewriter can produce about 50,000 lines of typing per year. A correspondence secretary using an automatic typing system can produce 150,000 or more lines per year. Industry estimates and recent studies showing four-fold increases in output productivity are not unusual; improvements of up to five times greater typing productivity per secretary have been obtained for complex text edit applications where many revisions must be made to lengthy documents. Furthermore, automatic typing systems tend to bring effective production within reach of even mediocre typists, although high-speed typists can push the system to its optimum by shortening the input cycle time for original keyboard entry.

Typed output for single-copy, error-free original correspondence (assuming a typical letter length of about 150 words) tends to be the area where the smallest productivity improvement is experienced — typically on the order of a less than two-fold increase. Where multiple originals are required, the productivity tends to increase ►

► dramatically. On the whole the chances of getting a significant improvement in productivity are great, with up to 85% of current word processing users reporting that their systems are cost effective and that they are pleased with the results.

TRADEOFFS

Consider the example of a medium-sized office with a balanced workload of correspondence typing, text editing, and repetitive typing — typewriters used on a regular basis throughout the day. The output is assumed to be 150,000 typed lines per year from three secretary/typists. The salary of each secretary is \$150 per week, amounting to a total labor expenditure of about \$23,000. Adding one-time typewriter equipment costs brings the total to about \$25,000.

A single secretary/typist with an automatic typing system will equal the output of a conventional three-secretary office. However, another secretary must be included to handle non-typing administrative duties. Total labor expenditures thus are about \$16,000. Adding automatic typing equipment costs gives a total of \$24,000. Thus, first year savings obtained with an automatic system amount to \$1,000 plus decreased employee benefit, overhead and training costs.

During subsequent years (following full payout of the equipment) the cost in the above example for the automatic system would be about \$5,000 per year less than that of the conventional system—based on salary differences only. This represents about a one-third decrease in office typing expense by virtue of using word processing equipment and specialization of function. The results illustrated will vary depending upon specific customer conditions, including daily hours of system utilization, extent of text editing (revision) versus

repetitive typing, length of individual documents, etc. As the mix of jobs shifts away from short one-time non-complex letters toward either heavier text editing or repetitive typing, the advantage moves more towards word processors, since the higher speeds and intelligence of the automatic systems can be employed to full advantage.

Note that the example shows how full amortization of the equipment can well occur within the first year. Also note that word processing systems have remarkably good resale/trade-in value.

Another example of relative cost tradeoffs can be found by the comparison of the cost-per-page for material typed on electric typewriters versus that produced using word processors. Costs are about one-third less per page for automatic systems. Current studies indicate that typical (1-page) non-automatic letter production costs range from \$3.25 to \$5.25 each. Thus, direct savings on correspondence typing of from \$1 to more than \$1.50 per letter can be realized, depending upon the dictator's salary and other associated overhead costs.

Other tradeoffs between automatic versus standard electric typewriters include the advantages of having output products (neat, error free originals or machine-readable media) that integrate well into other office operations. In the flow of office paperwork, another tradeoff can be lower consumable paper costs, particularly for the newer automatic typewriters using visual displays — either cathode ray tube (CRT's) or gas plasma displays (GASP's). Such displays allow the entire document to be viewed in full-page format before transfer or printout onto paper. This reduces "paper mill" effects for intermediate or rough copy outputs. ▶



CPT Disktype 8000

Word Processing Systems



The Axxa System 90 Electronic Office is a prime example of a multi-function integrated work system. It incorporates word processing, electronic mail, and administrative support functions, and fits into the traditional office environment where the principal-to-secretary relationship holds firm.

► For those systems with point-to-point communications interfaces, a whole new set of trade-offs can be made by comparing telephone transmission line costs with postage charges and the time value of immediate (hard copy) message transfer.

FUTURE OUTLOOK

Word processing systems have evolved tremendously over the past fifteen years, and will continue to do so. One of the primary goals behind word processing and all aspects of business automation is to increase efficiency and productivity within an organization. What is actually happening is that these goals are being met through the implementation of automated devices which emulate electronically functions that have traditionally been manually performed. Conceptually, then, the outlook for word processing systems will include

- **Multi-Function Integration** — Given that word processing is but one function of the office, future systems will include the incorporation of word processing with other office business functions. Indeed, it will no longer be necessary to separate word processing typing personnel from administrative support personnel. While this is still a viable concept in many instances, what is actually happening is that organizational changes are taking place because of the limitations imposed by what a system is capable of doing. Systems which incorporate an integration of
- functions do just the opposite, they are tailored to automated business as it is done without the interruption of existing organizational patterns. Integrated functions will include one or more of the following: administrative support, calendaring, electronic filing, electronic information distribution, data processing, personal computing, and specialized applications within a particular organization.
- **From Standalone to Shared System** — Directly connected to the idea of multi-function is the shared system concept. Word processors had their beginnings as separate standalone devices which served to automate a particular business function, that of the typing activity. Although the automation of standalone devices still is desirable over non-automation in small businesses and special applications, there is an increasing trend toward systems which permit the sharing of peripheral devices, and information contained in a database, or other files. Again, automated systems present an electronic means of doing work, and as such should emulate the manner in which work is actually performed. Rarely is a business activity performed in total isolation; rather it is the interaction of many activities with many types of information taken into account. Information (and auxiliary support devices) then, should be made as accessible electronically as it is manually. Recently, word processing vendors such as CPT, Lanier, Lexitron, and Nerox, whose main thrust in the word processing marketplace has been in the standalone area now offer shared systems; as such they compete directly with vendors of traditional shared logic systems for a quite lucrative market; and it will only be a matter of time before others will follow.

From a hardware point of view, the outlook for the next few years will see:

- More display-based systems;
- A continuing shift to random access storage media;
- Larger capacity storage media in the form of double sided and dual density diskettes or a combination of both, 8-inch Winchester disk media, and large capacity hard disks;
- A move from hardwired to software programmable systems. Software programmable systems permit the word processing vendor to update and enhance soft-

ware features of the word processor by providing timely program updates and application packages;

- an increase in user programmability.

Finally, the near future should see a cost features improvement as the cost of word processing equipment continues to decrease in proportion to what systems will be capable of doing. New training and support methods are being implemented because as the cost of word processing equipment goes down it becomes less profitable for the word processor supplier to maintain costly sales and support personnel. Several suppliers are now determining the feasibility of equipment distribution via retail outlets; and a few actually have such a distribution scheme in the works. In the area of training, less emphasis will be placed on MSR support; a great deal of word processing system training is now being implemented through the use of self-paced learning packages. MSR support will continue to be available, but at a charge and with the role of the MSR changing somewhat to that of a word processing systems analyst.

PLANNING CONSIDERATIONS

Before rushing on to the equipment comparison charts and selecting a typing system, it will be wise for the potential user to examine current operations. Emphasis should be placed upon typing and dictation activities for the purpose of evaluating and documenting:

- The nature and volume of present typing operations (extent of editing, multiple original generation, form letter preparation, etc.).

- The people engaged in typing and dictation activities.
- The ratio of secretarial time spent on typing/dictation functions versus administrative/non-typing activities.

Personal interviews with secretaries and the originators of documents to be typed, along with typing activity time logs should provide the raw data for the evaluation.

Rough typing volume guidelines would be to consider automatic typing systems when loads reach 100,000 lines-per-year levels, or when labor costs directly related to typing reach the \$5,000 to \$10,000 level, as another low-end guideline.

Based upon these preliminary findings and with consideration for short-to-long term growth and expansion, a recommendation should be made to top management regarding the decision to commit to office typing automation. The chances for ultimate success rest largely on the initial commitment from top management to utilize word processing, and the personnel and procedures selected to implement their commitment. At one time, word processing meant the implementation of total word processing, throughout the company, in one or a series of word processing centers. This unilateral approach is no longer considered appropriate; generally the procedure is to look at office organizations and personnel, and select from a number of alternative models the one best suited to a particular environment. This could be the centralized word processing center, with a complete divorce between correspondence and administrative tasks. It is more likely, these days, that the appropriate choice will recognize some need for organization by department or function, and the requirement to achieve added flexibility by having some



Wordplex/7

Word Processing Systems



Radio Shack TRS-80 Model II with line printer and disk drive.

► secretaries who combine administrative and correspondence tasks, doing now one and then the other. The need for some executives to retain a personal secretary can also be recognized in this, more flexible and forgiving environment.

The best way to implement a word processing decision in a firm of any size is on a function by function or department by department basis. The first department to try word processing should be selected not only on the basis of the volume and nature of their workload, but also on the basis of attitudes toward word processing. It is vital to the future success of word processing within a company that the first installation be manned by enthusiastic personnel who will look on initial problems as interesting challenges, and who will insure that the company's first try is a real success. The limited size and scope of the first installation allows the firm to develop good cost performance data for subsequent comparison studies, and

will also permit training personnel without disrupting the entire organization.

After the initial examination of non-automated activity has taken place and an area within the company has been selected for pilot application, selection of appropriate equipment can be made. It should be noted that some degree of re-organization for the secretarial function into typing (correspondence) versus non-typing (administrative) functions might be required; to some extent reorganization will be influenced by the specific nature and capabilities of the equipment selected.

Based upon the specific nature of the typing work, the activity level of the word originators (dictators), and the historical job stability of the secretarial personnel, a good initial feel for the complexity of the system to be selected can be obtained. For instance, if personnel turnover is high, the average skill levels are low and the typing requirements are simple, it makes little sense to install a complex minicomputer-based system that requires extensive operator training. Further, the user should limit his initial cash investment in new equipment to a minimum since the first systems acquired may not work out satisfactorily.

One good way to start out is the use of a time-sharing service which will generally provide the lowest possible entry costs while giving the operators a feel for the capabilities of automatic typing. In any event, the user should make an effort during the first year to remain flexible. The best way to do this is to rent equipment. Even if the complete pilot program is a success, subsequent automation of other company areas can well call for a centralized in-house system.

After determining via the comparison charts (which make up the second half of this report) what word processing systems or services are best suited to the application, the ►



Olivetti TES 701

Word Processing Systems

THE TABLES

► potential user should then ascertain the quantity and quality of local support offered—perhaps the most significant factor in any evaluation.

Vendor support, particularly at this stage in the development of the word processing industry, is extremely important. Except for IBM, Xerox, and a few other large firms, the predominant nature of the word processing industry is for the manufacturer to sell through dealers and/or franchise agents. In most cases these dealers and agents are separate business entities who purchase equipment from the manufacturer for resale. Under these conditions, the reputation and soundness of the dealer is as important as that of the manufacturer. Often the need for careful appraisal can be even greater if the independent dealer arranges third-party lease financing. This effectively means that the user has purchased the system, and might be in sad shape if either the dealer or manufacturer refuses to back up the system with proper support. By careful checking with other users in his local area, and by adding self-protective clauses to the standard lease contract, the user can generally obtain a high degree of assurance that his interests will be protected.

Note that where the I/O typewriter is a Selectric-based unit, the vendor arranges service directly from IBM. Such service will be for the typewriter as a typewriter and not as a word processing system. Overall word processing system responsibility remains the problem of the vendor.

After the pilot installation has been running and initial problems solved, the cost performance of the operation should be studied and compared against non-automated segments of the business. Only when performance is improved and costs reduced should the program be expanded. A good ball park figure for management to shoot for is an overall typing cost savings of about one-third. This figure is achievable within a year, and can be expected to improve with time as more cost effective equipment is introduced and as personnel become familiar with equipment and procedures.

The tabulations that follow present the features and characteristics of standalone and shared logic systems marketed by 50-odd vendors. For reader convenience, a full listing of these vendors or manufacturers, together with their headquarter addresses and telephone numbers is presented as a preface before the table entries.

The tabulations have been divided into two sections, relating to categories of word processing equipment. These categories are:

• **Standalone Word Processing Systems** — word processing "mag" keyboard or typewriter systems used for repetitive typing and text editing, standalone video display systems, configured with a display screen (usually CRT) and frequently including more sophisticated editing features than regular "mag" keyboard standalones, and personal computers utilized as standalone word processors.

• **Multi-Terminal Word Processing Systems** — multi-terminal (station, keyboard, etc.) systems where each terminal shares the word processing logic and power of a central minicomputer, as well as storage and peripherals. Included in this category are distributed logic systems which share peripherals and sometimes storage, but where computing power (logic) is dispersed among the individual stations or systems modules.

Charts for both categories of equipment are identical, except for the block of information headed "System Configuration."

Company and Model identifies the vendor manufacturer, and the specific word processing system.

For Standalone Word Processing Systems, **Configuration** discusses the individual components (keyboard, display, printer, storage) of the system. **Memory Size** shows the size of the system's internal memory.



IBM Office System 6/450

Word Processing Systems



NBI System 3000

► **Storage Medium** may be magnetic cards, tape, diskette, disk, and/or internal memory.

Magnetic card systems use an oxide coated mylar film cut to the same dimensions as the standard 3 1/2 by 7 1/2-inch punched paper card. Each magnetic card is normally associated with a separate typewritten page, but some systems can store more than one page per card.

Magnetic tape can be either the standard Philips-type cassette or any of a variety of tape cartridges. These cartridges range from IBM's 16-mm (5/8-inch) sprocketed tape, to cassette, to Olivetti's 1-inch wide 14-track endless-loop cartridge. In all cases, the length of tape, data storage capacity, and cost of the tape must be considered carefully to determine true comparisons of cost-per-character for text storage. For some systems (usually those that are minicomputer-based) industry-compatible 1/2-inch open reel magnetic tape is also available.



Vydec 1400

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Continuously rotating magnetic disks or diskettes (floppy disks) can be used to provide rapid direct access storage for text on minicomputer-based (or sophisticated hardware) systems.

Storage Capacity describes the total amount of text which may be accessed by the system without changing media. A magnetic card system has about 5,000 to 10,000 characters "on-line." A magnetic tape would hold about 25 to 60 or more pages. Floppy disks hold from 250,000 to 1 million characters depending upon whether text is recorded in single or dual density onto one or both sides of the diskette; likewise, mini-floppy diskettes hold approximately 70,000 to 300,000 characters depending upon how text is recorded. Hard disks can hold enormous quantities of text data, typically ranging from about 10 million to 80 million (or more) characters on each disk. Some word processing vendors have also begun to offer 8-inch Winchester rigid disk drives for text storage. These disk drives offer all the advantages of rigid disks in a cost-effective manner for the standalone or small-cluster user and accommodate about the same space as the 8-inch floppy disk drive. 8-inch Winchester drives are capable of holding from about 5 million to 20 million characters.

For Shared-Logic Word Processing Systems, **System Configuration** includes **System CPU/Controller**, a description of the processor which is the brain of the system (frequently an off-the-shelf minicomputer); **CPU/Controller Memory** indicates the memory size.

System Storage Media is generally diskette or disc, as described above, and includes the number of disc or diskette drives which the system may employ. **Storage Capacity** describes the total amount of on-line storage per unit of media.

File Organization describes the manner in which files (text segments of paragraph, page, document, or other length) are arranged on the storage media.

Number of Keystations Supported and Number of Printers Supported describes the maximum size to which the listed system can "grow." In some cases, the maximum size applies to the entire system, both keystations and printers; in other cases, there are individual limits.

The remainder of the table entries apply to both Stand-alone and Shared Logic systems.

Display Station Features include 20 parameters describing display function. **Screen Size and Type** lists the physical dimensions of the video display and the variety of display employed. Most displays used in word processing are CRT's (cathode ray tubes, like a television set); a few systems utilize a gas plasma display or an LED (light emitting diode). The video display is intended to ease the job of accessing, managing, and editing text. Gas plasma displays are generally more costly than CRT's but offer sharper character definition. LED's are less flexible and generally have limited vocabularies. ▶

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Word Processing Systems

► **The Display Buffer Memory** is the size of the buffer which holds the characters displayed on the screen; this number may be larger than the number of characters actually displayed, to allow a partial-page screen to scroll through a page or more.

The **screen Format and Capacity** is the number of characters per line, number of lines displayed, and total capacity (in characters) of the screen. If the screen can also display in another format (such as wide lines), this screen format and capacity will be listed in a second line.

Character Generation describes the technique used by the display to create characters on the screen. If the technology employed is Dot Matrix (and it usually is), the size of the matrix is shown.

Cursor Positioning describes the motion of the cursor (a lighted position indicator, indicated by a blinking underline or a reversed character). Most systems employ a series of arrows for up, down, left, and right movement. Many systems use a Home key to position the cursor at the upper-left corner of the screen. A few systems also offer a Reverse Home to move the cursor to the lower-right corner of the screen. Some systems use code key plus alphanumeric or function keys for cursor movement.

Vertical Scrolling is the ability of the system to move vertically, a line at a time, up and down through a page or more of text. It allows text which will not fit on the display to be accessed for review or editing. Many systems have a display buffer (memory area) larger than the display; e.g., the screen might be 66 lines, while the display buffer holds (and may vertically scroll through) 99 lines.

Horizontal Scrolling is the ability of the system to move horizontally, along a line of text, to access more characters than may be shown on the screen at one time. Several methods may be used. The system can move horizontally, one character at a time, or it may display the text in left, center, and right segments, etc. Some systems display wide lines by condensing character size, so that a larger number of characters may be displayed.

Page Scrolling permits the system to "flip" through the pages of a document, usually in both forward and backward directions, to access all the text of a multi-page document.

Display Highlighting intensifies or blinks certain portions of the screen—either the characters themselves or the screen area behind the characters—to emphasize a text segment designated for some system activity such as delete or move.

Some display screens allow the operator to utilize **Character Size Control** to choose between a full-page of text at regular character size and one-half page at double (vertical) size. A few systems also allow the operator to view a double horizontal page (for wide-page work, such as tabular reports) at half-character size.

A few systems show **Character Pitch** (10-pitch or 12-pitch characters) or **Character Spacing** (proportional spacing).

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Olivetti TES 401

ing); this means the line on the screen can be identical to the line to be printed. Most systems also show **Line Spacing** (typically 1, 1 1/2 or 2 spaces) on the display.

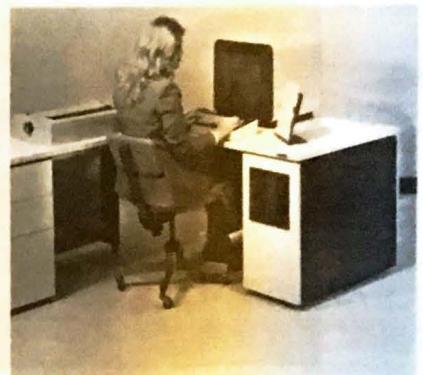
Line Justify Display allows the video display to show line justification (even right-hand margin). Most display screens show this via interword spacing (extra "white" space between words). A few displays have a proportionally spaced character set, and can display justified lines of proportionally spaced characters, with justification occurring via intercharacter spacing.

Systems which show **Underscore Display** allow underscored characters to be displayed, or display codes to indicate that the material between the codes will be underscored on printout.

Sub/Superscript Display systems permit characters to be displayed above and/or below the line, or display codes to indicate that the material between the codes will be sub- or superscripted on printout.

Systems with **Multi-Column Page Display** have the ability to display text or numerics in multiple columns. The system may also have the ability to edit by vertical column.

Stored Form Recall/Display allows the system to store a form (such as text, lines, or a combination of both) and ▶



AM Jacquard J-425

Word Processing Systems

► display it, permitting the operator to combine the form with keyboarded text. The system may also be able to store the form with text or to store form and text separately.

Some systems permit **Control Code Display**, showing instructions, commands, or codes on the video screen. In some systems, the operator may choose between displaying text with codes, or text only, as it will appear on printout.

Format Statement Display allows the operator to embed format information within text. The format statement may include such parameters as margin and tab settings, decimal tab settings, centering instructions, paragraph indentations, line spacing, pitch size, etc. Some systems have an automatic format which is used whenever the operator fails to specify a format. Some systems allow only one format per document or per page. Other systems allow the operator to change formats (and automatically call up various formats), as desired. Some systems employ a format Menu instead of a format statement for the document. This is generally stored separately and displayed separately from the document itself.

The **Printer Stations Features** section of the tables lists twelve printer parameters. There are a variety of **Printers Types** used for word processing output (and also for input on non-video display systems), but the most commonly used printers are the Selectric typewriter and the Qume or Diablo daisy wheel printer. The largest number of installed word processors (IBM Mag Card series) continue to employ the Selectric typewriter, either ordinary, off-the-shelf models, or the heavier duty model intended for use in word processors, such specially engineered units offer more durability and reliability; experience has proved that



Burroughs RII

automatic typing systems attached to standard (non-heavy duty) typewriters are best employed where large volumes of output (generally 150 wpm) will not occur.

The vast majority of non-IBM equipment (as well as IBM Qume-based systems) employ the daisy wheel print mechanism which offer higher output speeds (30 to 55 characters per second) and a variety of type styles. A few vendors also offer non-impact printers for correspondence quality word processing output. Two non-impact technologies are currently offered: ink jet and electrostatic.

In 1976, IBM introduced an ink jet printer, available as both a standalone adjunct to IBM and IBM-compatible mag card word processing systems and as the output mechanism for the IBM Office Systems 6 series. This printer spits a stream of tiny, electrostatically charged ink drops at the page, as its head moves across the paper; print speeds range from 77 to 92 cps for correspondence quality output (to 184 cps for draft quality output) and offers a variety of formats, type styles, and type sizes. Unique to this system is the ability to automatically access a choice of two types of paper plus envelopes.

In December 1978, Wang Laboratories introduced the intelligent Image Printer, the first device in the office products industry to marry an electrostatic, plain paper copier to a word processor for use as a high speed printer. The Image Printer was developed upon concepts purchased from Coburn Technology. A Komishiroku copier (identical to the Royal Bond Copier-IV) is combined with appropriate electronics and optionally joined to the Wang Office Information Systems for use as an output device. As such, the speed of the Image Printer is 18 pages ►

Word Processing Systems



Digital Equipment (DEC) WS 200

► per minute, quite a bit faster than both Selectric (about 2½ minutes per page) and daisy wheel (about 1 minute per page) technologies. The Image Printer offers the user output onto 8½" by 11" or 8½" by 14" paper in 16- to 32-lb. bond stocks. The printer is equipped with two 300-sheet trays, and can index paper in four ways: all from one tray, all from the other tray; alternate trays; or first sheet, first tray, subsequent sheets, second tray for multi-page letter applications. The Image Printer can permit two different fonts on a single page, selected from six available fonts. The unit generates multi-page documents sequentially by set, a process that allows multiple sets to be automatically collated upon output.

IBM also introduced an electrostatic-based non-impact printer in February of 1979. This product, the 6670 Information Distributor, is not just a word processing printer, however, but a multi-function device that acts as a text processor, a communications device, and a convenience copier. Truly an "office of the future" type of product, the 6670 extends the life of the IBM's mag card word processors while providing a common link for data and word processing output. The printing device of the 6670 is similar to that of a plain paper copier except that the light source used to expose the photoconductor is a low-powered, helium neon laser. The speed of the 6670

is 36 pages per minute; the unit also offers a wide range of formatting and type style options.

Many word processing vendors also offer line printers, as the main system printer or an optional peripheral.

Some Printers have **Buffer Memory** offering a storage space for text between keyboard and printer.

Character Pitch/Spacing determine the appearance of final output. Most word processors offer 10 or 12 pitch (10 or 12 characters per inch) output, often both. Element printers (e.g., the Selectric and the daisy) offer a number of type styles as well. Some word processors also offer proportionally spaced printing fonts.

Writing Line Width and Carriage Paper Width limit the number of character printed on a horizontal line and the width of the paper. Maximum writing line width is usually two inches less than physical paper width.

First Line Forms Advance allows a system fitted with a forms feeding device to automatically advance to the top (first line) of the next form at the completion of a document. This avoids the need to record keystrokes for multiple line advances. ▶

Word Processing Systems

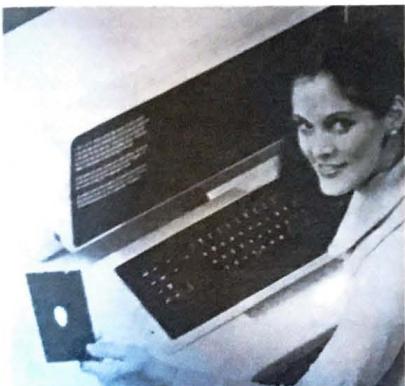


3M System 84 Information Processor

> **End-of-Page Stop** halts the printer at the end of a page for manual paper handling or font change

Justified Printout permits the printer to produce output with an even right-hand margin. This may be achieved by interword spacing (leaving extra white space between words), or, with more sophisticated devices, via inter-character spacing, which provides output with a more print-like appearance, especially when a proportionally spaced font is employed.

Sub/Superscript Printout allows characters to be printed one-half space (occasionally one-fourth or one-third)



Burroughs R III

above or below the typed line, allowing footnotes, chemical formulas and the like to be automatically printed.

Non-Adjust Printout permits the system to be instructed that a text section is to be output "as is," without margin or line length adjustment. It is used to protect tables and short lines such as addresses.

Bi-directional Printout permits the system to print line one from left to right and line two from right to left, saving a little time by avoiding unnecessary carriage (or element) movement. A few systems which employ bi-directional printing will also check for the closest margin before deciding to print a line left-to-right or right-to-left, thus can save a few seconds in printing immediately following a very short line.

Simultaneous Printout allows the system to print one document simultaneously while recording new text or revising previously recorded text. Some systems accept only one page or one document at a time for simultaneous (also called background) printing; others allow a queue of documents to be created. If the system creates a print queue, it may printout on a first-in, first-out basis, or it may allow the operator to make priority assignments.

General Functional Features includes nine system functions. **Media-Stored Format** is the ability of the system to allow format information (such as tab and margin settings, paragraph indentations, etc.) to be stored on magnetic media with the text, and to be used to format text on the display and/or during printout.

A **Default Format Statement** is information on margin settings, tabs, etc., stored for automatic implementation whenever the operator fails to designate a specific format statement.

A system which allows **Stored Multiple Formats** can store more than one format and access the desired format on operator command. Some systems have a formal routine for this operation; other systems do not, but can allow the operator to store a format statement on a special segment(s) of media and access it at will.

Machine Dialog/Menu Prompt is a system feature that allows the operator to enter into a dialog or conversation with the word processor, so that operator actions are called for by the system in a question-answer mode. This type of dialog can be particularly useful in training new operators, or in helping part-time operators through a job. Some video systems offer Menus which list operator options at each step in the wp process.

Forms Input allows the system to space automatically from field to field, with a carrier return or other single action, in filling in a prerecorded form. A few systems define fields as all numeric or all alphabetic, and reject incorrect entries.

Control Character Printout is the ability of the system to provide a printout showing all normally concealed control characters (required carriage returns, indent commands, etc.)

> etc); line numbers may also be shown on such a draft printout.

Printout Queuing allows a number of documents to be lined up for subsequent printout while the operator goes on to perform other tasks. Such printout queuing may allow only one page or one document at a time to be queued, or be very sophisticated, with multiple print queues for each printer, and large documents or multiple documents permitted in the queue. Some systems also allow documents to be deleted from the queue and/or priority documents to be inserted ahead of their normal turn.

Revision and Status Reporting is a feature of some of the more sophisticated systems (generally display-based standalone and shared logic systems) allowing the system to automatically create an index, listing the documents stored on a tape, diskette, or disk. In some cases, the index may be used as a status report, and may show such entries as the date on which the document was created, the last date on which the document was accessed and/or revised, the number of revision accesses which have occurred, and so forth. Some systems can sort indexes by Author, Department, Operator, etc., before printing a status report.

A few systems provide some form of **System Security**, sometimes in the form of a key lock, generally in place of the on/off switch, to prevent unauthorized access to the word processing system. A few of the more sophisticated systems require the keying of a confidential password before the system itself, or specific documents, are available for access or revision.

Twelve Text Input Features describe some of the techniques used by the operator in entering text on the word processor.

A system with **Auto Carrier Return** automatically performs a carrier return when the last word which will fit onto the line is typed. The system generally has a buffer to hold the word currently being typed, until it judges whether to place the word on the current line, or wrap it onto the next line. Systems which automatically perform carrier returns are speedier on input, since the typist may type at a uniform speed without pausing at each line end for a return.

With **Auto Word Wraparound** the system automatically places a word which does not fit onto the line being typed onto the next line. Frequently combined with the Auto Carrier Return feature. Also used to denote systems which can wrap words during margin adjust procedures.

Auto Margin Adjust allows the system to perform margin changes either by automatically changing line endings without further intervention, or by allowing the operator to effect changes with a multi-step process (by line, by paragraph, etc.). During margin adjust procedures, temporary hyphens are normally dropped (unless they occur at

Word Processing Systems

the end of a line), and the system may give the operator an opportunity to make new hyphenation decisions to afford a "tight" line.

With **Temporary Margins**, the system has the ability to set a second, different margin for such purposes as an indented paragraph or quotation.

Auto Decimal Tab allows the system to automatically align columns of decimal figures on the decimal point. The typist can type numbers without regard for alignment, with the system performing the aligning chore.

Hyphenation describes the method the system uses to perform hyphenations. Options generally include manual hyphenation (operator picks hyphen position), Hot Zone (a space immediately to the left of the right hand margin, is defined and any word which will not fit on this line must be hyphenated within the Hot Zone) and; Scan (operator can go through material, with system stopping at any place where a hyphenation decision is required). Some systems perform no hyphenations, but wrap any word which will not fit entirely on one line to the next line (generally, the operator can override this wrapping and perform a manual hyphenation to maintain tight lines). More sophisticated systems may use an algorithm (formula) to make hyphenation decisions, or may store a dictionary of hyphenations and make hyphenations automatically.

Auto Input Underline allows the operator to indicate the beginning and end of an underline, rather than backspacing and underlining on a character-by-character basis. Some systems allow the operator to choose between underlining words only, or underlining spaces and words. A few use code that will underline the previous or next word, line, or other text segment.

Auto Centering is the ability of the system to automatically center a word or text segment. This is usually implemented by a keystroke(s) that instructs the system to center the previous or next text segment. Text is usually centered between margins, but some systems center about



Lexitron Videotype 1000

Word Processing Systems



Wang OIS 130

► a designated point. Also, some systems can center between tab settings, for centering column headings for tabular matter.

Auto Line Spacing allows word processing systems to permit different line spacings (single, double, triple, etc.) without performing physical setting changes on the printer. This enables the typist to input text with combinations of spacing without stopping and resetting the printer during playback printout.

Auto Page Numbering is a feature of some sophisticated word processing systems (some video display standalones or shared logic systems) enabling the system to automatically generate page numbers within documents. When text is rearranged and page numbers change, the system can generate a new set of correct page numbers. This feature enables the operator to input text without regard to final page endings. The system will create pages of the desired length, and number them appropriately.

Auto Headers/Footers describes the ability of a system to place header/footer text at the top or bottom of each page of a multi-page document. The operator specifies the text once and the header/footer (usually document title, company name or confidentiality requirements) is automatically added during printout. Changes may be made on the main document text without affecting the headers and footers.

Auto Pagination permits the word processing system to take a multi-page document and divide it into pages of a requested length (in numbers of lines). Often, such ability is joined with the capability to automatically generate page numbers.

Under Text Edit & Merge Features twelve ways of manipulating and accessing text are described. **Document Assembly/Merge** is a description of the way in which the system can assemble new documents from previously recorded text. Most systems can combine prerecorded text with keyboarded text. Many systems can combine selections from prerecorded text to form a new document. This heading also describes the system's ability to join a document to such variable information as names and

addresses to create a number of nearly identical documents.

Search Capability describes the method by which the system searches for an editing point. Unsophisticated systems usually search by document, page, or paragraph number (reference code), or by line number. More sophisticated systems can also search by character string, for the first unique occurrence of some maximum number of characters.

Delete Capability lists the grammatical segments of text which may be identified and deleted. C is Character, W is Word, L is Line, S is Sentence, P is Paragraph and Page is spelled out.

Global Search and Replace is a routine which many systems can employ to search for repeated occurrences of a character string (typically up to 32, 64 or 128 characters long). In some instances, the system can automatically replace all occurrences of one character string with another character string. In other cases, the system merely locates the string for operator selected deletion or replacement. A few high-powered systems can apply logical considerations to making the replacement.

Block Move/Copy is the ability of the system to designate a block of text (generally with some maximum number of characters, related to buffer size) and to move it within the document or to another document. Most systems which can access and move blocks of text can also copy blocks to another storage location (for editing) without erasing the original text.

Column Move/Delete is used to denote whether a system can manipulate characters vertically, within a column. This feature is very important for tabular work, since a column can be moved or deleted with a minimum number of commands. In less sophisticated systems, columns must be moved or deleted a line segment at a time, in multiple steps.

Auto Repagination is a routine employed by some systems to automatically change page endings if text is inserted or deleted within a document, or if a new page length is desired. Text will be removed from or added to pages, as required, to maintain page length.

Auto Widow Adjust is related to the Auto Repagination routines and describes the ability of the system to prevent the first line of a paragraph, or a title or heading from being the last line on a page. Such a feature is especially desirable if the system paginates or repaginates automatically.

Auto File Sort is the ability of the system to perform sorts on files, arranging them in alphabetical, numerical or other order. This feature is very important on systems that sort or manipulate address lists; such changes need not be performed in alphabetical order.

Word Processing Systems



Syntex Aquarius workstation

► **Auto File Select** permits the system to make selections from data files, based on the characters which appear in a certain data field. For instance, using a zip code field, the system can select all the addresses with a 19101 zip code for forwarding one letter, and then send a different letter to zip code 19104.

Systems with **Auto Footnote Tie-In** allow footnotes to be tied to the appropriate text segment. If text segment is moved to another page or document, the footnote will travel with it. Generally, systems which are sufficiently sophisticated to offer footnote tie-in also automatically handle the division of space between the main text and footnotes.

A Term Dictionary/Glossary permits the system to store technical vocabulary or frequently used phrases (such as the corporate address, signature blocks, etc.) and retrieve them with a significantly smaller number of alphanumeric characters (usually two). This feature can greatly speed text entry with legal, medical, engineering and other applications with complex vocabulary or lots of boilerplate phrases. On systems which do not have this feature, but which do have a global search and replacement routine, it is possible to designate any single word or phrase with an "impossible" combination (say "qx") and then replace the combination throughout the document before storage or printout.

Communications discusses the **Availability** of a communications function (generally optional) and the **Format and Speeds** provided. Most word processors speak in different languages, so it is necessary to check this feature if inter-system compatibility will be required. A number of systems now offer a choice of formats and speeds and, in some cases, multiple formats and speeds, switch and keyboard selectable.

Arithmetic Capability describes the ability of a word processing system to also be used as a calculator or adding machine.

A number of the more sophisticated systems have the ability to do arithmetic tasks, a smaller number can do such tasks as part of the word processing routines, with totals embedded in text, etc.

EDP Capability discusses three parameters which describe the system's abilities to be used for general data processing tasks. **Multiprogramming** describes the ability of the word processing system to simultaneously process different programs, such as file sorting and text editing. Systems with such capabilities can process much larger quantities of material and are therefore, if properly used, more cost efficient.

Compilers are special software packages that translate a program language such as FORTRAN, COBOL, BASIC or PL-1 into machine level language. The presence of a compiler in the word processing environment generally means that the system employs a multi-purpose computer and that the manufacturer allows or encourages user programming.

Applications Software may be provided by the word processing vendor (or an independent supplier) to allow the user to perform other tasks with his word processing system, without having to write the additional software himself. Systems which offer such software are generally multipurpose computers and may or may not provide user programming capability.

Peripherals are devices (such as printers, OCR readers, and communications devices) which may be added to word processing systems as options to extend their capabilities. More sophisticated systems can frequently share a peripheral between multiple stations, making the use of a high-speed printer or other expensive piece of equipment cost-effective.

Background Information gives a few useful facts about the word processing system: its **First Delivery Date**, ▷

Word Processing Systems

▷ **Country of Manufacture** (most systems are currently manufactured in the U.S., but manufacture in countries with abundant high technology industry, such as Japan, is likely to be occurring soon), and an **Installed Base Estimate**.

Pricing and Terms gives some basic information on the **Purchase** price for each system (where various configurations, e.g., multiple keystations or printers, etc., are available, the configuration priced is noted) as well as **Rental** and **Lease** pricing.

Maintenance gives information as to the provider of maintenance (generally the manufacturer of the system, but

occasionally a component manufacturer or a third party) and sometimes lists monthly maintenance costs. Where such maintenance costs are listed they generally apply to normal maintenance (preventive and emergency) during normal working hours.

Warranty and Support gives information on the length of the warranty period for newly purchased equipment and some information on support training provided to users.

Remarks & Other Features is a catch-all category, appearing at the bottom of both pages of each chart. It gives the editor an opportunity to annotate entries and to provide comments and additional information of interest to the reader □



The Hazeltine Opus 80.

Word Processing System Vendors

ACT/Office Automation — see Advanced Computer Techniques

Advanced Computer Techniques Corp.
437 Madison Avenue
New York, NY 10022 (212) 421-4307

Adler-Royal Business Machines
Division of Lutton Industries
1600 Route 22
Union, NJ 07083 (201) 964-3200

AES Data, Ltd.
570 McCaffrey Street
Montreal, Quebec H4T 1N1, Canada (514) 341-5430

Algorithmics
177 Worcester Road
Wellesley, MA 02181 (617) 237-7226

AM Jacquard Systems
Division of AM International
3340 Ocean Park Blvd
Santa Monica, CA 90404 (213) 450-1242

Applied Computer Systems
615 N. Mary Ave.
Sunnyvale, CA 94086 (408) 733-3733

Artec — see Dictaphone Corporation

Avionic — see Basic Four/Wordstream Division

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

Burroughs Office Automation Division
30 Main Street
Danbury, CT 06810 (203) 792-6000

COMPAL, Inc.
6300 Varial Avenue
Suite E
Woodland Hills, CA 91367 (213) 992-4425

Comptek Research, Inc.
445 Cayuga Road
Buffalo, NY 14225 (716) 633-2400

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

CPT Corporation
8100 Mitchell Road
Minneapolis, MN 55440 (612) 937-8000

Daconics — see Xerox Corporation

Data Equipment Inc.
238 East Caribbean Drive
Sunnyvale, CA 94086 (408) 734-5610

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

Data Processing Design, Inc.
181 W. Orangehorpe Ave., Ste. 1
Placentia, CA 92670 (714) 993-4160

Data Terminals & Communications
590 Division Street
Campbell, CA 95008 (408) 378-1112

DEC — see Digital Equipment Corporation

Decision Systems — see Marketing Technology

A.B. Dick
Information Production Division
2200 Arthur Avenue
Elk Grove Village, IL 60007 (312) 593-8800

Dictaphone Corporation
120 Old Post Road
Rye, NY 10580

Digital Equipment Corporation
Word Processing Group
Continental Boulevard
Merrimack, NH 03054 (603) 884-5111

Edit Systems, Inc.
23505 Jefferson
St. Clair Shores, MI 48080 (313) 774-6980

Exxon — see Qyx, Vydec

Four-Phase Systems
10700 N. De Anza Blvd.
Cupertino, CA 95014 (408) 255-0000

Genesis One — see Wordstream

Hazeltine Corporation
Greenlawn, NY 11740 (516) 261-7000

IBM
Data Processing Division
1133 Westchester Avenue
White Plains, NY 10604 (914) 696-1900

IBM
General Systems Division
875 Johnson Ferry Road NE
Atlanta, GA 30342 (404) 238-2000

IBM
Office Products Division
Parsons Pond Drive
Franklin Lakes, NJ 07417 (201) 848-1900

Interactive Computer Systems
312 East 23rd Street
New York, NY 10010 (212) 677-7222

Lanier Business Products
1700 Chantilly Drive, NE
Atlanta, GA 30324 (404) 329-8000

Lextron Corporation
9600 DeSoto Avenue
Chatsworth, CA 91311 (213) 882-5040

Linolex — see 3M

Marketing Technology
103 Park Avenue, Suite 414
New York, NY 10016 (212) 889-1088

MCM Computers, Inc. — see Interactive Computer Systems

Word Processing System Vendors

Megadata Corporation

35 Orville Drive
Bohemia, NY 11716 (516) 589-6800

Micom Data Systems Ltd.

447 Saint Helen Street
Montreal, Quebec H2A 2K9 Canada (514) 341-5680

3M

3M Center
St. Paul, MN 55101 (612) 733-1110

NBI

1695 38th St.
Boulder, CO 80301 (303) 444-5710

Nixdorf Computer Corporation

168 Middlesex Turnpike
Burlington, MA 01803 (617) 273-0480

Norelco/Phillips — see Phillips Business Systems

Office Communications, Inc. — see Savin

Olivetti Corporation of America

155 White Plains Road
Tarrytown, NY 10590 (914) 631-8100

Olympic USA, Inc.

Box 22
Somerville, NJ 08876 (201) 722-7000

Ontel Corporation

250 Crossways Park Drive
Woodbury, NY 11797 (516) 364-2121

Q1 Corporation

125 Ricefield Lane
Hauppauge, NY 11787 (516) 543-7800

Quatern Terminals — see Data Equipment, Inc.

Qyx

329 Gordon Drive
Lionville, PA 19353 (215) 363-3000

Radio Shack — see Tandy Corporation

Redactron Corporation — see Burroughs Office Automation Division

Rothenberg Information Systems

260 Sheridan Avenue
Suite 312
Palo Alto, CA 94306 (415) 324-8850

Royal Business Machines, Inc.

Division of Litton Industries
150 New Park Avenue
Hartford, CT 06106 (203) 523-4881

Savin Corporation

Columbus Avenue
Valhalla, NY 10595 (914) 769-9500

Shasta General Systems

1329 Mallett Park Dr.
Sunnysvale, CA 94086 (408) 734-9360

Syntex, Inc.

1110 Centennial Ave.
Piscataway, NJ 08854 (201) 457-9200

Tandy Corporation

One Tandy Center
Fort Worth, TX 76102 (817) 390-3011

Telex Terminal Communications

3301 Terminal Drive
Raleigh, NC 27604 (919) 834-5251

Universal Microcommunication Systems, Corp.

One World Trade Center, Suite 56083
New York, NY 10048 (212) 639-0900

Vector Graphic, Inc.

31364 Via Colinas
Westlake Village, CA 91361 (213) 991-2302

Vydec, Inc.

9 Vrieland Road
Florham Park, NJ 07932 (201) 822-2100

Wang Laboratories

1 Industrial Avenue
Lowell, MA 01851 (617) 459-5000

Willow Associates

Benson East Suite 320-D
Jenkintown, PA 19046 (215) 886-1520

Wordplus

31829 West La Tienda Drive
Westlake Village, CA 91361 (213) 889-4455

Wordstream — see Basic Four Corporation

World Information Systems, Incorporated

17501 South Figueroa Street
Gardena, CA 90248 (213) 532-6730

Xerox Corporation

Office Systems Division
1341 West Mockingbird Lane
Dallas, Texas 75247 (214) 689-6000

XMark Corporation

3176 Pullman Street 119
Costa Mesa, CA 92626 (714) 556-9210

Zenith Data Systems

1000 Milwaukee Ave.
Glenview, IL 60025 (312) 391-8860

Standalone Word Processing Systems

The following tabulations cover the parameters, features and pricing of over one hundred standalone word processing systems currently marketed by forty-four different vendors.

The first or even-numbered pages cover System Configuration, Display Station Features, Printer Station Features, General Functional Features, and Text Input Features for each standalone system.

The second or odd-numbered pages continue the coverage of Text Input Features and also detail Text Edit & Merge Features; Communications, Arithmetic Capability, EDP Capability; Peripherals; Background Information; and Pricing & Terms.

Standalone Word Processing Systems

Standalone Word Processing Systems

Standalone Word Processing System				
Adler Royal Business Machines	Adler Royal Business Machines	Advanced Computer Techniques*	AES Data	COMPANY
RE 2000B/ RE 6000B	RE 2000/ RE 6000D	Ultra Text	AES Plus	MODEL
Standard Standard	Standard Standard	Standard Standard	Standard Multiple lines may be centered simultaneously	TEXT INPUT FEATURES (cont'd) Auto Input Underline Auto Centering
Standard None None Standard	Standard None None Standard	Standard Standard, 9 locations Standard Standard	Standard Standard Standard Standard	Auto Line Spacing Auto Page Numbering Auto Headers/ Footers Auto Pagination TEXT EDIT & MERGE FEATURES Document Assembly/ Merge
Stored text assembled & merged w/ keyboarded text	Stored text assembled & merged w/ keyboarded text	Stored text assembled & merged w/ keyboarded text	Stored text merged w/ keyboarded text	Search Capability Delete Capability Global Search & Replace
By C. W. L. Para, Page character string C. W. L. P.	By C. W. L. Para, Page character string C. W. L. P.	By character string (max. 40 chars.) C. L. rest of line	By docu., name, page no. & cursor position C. W. L. Page or specified block Optional program	Block Move/Copy Column Move/Delete Auto Repagination
Next or all occurrences, manual replace or delete	Next or all occurrences, manual replace or delete	Next or all occurrences, max. 60 char. string, manual or auto replacement or deletion Standard, max. 1 page	Standard	Auto Widow Adjust Auto File Sort Auto File Select
None	None	Standard, top of page integrity	Standard defines no. of lines per page	Auto Footnote Tie-In Term Dictionary/Glossary
Standard	Standard	Scan before document print, operator decision	Standard	COMMUNICATIONS Availability Format & Speed
None	None	None	Optional program	ARITHMETIC CAPABILITY EDP CAPABILITY Multiprogramming Compilers
None	None	Standard	None	Applications Software
None	None	None	Standard Optional program	PERIPHERALS
None	None	Optional Programmable for asynch. or sync. 9600 to 72K bps	Optional \$1,800 Half duplex IBM 2741 compat. at 134 or 300 baud, 2780 compat. Auto/Sub. Mult./Div. Percent None None	BACKGROUND INFORMATION First Delivery Date Country of Manufacture Installed Base Estimate PRICING & TERMS Purchase
None	None	Standard Assembler, FORTRAN IV, COBOL, BASIC Accounting	Optional programs	Rental Lease Maintenance Warranty & Support
None	None	All Honeywell Level 6 peripherals, OCR	OCR, paper tape punch, dual sheet feeder, wide track prf. Diablo prf. opt. shared printer control	REMARKS & OTHER FEATURES
October 1979 West Germany	July 1980 West Germany	November 1976 USA 35	October 1977 Canada 3,500	
\$5,475	\$6,675	\$22,500	\$13,900	
3rd party	3rd party	\$1,211/mo (1-yr)	—	
\$650/yr	—	3rd party	—	
90 days, MSR support	90 days, MSR support	\$183/mo	—	
		Honeywell service & support	—	
		*Formerly Base Information Systems	\$2,780 package at 2000 or 2400 baud ASCII, TTY	

Standalone Word Processing Systems

COMPANY	Adler-Royal Business Machines	Adler-Royal Business Machines	Advanced Computer Techniques*	AES Data
MODEL	SE 2000	SE 2000D SE 6000D	Ultra-Text	AES Plus
SYSTEM CONFIGURATION Configuration	Keyboard/printer, diskette unit	Keyboard/printer, diskette unit	Keyboard/CRT, CPU, printer	Keyboard/CRT, diskette console, printer
Memory Size Storage Media	4,000 characters Single mini-diskette	4,000 characters Single mini-diskette	—	32K up to 96K Dual diskette, extended disk optional*
Storage Capacity DISPLAY STATION FEATURES	64K chars / diskette	64K chars / diskette	256K chars / diskette	69K chars / mini disk 300K chars / std disk 14" diagonal CRT 8192 chars 24 line x 80 chars (1920 chars total) Dot matrix Left, right, up, down, home, end of text Standard to 99 lines Std. to 254 chars / line
Screen Size & Type	Not Available	1" x 8" vacuum fluor	5" x 10" CRT	None
Display Buffer Memory Format & Capacity	Not Available	4,000 chars	—	4,000 chars
Character Generation Cursor Positioning	Not Available	1 line x 40 characters (40 chars. total)	24 line x 80 chars (1920 chars total)	5 x 11 dot matrix 7 x 9 dot matrix
Vertical Scrolling	Not Available	Left, right	Left, right, up, down	Left, right, up, down
Horizontal Scrolling	Not Available	None	Standard	Standard
Page Scrolling	Not Available	Standard	Standard	Standard
Display Highlighting	Not Available	None	Standard	Standard
Character Size Control	Not Available	None	None	Half-tone background
Character Pitch Display	Not Available	None	None	None
Character Spacing Display	Not Available	None	None	Standard
Line Spacing Display	Not Available	None	None	Standard
Line Justify Display	Not Available	None	None	Standard
Underscore Display	Not Available	Standard	Standard	Standard
Sub-/Superscript Display	Not Available	Standard	Codes only	Standard
Mult-Column Page Display	Not Available	None	None	Standard
Stored Form Recall/Display	Not Available	Standard	Standard	Standard
Control Code Display	Not Available	Standard	Standard	Standard
Format Statement Display	Not Available	Standard	Standard	Standard
PRINTER STATIONS FEATURES	Single element, 20 cps	Single element, 20 cps	Diablo daisy 45 cps	Qume daisy 45 cps
Printer Type & Speed	40 chars	40 chars	150 chars	N/A
Printer Buffer Memory	10/12/15/ 3 sizes prop	10/12/15/ 3 sizes prop	10" 12"	Variable
Character Pitch/Spacing	13"	13"	13" and 26" opt.	13" and 26" opt.
Writing Line Width	15"	15"	15"	15" and 28" opt.
Carrage Paper Width	Standard	Standard	Standard	Standard
First Line Forms Advance	Standard	Standard	Std., intercharacter sp	Standard
End-Of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub-/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	None	None	Standard	Standard
Bi-directional Printout	None	None	Standard	Standard
Simultaneous Printout	None	None	Standard	Standard
GEN FUNCTIONAL FEATURES	Standard	Standard	Standard	Standard
Media Stored Format	Standard	Standard	None	Standard
Default Format Statement	Standard	Standard	None	Standard
Stored Multiple Formats	Standard	Standard	Prompting cues & error messages	Status line on display, mnemonics
Machine Dialog/Menu Prompt	None	None	None	Standard
Forms Input	Standard	Standard	Optional	Programmable for asynch. or bisonic.
Control Character Printout	None	None	Prints from display buffer or diskette	9600 to 72K bps
Printout Queuing	None	None	Optional line count	Standard
Revision & Status Reporting	Standard	Standard	Document index & summary	All Honeywell Level 6 peripherals, OCR
System Security	None	None	None	Optional programs
TEXT INPUT FEATURES	Standard	Standard	Optional**	OCR paper tape punch, dual sheet feeder, wide track ptr, Diablo ptr, opt shared printer control
Auto Carrier Return	Standard	Standard	Optional**	October 1979 West Germany
Auto Word Wraparound	Standard	Standard	Standard	July 1980 West Germany
Auto Margin Adjust	Standard	Standard	Standard	November 1976 USA 35
Temporary Margins	Standard	Standard	Standard	October 1977 Canada 3,500
Auto Decimal Tab	Standard	Standard	None	Background Information
Hyphenation	Adjustable Hot Zone	Adjustable Hot Zone	Stored algorithm or manual, 10-char. Hot Zone	First Delivery Date
REMARKS & OTHER FEATURES			*Formerly Base Information Systems. **Additional \$1,500	Country of Manufacture
			*Extended feature includes 2 mini and two standard diskettes	Installed Base Estimate

Standalone Word Processing Systems

COMPANY	Adler-Royal Business Machines	Adler-Royal Business Machines	Advanced Computer Techniques*	AES Data	MODEL
	SE 2000B / SE 6000B	SE 2000D / SE 6000D	Ultra-Text	AES Plus	TEXT INPUT FEATURES (cont'd)
	Standard	Standard	Standard	Standard	Auto Input Underline
	Standard	Standard	Standard	Standard	Auto Centering
	Standard	Standard	Standard	Standard	Auto Line Spacing
	None	None	Standard	Standard	Auto Page Numbering
	None	None	Standard	Standard	Auto Headers/Footers
	Standard	Standard	Standard	Standard	Auto Pagination
	Standard	Standard	Standard	Standard	TEXT EDIT & MERGE FEATURES
	Standard	Standard	Standard	Standard	Document Assembly/Merge
	Standard	Standard	Standard	Standard	Search Capability
	Standard	Standard	Standard	Standard	Delete Capability
	Standard	Standard	Standard	Standard	Global Search & Replace
	Standard	Standard	Standard	Standard	Block Move/Copy
	Standard	Standard	Standard	Standard	Column Move/Delete
	Standard	Standard	Standard	Standard	Auto Repagination
	Standard	Standard	Standard	Standard	Auto Widow Adjust
	Standard	Standard	Standard	Standard	Auto File Sort
	Standard	Standard	Standard	Standard	Auto File Select
	Standard	Standard	Standard	Standard	Auto Footnote Tie-In
	Standard	Standard	Standard	Standard	TERM DICTIONARY/GLOSSARY
	Standard	Standard	Standard	Standard	COMMUNICATIONS AVAILABILITY
	Standard	Standard	Standard	Standard	FORMAT & SPEED
	Standard	Standard	Standard	Standard	ARITHMETIC CAPABILITY
	Standard	Standard	Standard	Standard	EDP CAPABILITY
	Standard	Standard	Standard	Standard	Multiprogramming
	Standard	Standard	Standard	Standard	Compilers
	Standard	Standard	Standard	Standard	APPLICATIONS SOFTWARE
	Standard	Standard	Standard	Standard	PERIPHERALS
	Standard	Standard	Standard	Standard	BACKGROUND INFORMATION
	Standard	Standard	Standard	Standard	First Delivery Date
	Standard	Standard	Standard	Standard	Country of Manufacture
	Standard	Standard	Standard	Standard	Installed Base Estimate
	Standard	Standard	Standard	Standard	PRICING & TERMS
	Standard	Standard	Standard	Standard	PURCHASE
	Standard	Standard	Standard	Standard	Rental
	Standard	Standard	Standard	Standard	Lease
	Standard	Standard	Standard	Standard	Maintenance
	Standard	Standard	Standard	Standard	Warranty & Support
	Standard	Standard	Standard	Standard	REMARKS & OTHER FEATURES
	Standard	Standard	Standard	Standard	*Formerly Base Information Systems
	Standard	Standard	Standard	Standard	\$2780 package at 2000 or 2400 baud, ASCII TTY

Standalone Word Processing Systems

COMPANY	AES Data	Algorithmics, Inc.	AM Jacquard	AM Jacquard
MODEL	AES-100	Algo 2100	J 225	J 425
SYSTEM CONFIGURATION Configuration	Keyboard/CRT, control console diskette console printer	Keyboard, CRT, diskette console, printer	Typewriter cassette console	Keyboard/CRT, integral desk printer
Memory Size Storage Media	32K up to 48K Dual 8" diskette	48K (expandable) Dual diskette (5 or 8-inch)	—	Dual diskette
Storage Capacity DISPLAY STATION FEATURES Screen Size & Type	300K chars./diskette	164K (5"), 250K (8")	120K chars./cassette	256K chars./diskette
Display Buffer Memory Format & Capacity	14" diagonal CRT 8192 chars. 24 lines x 80 chars. (1920 chars. total)	12" diagonal CRT 1920 characters 24 lines x 80 chars. (1920 chars. total)	Not Available Not Available	17" diagonal CRT 4320 chars. 56 lines x 80 chars. (6656 chars. total) 7 x 10 user programmable Left, right, up, down, top, bottom
Character Generation Cursor Positioning	Dot matrix	Not Available	Not Available	7 x 13 dot matrix Left, right, up, down, home, end of text
Vertical Scrolling Horizontal Scrolling	Standard	Standard	Standard	Standard
Page Scrolling	None	Standard	Not Available	Standard to 253 char
Display Highlightrning	Flashing	Standard	Not Available	Standard
Character Size Control	None	Optional	Not Available	Standard
Character Pitch Display	Standard	Codes only	Not Available	None
Character Spacing Display	None	Codes only	Not Available	None
Line Spacing Display	Standard	Standard	Not Available	Standard
Line Justify Display	Standard	Standard	Not Available	None
Underscore Display	Standard	Standard	Not Available	Standard
Sub-Superscript Display	None	Codes only	Not Available	Standard
Multi-Column Page Display	Standard	—	Not Available	Standard
Stored Form Recall/Display	Standard	Standard	Not Available	Standard
Control Code Display	Standard	Standard	Not Available	Standard
Format Statement Display	Standard	Standard	Not Available	Standard
PRINTER STATIONS FEATURES Printer Type & Speed	Qume daisy 45 cps N/A	Daisy wheel, 45 cps*	IBM Selectric 15 5 cps	Qume daisy 55 cps
Printer Buffer Memory	None	None	None	None
Character Pitch / Spacing	Variable	1 to 120	6 to 16	6 to 16
Writing Line Width	13" and 26" opt. 15" and 28" opt.	13" or 15" 15"	13" and 25 3" opt. 15 5" and 28" opt.	13" and 25 3" opt. 15 5" and 28" opt.
Carriage Paper Width	Standard	Standard	Standard	Standard
First Line Forms Advance	Standard	Standard	Optional*	Standard
End Of Page Stop	Standard	Standard	None	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub-Superscript Printout	Standard	Standard	None	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	None	Standard
Simultaneous Printout	Standard	Optional	None	Standard
GEN FUNCTIONAL FEATURES Media-Stored Format	Standard	Standard	Optional**	Standard
Default Format Statement	Standard	Standard	None	Standard
Stored Multiple Formats	Standard	Standard	None	Standard
Machine Dialog/Menu Prompt	Prompting cues & error messages, mnemonics	Menus & operator cueing	None	Status lines on display
Forms Input	Standard	Standard	None	Standard
Control Character Printout	Optional	Standard	None	None
Printout Queuing	None	Standard	None	Standard
Revision & Status Reporting	Optional line count	Standard	Status & error messages	Index shows last document access
System Security	Write protect on diskette	Optional, keylock & password	None	None
TEXT INPUT FEATURES Auto Carriage Return	Standard	Standard	None	Standard
Auto Word Wraparound	Standard	Standard	None	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab Hyphenation	Standard	Manual	None	Manual, 7-char. Hot Zone
REMARKS & OTHER FEATURES		*Scientific printer avail with Greek Math/English chars. & symbols on single printwheel	*End of page lockout, \$150 **Auto tab set & clear, \$150	Standard algorithm—automatic or selectable

AES Data	Algorithmics, Inc.	AM Jacquard	AM Jacquard	COMPANY
AES-100	Algo 2100	J 225	J 425	MODEL
Standard Multiple lines may be centered simultaneously	Standard Multiple lines centered simultaneously	None	Standard	TEXT INPUT FEATURES (cont'd) Auto Input Underline Auto Centering
Standard	Standard	None	Standard	Auto Line Spacing Auto Page Numbering Auto Headers/Footers Auto Pagination
Standard	Standard	None	Standard	TEXT EDIT & MERGE FEATURES Document Assembly/Merge
Standard	Standard	None	Standard	Search Capability
Standard	Standard	By reference codes & C. W. L. & P.	By docu. name, page no. & cursor position C. W. L. Page & specified block Standard, max. 39-char string	Delete Capability Global Search & Replace
Standard	By character string	Standard	Standard	Block Move/Copy Column Move/Delete Auto Repagination
Standard	C. W. L. P. Page & specified block Standard	Standard	Standard	Auto Widow Adjust Auto File Sort Auto File Select
Standard	Deletion or move across another column Operator defines no of lines per page	Standard	Standard	Auto Footnote Tie-In Term Dictionary/Glossary
Standard	Standard, oper. controls amt. of text forced Alphanumeric sorts w/in page disk sort	Standard	Standard	COMMUNICATIONS Availability Format & Speed
Standard	None	Optional	Optional	ARITHMETIC CAPABILITY EDP CAPABILITY Multiprogramming Compilers
Optional: \$1,800 Half duplex, IBM 2741 or 2780-compat. at 134 or 300 baud ASCII, TTY Add/Sub/Mult/Div/Percent.	Optional: \$1,800 Half duplex, IBM 2741 or 2780-compat. at 134 or 300 baud ASCII, TTY Add/Sub/Mult/Div/Percent.	Optional: \$1,800 TTY, 2741, 2780, others, 65-9600 baud	Optional: \$1,800 Asynch. IBM 2741, CMC, ASCII compat. at 110 to 1200 baud	Applications Software PERIPHERALS
None	None	None	Standard	Background Information First Delivery Date
Optional	Optional	Optional	None	Country of Manufacture
Basic, Fortran, Cobol, APL Assembler, PASCAL, PILOT Payroll, billing, gen ledger, mailing list, OCR, Photocopy line printers, RS 232 devices, Winchester & removable cartridge disks, others	Basic, Fortran, Cobol, APL Assembler, PASCAL, PILOT Payroll, billing, gen ledger, mailing list, OCR, Photocopy line printers, RS 232 devices, Winchester & removable cartridge disks, others	Optional programs	Optional programs	Installed Base Estimate
None	None	None	None	PRICING & TERMS Purchase
None	None	Tape-to-disk interface, OCR, phototypesetter interface, mag card	Tape-to-disk interface, OCR, phototypesetter interface, mag card	Rental
Optional programs	September 1976 Canada 2,100	August 1977 USA 40	September 1977 USA 40	Maintenance
\$16,900	\$12,500 (5" diskettes) \$14,900 (8" diskettes) Evaluators and rentals avail. in some areas Figures avail. upon request \$75/mo.	\$3,995 \$170 (12-mo.) \$138 (3-yr) \$103 (5-yr) \$420/yr 90 days	\$14,500* \$575 (1-yr) \$362 (5-yr) \$900/yr 90 days parts & labor	Warranty & Support
				REMARKS & OTHER FEATURES *\$16,500 w/wide carriage printer, \$9,995 w/o printer

Standalone Word Processing Systems

COMPANY	AM Jacquard	Applied Computer Systems	Basic Four Wordstream	Burroughs
MODEL	J 500	Smart Alec	WS 1000	Burroughs R II
SYSTEM CONFIGURATION				
Configuration	Keyboard/CRT diskette console, printer	Keyboard/CRT, diskette console, printer	CPU console, keyboard/CRT, printer	Keyboard/CRT/tape console, printer
Memory Size	128K	Up to 64K	64K or 128K	—
Storage Media	Disk, diskette	Dual diskette*	Dual diskette	Dual cassette*
DISPLAY STATION FEATURES				
Screen Size & Type	24 x 48 Mb disk, 1 Mb disk	300K chars — 4.8 Mb	351.120 chars /diskette	80K chars /cassette
Display Buffer Memory	12" diag CRT green/white	15" diagonal CRT	8" x 10.5"	8" x 11" CRT
Format & Capacity	1,920 characters	Aprox. 10 pgs	—	9K
Character Generation	24 lines x 80 chars	24 lines x 80 chars	57 lines x 80 chars	60 lines x 70 chars, (10 p.) x 84 chars, (12 p.)
Cursor Positioning	(1920 chars total)	(1920 chars total)	(4,560 chars total)	7 x 9 dot matrix
Vertical Scrolling	8 x 10 dot matrix	Left, right, up, down, home	Left, right, up, down, home	8 x 12 dot matrix
Horizontal Scrolling	Standard	Standard	None	Left, right, up, down
Page Scrolling	Up to 450 chars	Standard	Up to 98 lines	Up to 158 chars
Display Highlighting	Standard, intensifying	Standard	Standard	Standard
Character Size Control	Standard, intensifying*	Standard	Standard	Flash, reverse, intensify
Character Pitch Display	None	None	None	Standard
Character Spacing Display	None	Standard	None	Standard
Line Spacing Display	None	Standard	None	10.12/ prop
Line Justify Display	None	Standard	Standard	1, 2, 3
Underscore Display	Standard	Standard	Standard	Standard
Sub Superscript Display	Standard	Codes only	Standard	Standard
Multi-Column Page Display	Standard	Codes only	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER STATIONS FEATURES	Standard	Standard	None	Standard
Printer Type & Speed	Daisy 30-45 55 cps**	Daisy wheel 45 cps	Daisy wheel 45 cps*	Daisy wheel 55 cps**
Printer Buffer Memory	32K chars	32K chars	4K	4K
Character Pitch/Spacing	10.12/ prop	10.12/ proportional	10.12/ proportional	10.12/ proportional
Writing Line Width	13 1/2" and 26 1/4" opt	13" 26 1/2"	13" 26 1/2"	13" 26 1/2"
Carrage Paper Width	15" and 28 1/4" opt	15"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-Of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bi-directional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GEN. FUNCTIONAL FEATURES	Standard	Standard	Standard	Standard
Media Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog/Menu Prompt	Standard	Standard	None	Error messages
Forms Input	Standard	Standard	Standard	Standard***
Control Character Printout	Standard	Standard	Standard	Standard
Printout Queuing	Standard	Standard	None	1 page
Revision & Status Reporting	Standard	Standard	Manual, operator option via index entries	Document index w/ productivity reports
System Security	Keylock & password	File protect	Standard	None
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	Scan Hyphenation: adjustable Hot Zone	Stored algorithm	Manual, 5-character Hot Zone	Manual, adjustable Hot Zone
REMARKS & OTHER FEATURES	*Blink, Reverse **Curved wide track, Disable TI, Printronics, NEC	*Dual density, double sided disks available	*55 cps (Optional)	*Dual mag card and dual media (card & cassette) models avail. **Line printers avail ***User programmable forms input avail.

Standalone Word Processing Systems

AM Jacquard	Applied Computer Sys	Basic Four Wordstream	Burroughs	COMPANY
J500	Smart Alec	WS 1000	Burroughs R II	MODEL
Standard	Standard	Standard	Standard, also double between margins or about any point	TEXT INPUT FEATURES (cont'd)
Standard	Standard	Standard	Standard	Auto Input Underline
Standard	Standard	Standard	Standard	Auto Centering
Standard	Standard	Standard	Standard	Auto Line Spacing
Standard	Standard	Standard	Standard	Auto Page Numbering
Standard	Standard	Standard	Standard	Auto Headers/Footers
Standard	Standard	Standard	Standard	Auto Pagination
Standard	Standard	Standard	Standard	TEXT EDIT & MERGE FEATURES
Standard	Standard	Standard	Standard	Document Assembly/Merge
Standard	Standard	Standard	Standard	Search Capability
Standard	Standard	Standard	Standard	Delete Capability
Standard	Standard	Standard	Standard	Global Search & Replace
Standard	Standard	Standard	Standard	Block Move/Copy
Standard	Standard	Standard	Standard	Column Move/Delete
Standard	Standard	Standard	Standard	Auto Repagination
Standard	Standard	Standard	Standard	Auto Widow Adjust
Standard	Standard	Standard	Standard	Auto File Sort
Standard	Standard	Standard	Standard	Auto File Select
Standard	Standard	Standard	Standard	Auto Footnote Tie-In
Standard	Standard	Standard	Standard	Term Dictionary/Glossary
Standard	Standard	Standard	Standard	COMMUNICATIONS
Standard	Standard	Standard	Standard	Availability
Standard	Standard	Standard	Standard	Format & Speed
Standard	Standard	Standard	Optional	Optional Asynch 110-1200 baud
Standard	Standard	Standard	Optional	Column totaling
Standard	Standard	Standard	None	ARITHMETIC CAPABILITY
Standard	Standard	Standard	None	EDP CAPABILITY
Standard	Standard	Standard	Optional	Multiprogramming
Standard	Standard	Standard	None	Compilers
Standard	Standard	Standard	Optional	Applications Software
Standard	Standard	Standard	None	PERIPHERALS
Standard	Standard	Standard	None	Line printer, photo-composition interface
Standard	Standard	Standard	None	BACKGROUND INFORMATION
Standard	Standard	Standard	None	First Delivery Date
Standard	Standard	Standard	None	Country of Manufacture
Standard	Standard	Standard	None	Installed Base Estimate
Standard	Standard	Standard	None	PRICING & TERMS
Standard	Standard	Standard	None	Purchase
Standard	Standard	Standard	Standard	Rental
Standard	Standard	Standard	Standard	Lease
Standard	Standard	Standard	Standard	Maintenance
Standard	Standard	Standard	Standard	Warranty & Support
Standard	Standard	Standard	Standard	REMARKS & OTHER FEATURES
Standard	Standard	Standard	Standard	Includes 128K CPU, display station, dual diskette drive, word processing printer, & communications
Standard	Standard	Standard	Standard	Automatic Speller/Proofreader, 12,000 word user expandable dictionary, Complete Data Base Management Systems, Legal Accounting Package

Standalone Word Processing Systems

COMPANY	Burroughs	Burroughs	Burroughs	Burroughs
MODEL	R II/240	R II/250	R III/320	R III/330
SYSTEM CONFIGURATION				
Configuration	Keyboard/CRT/diskette console, printer	Keyboard/CRT/diskette console, printer	Keyboard/CRT/diskette console, printer	Keyboard/CRT/diskette console, printer
Memory Size	—	—	—	—
Storage Media	Dual diskette	Dual diskette	Dual diskette	Dual diskette
Storage Capacity	144K chars./diskette	288K chars./diskette	144K chars./diskette	144K chars./diskette
DISPLAY STATION FEATURES				
Screen Size & Type	8" x 11" CRT	8" x 11" CRT	9" diagonal	9" diagonal
Display Buffer Memory	9K	9K	9K characters	9K characters
Format & Capacity	60 lines x 70 chars. (10p) x 84 chars (12p)	60 lines x 70 chars. (10p) x 84 chars (12p)	30 lines x 72 chars (10 pitch) 84 chars (12p)	30 lines x 72 chars (10 pitch) 84 chars (12p)
Character Generation	8 x 12 dot matrix	8 x 12 dot matrix	8 x 12 dot matrix	8 x 12 dot matrix
Cursor Positioning	Left, right, up, down	Left, right, up, down	Char., word, field, line, para, page	Char., word, field, line, para, page
Vertical Scrolling	Up to 98 lines	Up to 98 lines	To 121 lines	To 121 lines
Horizontal Scrolling	Up to 158 chars	Up to 158 chars	To 200 chars	To 200 chars
Page Scrolling	Standard	Standard	None	None
Display Highlighting	Flash, reverse, intensify	Flash, reverse, intensify	Flash, rev., intensify	Flash, rev., intensify
Character Size Control	Standard	Standard	Standard	Standard
Character Pitch Display	Standard	Standard	10/12	10/12
Character Spacing Display	10-12/prop	10-12/prop	Mono	Mono
Line Spacing Display	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3
Line Justify Display	Standard	Standard	None	None
Underscore Display	Standard	Standard	Standard	Standard
Sub Superscript Display	Standard	Standard	Standard	Standard
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER STATIONS FEATURES				
Printer Type & Speed	Daisy wheel 55 cps**	Daisy wheel 55 cps**	Daisy wheel 55 cps	Daisy wheel 55 cps
Printer Buffer Memory	4K	4K	4K characters	4K characters
Character Pitch/Spacing	10/12-prop	10/12-prop	10/12/15-prop	10/12/15-prop
Writing Line Width	13.2"	13.2"	13.2"	13.2"
Carriage Paper Width	15.5"	15.5"	15.5"	15.5"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-Of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bi-directional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GEN. FUNCTIONAL FEATURES				
Media Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog/Menu Prompt	Error messages	Error messages	Error messages	Error messages
Forms Input	Standard***	Standard***	None	None
Control Character Printout	Standard	Standard	Standard	Standard
Printout Queuing	10 pages	10 pages	32 pages	32 pages
Revision & Status Reporting	Document index w/ productivity reports	Document index w/ productivity reports	Standard	Standard
System Security	Disk, file, documents	Disk, file, documents	Standard	Standard
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	Manual, adjustable Hot Zone	Manual, adjustable Hot Zone	Manual, adjustable hot zone	Manual, adjustable hot zone
REMARKS & OTHER FEATURES	*3 Diskette, 2 Diskette & Tape, 2 Diskette & Card Models avail **Line printer avail ***User-programmable forms input avail	*3 Diskette, 2 Diskette & Tape, 2 Diskette & Card Models avail **Line printer avail ***User-programmable forms input avail		

Standalone Word Processing Systems

Burroughs	Burroughs	Burroughs	Burroughs	COMPANY
R II/240	R II/250	R III/320	R III/330	
Standard, also double between margins or about any point	Standard, also double between margins or about any point	Standard	Standard	MODEL
Standard	Standard	Between margins or around a point	Between margins or around a point	TEXT INPUT FEATURES (cont'd)
Standard	Standard	Standard	Standard	Auto Input Underline
Standard	Standard	Standard	Standard	Auto Centring
Standard	Standard	Standard	Standard	Auto Line Spacing
Standard	Standard	Standard	Standard	Auto Page Numbering
Standard	Standard	Standard	Standard	Auto Headers/Footers
Standard	Standard	Standard	Standard	Auto Pagination
Standard	Standard	Standard	Standard	TEXT EDIT & MERGE FEATURES
Standard	Standard	Standard	Standard	Document Assembly/Merge
Standard, also assembled & merged w/keyboarded text	Standard, also assembled & merged w/keyboarded text	Two stored text files merged to create new file or printed document	Model 330 contains ability to create new documents from file of central documents	Search Capability
By file or char. string	By file or char. string	By record or character string	Character width, line, paragraph page	Delete Capability
C, W, L, P, Page	C, W, L, P, Page	Character, width, line, paragraph page	Character width, line, paragraph page	Global Search & Replace
Standard	Standard	Standard	Standard	Block Move/Copy
500-char max block, opt 3850-char max	500-char max block, opt 3850-char max	Character, width, line, paragraph page	Character width, line, paragraph page	Column Move/Delete
Standard	Standard	Standard	Standard	Auto Repagination
Standard	Standard	Standard	Standard	Auto Widow Adjust
None	None	None	None	Auto File Sort
Standard	Standard	Standard	Standard	Auto File Select
Optional	Optional	Optional	Optional	Auto Footnote Tie-In
Asynch. 110-1200 baud.	Asynch. 110-1200 baud.	Asynch. 110-1200 baud.	Asynch. 110-1200 baud.	Term Dictionary/Glossary
Direct connect to 9600 baud	Direct connect to 9600 baud	Direct Connect to 9600 baud	Direct Connect to 9600 baud	COMMUNICATIONS
Optional	Optional	Optional	Optional	Availability
None	None	None	None	Format & Speed
Standard	Standard	Standard	Standard	ARITHMETIC CAPABILITY
Optional	Optional	Optional	Optional	EDP CAPABILITY
None	None	None	None	Multiprogramming
Standard	Optional	Optional	Optional	Compilers
Line printer, photocomposition interface, OCR paper feeder	Line printer, photocomposition interface, OCR paper feeder	Photocomp interface, shared printer, OCR paper feeder	Photocomp interface, shared printer, OCR paper feeder	APPLICATIONS SOFTWARE
— USA	December 1979 USA	December 1979 USA	December 1979 USA	PERIPHERALS
\$14,400*	\$10,650 w/o printer \$515 (12-mo)*	\$15,400* \$11,650 w/o printer \$550 w/o printer \$430 w/o printer	\$6,145 w/o printer \$9,895 w/o printer \$220 (1-yr) w/o printer	BACKGROUND INFORMATION
—	—	\$340 (1-yr) w/o printer	\$7,750 w/o printer \$11,500 w/o printer \$280 (1-yr) w/o printer	First Delivery Date
\$75/mo *	—	\$80 w/o printer \$50 w/o printer	\$400 (1-yr) w/o printer \$40 (w/o printer) \$70 (w/o printer)	Country of Manufacture
—	—	—	—	Installed Base Estimate
*Dual diskette model with 55 cps printer, math package, forms mode, global dir., cataloging, para no., shared printing, user programming	*Dual diskette model with 55 cps printer, math package, forms mode, global dir., cataloging, para no., shared printing, background comm., user programming	PRICING & TERMS	Purchase	PRICING & TERMS
Executive proofreading aid, auto paragraph numbering	—	Rental	Lease	Rental
—	—	Maintenance	Maintenance	Maintenance
—	—	Warranty & Support	Warranty & Support	Warranty & Support
REMARKS & OTHER FEATURES				

Standalone Word Processing Systems

COMPANY	Burroughs	Burroughs	COMPAL	Compucorp
MODEL	R III/340	R III/350	WORDPAL (8100 & 8200)	Text/One
SYSTEM CONFIGURATION	Keyboard/CRT/diskette console/printer	Keyboard/CRT/diskette console/printer	Keyboard/CRT/diskette console/printer	Keyboard/CRT, dual diskette drive, printer
Memory Size	Dual diskette	Dual density, dual sided diskette	56K	48K to 60K
Storage Media	144K chars./diskette	288K chars./diskette	Dual mini-diskette	Dual cassette
DISPLAY STATION FEATURES				to 630K chars total
Screen Size & Type	9" diagonal	9" diagonal	12" diagonal CRT	CRT
Display Buffer Memory	9K characters	9K characters	32K	—
Format & Capacity	30 lines x 72 chars (10 pitch) 84 chars (12p)	30 lines x 72 chars (10 pitch) 84 chars (12p)	16 lines x 64 chars *	20 lines x 80 characters **
Character Generation	8 x 12 dot matrix	8 x 12 dot matrix	24 lines x 80 chars **	
Cursor Positioning	Char., word, field, line para, page	Char., word, field, line para, page	7 x 9 dot matrix	10 x 12 dot matrix
Vertical Scrolling	To 121 lines	To 121 lines	Left, right, up, down, home	Left, right, up, down, home left, home right*
Horizontal Scrolling	To 200 chars.	To 200 chars.	Standard	Standard, to 155 chars.
Page Scrolling			Forward & reverse	Standard
Display Highlighting	None	None	—	None
Character Size Control	Flash, rev., intensify	Flash, rev., intensify	Inverse video	None
Character Pitch Display	Standard	Standard	None	None
Character Spacing Display	10 12	10 12	Standard	Standard
Line Spacing Display	Mono	Mono	Standard	Standard
Line Justify Display	1, 2, 3	1, 2, 3	Standard	Standard
Underscore Display	None	None	Codes only	Standard
Sub-Script/Superscript Display	Standard	Standard	Codes only	None
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER STATIONS FEATURES				
Printer Type & Speed	Daisy wheel, 55 cps	Daisy wheel, 55 cps	Thimble, 55 cps***	—
Printer Buffer Memory	4K characters	4K characters	256 chars	200 characters
Character Pitch/Spacing	10/12/15' prop	10/12/15' prop	Variable 1 to 120 pitch	10/12
Writing Line Width	13 2"	13 2"	13"	14"
Carriage Paper Width	15 5"	15 5"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-Of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub-Superscript Printout	Standard	Standard	Standard	Non
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bi-directional Printout	Standard	Standard	Standard	None
Simultaneous Printout	Standard	Standard	Standard	Standard
GEN FUNCTIONAL FEATURES				
Media-Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	Standard	None
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog / Menu Prompt	Error message	Error message	Error message	Standard
Forms Input	None	None	Standard	Standard
Control Character Printout	Standard	Standard	None	None
Printout Queuing	32 pages	32 pages	Standard	Standard
Revision & Status Reporting	Standard	Standard	None	None
System Security	Standard	Standard	None	Standard
TEXT INPUT FEATURES				
Auto Carriage Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	None	Standard
Auto Decimal Tab	Standard	Standard	Standard	None
Hyphenation	Manual, adjustable hot zone	Manual, adjustable hot zone	Stored algorithm	Variable Hot Zone
REMARKS & OTHER FEATURES				
		*8100 **8200 ***Daisy Wheel printer optional w/ both models.	*Next word, previous word, begin/end of document. Document or letter oriented. Virtual scrolling on disk.	

Standalone Word Processing Systems

Burroughs	Burroughs	COMPAL	Compucorp	COMPANY
R III/340	R III/350	WORDPAL (8100 & 8200)	Text/One	MODEL
Standard	Standard	Standard	Standard	TEXT INPUT FEATURES (cont'd)
Between margins or around a point	Between margins or around a point	Standard	Standard	Auto Input Underline
Standard	Standard	Standard	Standard	Auto Line Spacing
Standard	Standard	Standard	Standard	Auto Page Numbering
Standard	Standard	None	Standard	Auto Headers/Footers
Standard	Standard	Standard	Standard	Auto Pagination
Model 340 contains ability to create new documents from file of central documents	Model 340 contains ability to create new documents from file of central documents	Stored text assembled & merged w/keyboarded text	Stored text assembled & merged w/keyboarded text	TEXT EDIT & MERGE FEATURES
By record or character string	By record or character string	By character string	—	Search Capability
Character width, line, paragraph, page	Character width, line, paragraph, page	C. W. L. S. P. specified block	—	Delete Capability
Standard	Standard	Standard	Standard	Global Search & Replace
Character, width, line, paragraph, page	Character, width, line, paragraph, page	Standard	Standard	Block Move/Copy
Standard	Standard	Standard	Standard	Column Move/Delete
Standard	Standard	Standard	Standard	Auto Repagination
Standard	Standard	Standard	Standard	Auto Widow Adjust
None	None	Optional	None	Auto File Sort
Standard	Standard	Standard	Standard	Auto File Select
Manual	Manual	None	None	Auto Footnote Tie-in
None	None	None	None	Term Dictionary/Glossary
Optional	Optional	Optional, \$750	—	COMMUNICATIONS
Asynch. 110-1200 baud, Direct Connect to 9600 baud	Asynch. 110-1200 baud, Direct Connect to 9600 baud	Asynchronous ASCII; bi-synch. 2780-3780 at 50 to 9600 baud	—	Availability
Optional	Optional	—	None	Format & Speed
Standard	Standard	None	BASIC	ARITHMETIC CAPABILITY
None	None	None	BASIC	EDP CAPABILITY
Optional	Optional	Photocomp interface, shared printer, OCR paper feeder	Available	Multiprogramming
Photocomp interface, shared printer, OCR paper feeder	Photocomp interface, shared printer, OCR paper feeder	Cassette reader	Quadruple diskette, 10/20 Mb disk	Compilers
December 1979 USA	June 1980 USA	October 1976 USA	1978 USA	APPLICATIONS SOFTWARE
—	—	450 (8100 & 8200)	400	PERIPHERALS
\$9,750 w/o printer \$13,500 w/printer \$355 (1 yr) w/o printer	\$10,750 w/o printer \$14,500 w/printer \$390 (1 yr) w/o printer	\$11,500* (8100) \$12,500* (8200)	\$8,000 to \$20,000	BACKGROUND INFORMATION
\$475 (1 yr) w/o printer	\$390 (1 yr) w/o printer	\$330 (8100) \$350 (8200)	—	First Delivery Date
\$40 (w/o printer) \$70 (w/printer)	\$45 (w/o printer) \$75 (w/printer)	6% of purchase/yr (8100) 6% of purchase/yr (8200)	—	Country of Manufacture
—	—	90 days, ongoing support for all hardware and software	—	Installed Base Estimate
Execuscan proofreading aid, auto paragraph numbering, math package, forms mode, background printing, global directory, reader comfort control, high contrast filter	Execuscan proofreading aid, auto paragraph numbering, math package, background printing, background communications, forms mode, global directory, reader comfort control, high contrast filter	WORDPAL 8100 & 8200 employ different processors, different displays, 8200 has its own desk unit. Both models can be fully integrated w/ dp. *Workstation alone, \$8,995.	Extensive mail list/letter merges with selection criteria	Purchase
				Rental
				Lease
				Maintenance
				Warranty & Support
				REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	CPT	CPT	CPT	Datapoint
MODEL	Cassetype 4200 Series	6000	8000	1500
SYSTEM CONFIGURATION	Typewriter, cassette console, CRT*	Keyboard/CRT/diskette console, printer	Keyboard/CRT/diskette console, printer	Keyboard/CRT/diskettes
Configuration	Dual cassette	48K Single diskette	64K Dual diskette	64K Diskette
Memory Size	—	—	—	—
Storage Media	—	—	—	—
Storage Capacity	125 chars./cassette	315K chars./diskette	315K chars./diskette	1Mb
DISPLAY STATION FEATURES	5 ¹ / ₂ " x 7 ¹ / ₂ " CRT* 8K 14 lines x 96 chars. (1024 chars. total)	8 ¹ / ₂ " x 5 ¹ / ₂ " CRT 8K 19 lines x 80 chars. (1520 chars. total)	15" diagonal CRT 12K 54 lines x 80 chars. (4320 chars. total)	5 ¹ / ₂ " x 8" CRT 1920 characters 24 lines x 80 characters
Screen Size & Type	—	—	—	—
Display Buffer Memory	—	—	—	—
Format & Capacity	—	—	—	—
Character Generation	—	—	—	—
Cursor Positioning	Left, right, up, down	Left, right, up, down	Left, right, up, down	Dot Matrix
Vertical Scrolling	Standard	Standard	Standard	Standard
Horizontal Scrolling	Standard	None	Standard	Standard
Page Scrolling	Standard	Standard, frwd & rvrs	Standard	Standard
Display Highlighting	None	None	None	None
Character Size Control	None	None	None	None
Character Pitch Display	None	None	None	None
Character Spacing Display	None	None	Single, double & triple	Standard
Line Spacing Display	None	Standard	None	Standard
Line Justify Display	None	Standard	Standard	Code Only
Underscore Display	Standard	Standard	Standard	Code Only
Sub-Score Display	Code only	Standard	Standard	None
Multi-Column Page Display	None	Standard	Standard	None
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	None	Standard	Format display line	Standard
PRINTER STATIONS FEATURES	IBM Selectric 15 cps**	Daisy wheel, 45 cps* 256 chars. 11 ¹ / ₂ " x 12 ¹ / ₂ "	Daisy wheel 45 cps* 256 chars. 10 ¹ / ₂ " x 15 or proportional	Daisy, 45 cps 512 chars. min. 10 ¹ / ₂ " x 15
Printer Type & Speed	—	—	—	—
Printer Buffer Memory	—	—	—	—
Character Pitch/Spacing	10 ¹ / ₂ " 13 ¹ / ₂ " 15"	13 ¹ / ₂ " 15"	13 ¹ / ₂ " 15"	15" 13 ¹ / ₂ "
Writing Line Width	—	—	—	—
Carriage Paper Width	15.5"	Standard	Standard	Standard
First Line Forms Advance	Standard	Standard	Standard	Standard
End Of Page Advance	Standard	Standard	Standard	Standard
Justified Printout	None	Standard	Standard	Standard
Sub-Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bi-directional Printout	None	None	Standard	Standard
Simultaneous Printout	Optional w/display	Standard	Standard	Standard
GEN. FUNCTIONAL FEATURES	—	—	—	—
Media-Stored Format	None	Standard	Standard	Standard
Default Format Statement	None	Standard	Standard	Standard
Stored Multiple Formats	None	Standard	Limited	Standard
Machine Dialog/Menu Prompt	None	Standard	Limited	Standard
Forms Input	None	Standard	Standard	Standard
Control Character Printout	Standard	Standard	Standard	Standard
Printout Queuing	None	Standard	Standard**	Standard
Revision & Status Reporting	None	None	System mode & current line no displayed	Standard
System Security	Keylock on comm. module	Standard	Standard	Standard
TEXT INPUT FEATURES	—	—	—	—
Auto Carrier Return	Optional*	Standard	Standard	Standard
Auto Word Wraparound	Optional*	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	None	Standard	Standard	Standard
Auto Decimal Tab	None	Standard	Standard	Standard
Hyphenation	Manual 6-char. Hot Zone	Stored algorithm	Stored algorithm	Manual
REMARKS & OTHER FEATURES	*Visual Memory display optional \$2,795 **Qume daisy avail as CPT Rotary III 45 cps	*Or Diablo 35 cps **17 doc. print queue Variable file formats, page disk max 1000, or page oriented alphanumeric page labels, table of contents recalled alphabetically from diskette	*Or Diablo 35 cps, GE line printer, 240 cps, Twin line printers also available ***17 documents in print queue.	*Visual Memory display option introduced 1976 *Without printer, user is able to multiplex up to 4 consoles

Standalone Word Processing Systems

CPT	CPT	CPT	Datapoint	COMPANY
Cassetype 4200 Series	6000	8000	1500	MODEL
None	None	Standard	Standard	TEXT INPUT FEATURES (cont'd)
None	None	Standard	Standard	Auto Input Underline
None	None	Standard	Standard	Auto Centering
Optional w/display	Stored text assembled & merged w/keyboarded text	Stored text assembled & merged w/keyboarded text	Stored text assembled & merged w/keyboarded text	Auto Line Spacing
By reference codes	By document or page file name or number C, W, L, P, page, up and down	By page & line no. char string C, W, L, P, page, up and down	By document name & character string C, W, L, S, P	Auto Page Numbering
C, L	Standard, page or document	Standard, page or document	Standard	Auto Headers/Footers
None	Standard	Standard	Standard	Auto Pagination
None	Standard	Standard	Standard	Document Assembly/Merge
None	Standard	Standard	Standard	Search Capability
None	Standard	Standard	Standard	Delete Capability
None	None	Standard	Standard	Global Search & Replace
None	Standard	Standard	Standard	Block Move/Copy
None	Standard	Standard	Standard	Column Move/Delete
None	None	Standard	Standard	Auto Repagination
None	None	Standard	None	Auto Widow Adjust
None	Standard	Standard	Standard	Auto File Sort
None	Standard	Standard	Standard	Auto File Select
None	None	Standard	None	Auto Footnote Tie-In
None	None	Standard	None	Term Dictionary/Glossary
Optional	Standard	Optional	Optional	COMMUNICATIONS
Half or full-duplex ASCII at 50 to 9600 baud	Asynch ASCII TTY at 110 to 9600 baud	Asynch ASCII TTY at 110 to 9600 baud	Optional, TTY, 3270, synchronous batch emulators at 110 to 9600 bps	Availability
None	None	Optional	Standard	Format & Speed
None	None	None	Standard	EDP CAPABILITY
None	None	Available	BASIC, DATABUS, DATASHARE Available	Multiprogramming Compilers
None	Computer tape, photo-composition interface	Cassette reader for interface with 4200, OCR, multiple console interface, sheet feeder*	Printers, Communications	Applications Software
June 1972* USA 12,000	April 1979 USA —	September 1977 USA —	1977/1980 (hard/soft.) USA 5,000+ (hardware)	PERIPHERALS
\$6,295 (\$9,090 with display option) \$250	\$6,990* \$280	\$14,990 \$590	\$7,475 \$412	BACKGROUND INFORMATION
\$204 (5-yr.) \$450/yr	3rd party \$627/year	3rd party only \$890	\$269 (2-year) \$71	First Delivery Date Country of Manufacture Installed Base Estimate
90 days	90 days	90 days	30 days	PURCHASING & TERMS Purchase Rental Lease Maintenance Warranty & Support
*Visual Memory display option introduced 1976	*Without printer, user is able to multiplex up to 4 consoles	*Mag card reader, Wide Track Printer, Compuk Pak system supports c/m to combine wp and dp capabilities on 8000 system	REMARKS & OTHER FEATURES	

Standalone Word Processing Systems

COMPANY	Datapoint	Datapoint	Data Terminals & Communications	A.B. Dick
MODEL	1800	3800	MICROFILE	Magna I
SYSTEM CONFIGURATION Configuration	Keyboard/CRT/diskettes	Keyboard/CRT, File Processor	Keyboard/printer, diskette console	Typewriter, card console
Memory Size Storage Media	60K to 120K Diskette, ARC Disk	60K to 120K ARC Disk	8K to 64K total 2 or 4 diskettes	8K Magnetic card
Storage Capacity DISPLAY STATION FEATURES	4Mb	400Mb	300K char./diskette	5K chars./card
Screen Size & Type	5" x 8" CRT	5" x 8" CRT	Optional*	Not Available
Display Buffer Memory	1920 characters	1920 characters	Not Available	Not Available
Format & Capacity	24 lines x 80 characters	24 lines x 80 characters	Not Available	Not Available
Character Generation Cursor Positioning	Dot Matrix	Dot Matrix	Not Available	Not Available
Vertical Scrolling	Standard	Standard	Optional*	Not Available
Horizontal Scrolling	Standard	Standard	Not Available	Not Available
Page Scrolling	Standard	Standard	Optional*	Not Available
Display Highlighting	Standard	Standard	Optional*	Not Available
Character Size Control	Standard	Standard	Optional*	Not Available
Character Pitch Display	None	None	Optional*	Not Available
Line Spacing Display	None	None	Not Available	Not Available
Line Justify Display	Standard	Standard	Not Available	Not Available
Underscore Display	Standard	Standard	Not Available	Not Available
Sub-Superscript Display	Code only	Standard	Not Available	Not Available
Multi-Column Page Display	Code only	Code Only	Optional—codes only*	Not Available
Stored Form Recall/Display	None	None	Not Available	Not Available
Control Code Display	None	None	Optional*	Not Available
Format Statement/Display	Standard	Standard	Optional*	Not Available
PRINTER STATIONS FEATURES	Standard	Standard	Optional*	Not Available
Printer Type & Speed	Daisy, 45 cps	Daisy, 45 cps	Quine daisy 45 cps	—
Printer Buffer Memory	512 chars. min	512 chars. min	—	—
Character Pitch/Spacing	10.12/15	10.12/15	10.12	10.12
Writing Line Width	15"	15"	15"	15"
Carrage Paper Width	13.2"	13.2"	13.2"	13.2"
First Line Form Advance	15"	15"	15"	15"
End-Of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub-Superscript Printout	Standard	Standard	Standard w/program card	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GEN FUNCTIONAL FEATURES	None	None	None	None
Media-Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	None	None
Stored Multiple Formats	Standard	Standard	None	None
Machine Dialog/Menu Prompt	Standard	Standard	None	Display shows machine status
Forms Input	Standard	Standard	None	None
Control Character Printout	Standard	Standard	Standard	Standard w/program card
Printout Queuing	Standard	Standard	None	None
Revision & Status Reporting	Standard	Standard	None	None
System Security	Standard	Standard	None	None
TEXT INPUT FEATURES	Standard	Standard	None	Standard
Auto Carrier Return	Standard	Standard	None	Standard
Auto Word Wraparound	Standard	Standard	None	None
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	None	Standard
Auto Decimal Tab	Standard	Standard	None	None
Hyphenation	Manual	Manual	Manual, adjustable Hot Zone	Manual during system scan, adj. Hot Zone
REMARKS & OTHER FEATURES				"9" x 11" CRT (DTC 382)

Standalone Word Processing Systems

Datapoint	Datapoint	Data Terminals & Communications	A.B. Dick	COMPANY
1800	3800	MICROFILE	Magna I	MODEL
Standard	Standard	Standard	Standard	TEXT INPUT FEATURES (cont'd) Auto Input Underline Auto Centering
Standard	Standard	Optional	Standard, 10 settings	Auto Line Spacing Auto Page Numbering Auto Headers/Footers Auto Pagination
Standard	Standard	Optional	None	TEXT EDIT & MERGE FEATURES Document Assembly/Merge
Standard	Standard	Optional	None	Search Capability
Standard	Standard	Optional	By line no. (card) or char. string (memory) C. W. L. S. P. Page	Delete Capability
Standard	Standard	Standard	Next occurrence of max 60-char. string, manual replacement	Global Search & Replace
Standard	Standard	Access lines and imbed files	Standard	Block Move/Copy
None	None	Optional	None	Column Move/Delete
Standard	Standard	None	None	Auto Repagination
None	None	None	Manual	Auto Widow Adjust
Standard	Standard	Standard	None	Auto File Sort
Standard	Standard	2-level standard	None	Auto Footnote Tie-In Term Dictionary/Glossary
None	None	None	Manual	COMMUNICATIONS Availability Format & Speed
Optional, TTY, 3270, synchronous batch emulators at 110 to 9600 bps	Optional, TTY, 3270, synchronous batch emulators at 110 to 9600 baud	Standard	Optional \$1 500 CMC 2741-134 5 at 300 baud ASCII Async., 110, 150 or 300 bps	ARITHMETIC CAPABILITY EDP CAPABILITY Multiprogramming Compilers
Standard	Standard	Asynchronous ASCII at 110 to 9600 baud X-on, X-off Full	Optional arithmetic pkg	Applications Software
Standard	Standard	None	None	PERIPHERALS
1977/1980 (hard/soft) USA 3,500 (hardware)	1977/1980 (hard/soft) USA 2,000 (hardware)	December 1976 USA	March 1976 USA	BACKGROUND INFORMATION First Delivery Date Country of Manufacture Installed Base Estimate PRICING & TERMS Purchase
\$10,975	\$6,950	\$4,975 (dual diskette) \$7,395 (4 diskettes)	\$5,950	Rental
\$455	\$325	—	\$275 (2 yr) \$255 (3-yr)	Lease
\$340 (2 year)	\$230 (2-year)	\$193 (1-yr)	—	Maintenance
\$107	\$44	\$45/mo.	\$630/yr	Warranty & Support
30 days	30 days	90 day warranty	90 days, operator training, MSR support	REMARKS & OTHER FEATURES
		*BASIC interpreter and FORTRAN compiler require additional memory **Document Processor software \$275		

Standalone Word Processing Systems

COMPANY	A.B. Dick	Dictaphone/Artec	Dictaphone/Artec	Digital Equipment (DEC)
MODEL	Magna II	Display 2000	Dual Display	WS 78
SYSTEM CONFIGURATION				
Configuration	Typewriter, display, card console	Keyboard/display, diskette console	Keyboard/CRT, diskette console, printer	Keyboard/CRT/diskette mini-disk
Memory Size	8K	32K	96K	78K
Storage Media	Magnetic card	Single or dual diskette	Dual diskette	Dual diskette (1 or 2)
DISPLAY STATION FEATURES				
Storage Capacity	5K chars./card	256K chars./diskette	500,000 chars.*	250K chars./diskette
Screen Size & Type	1" x 5.5" LED	1" x 10" Gas plasma	15" diagonal CRT**	12" diagonal CRT
Display Buffer Memory	None	1 line x 32 chars.	7K	2K chars.
Format & Capacity	1 line x 32 chars. (32 chars. total)	1 line x 37 chars. (37 chars. total)	66 lines x 102 chars.	24 lines x 80 chars. (1920 chars. total)
Character Generation	5x7 dot matrix	Dot matrix	5x7 dot matrix	5x7 dot matrix
Cursor Positioning	Right	Space, backspace		Left, right along fixed line
Vertical Scrolling	None	None	Standard	Standard
Horizontal Scrolling	Standard	Standard	Standard	Standard
Page Scrolling	None	None	Standard	Standard
Display Highlighting	Flashing	Flashing	Standard	None
Character Size Control	None	None	Standard	None
Character Pitch Display	None	Standard	Standard	None
Character Spacing Display	None	Codes only	Standard	None
Line Spacing Display	None	Codes only	Standard	Standard
Line Justify Display	None	None	Standard	None
Underscore Display	Code only	Codes only (Eng abbrev.)	Standard	Code only
Sub-/Superscript Display	Code only	Codes only (Eng abbrev.)	Standard	Code only
Multi-Column Page Display	None	None	Standard	Manual
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER STATIONS FEATURES				
Printer Type & Speed	Qume daisy 45 cps	Daisy wheel 40 cps	Metal daisy wheel, 40 cps	Daisy wheel 45 cps*
Printer Buffer Memory	None	6K chars.	2K chars.	—
Character Pitch/Spacing	10-.12"	10/12/proportional	Variable	13.2"
Writing Line Width	13.2"	10/12/proportional	13.2"	15"
Carnage Paper Width	15"	13"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-Of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard w/program card	Std. intercharacter sp.	Std. intercharacter sp.	Std. intercharacter sp.
Sub-/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bi-directional Printout	None	Standard	Standard	Standard
Simultaneous Printout	None	Standard	Standard	Standard
GEN. FUNCTIONAL FEATURES				
Media-Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	None	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog/Menu Prompt	Standard w/program card	Display shows machine status	Prompting cues & error messages	Operator cues & error messages
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	Standard	Standard	Standard	Displays all operator options
Printout Queuing	None	Standard	Standard	Standard
Revision & Status Reporting	None	None	Standard	Index shows date & time of last doc. access**
System Security	None	Document protect code	Standard	None
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	\$7,800
Auto Word Wraparound	None	Standard	Standard	\$315 (2-yr.)
Auto Margin Adjust	Standard	Standard	Standard	\$295 (3-yr.)
Temporary Margins	Standard	Standard	Standard	\$693/yr
Auto Decimal Tab	Standard	Standard	Standard	90 days, operator training, MSR support
Hyphenation	Manual during system scan; adj. Hot Zone	Scan before print, adjustable Hot Zone	System scan before print-out	Artec service
REMARKS & OTHER FEATURES			*Double sided, dual density diskettes available as option. **And 37-char. thin window display on keyboard module.	*Draft printers, 180 cps & 34 lpm, also avail. **Index also shows total time spent on document.

Standalone Word Processing Systems

A.B. Dick	Dictaphone/Artec	Dictaphone/Artec	Digital Equipment (DEC)	COMPANY
Magna II	Display 2000	Dual Display	WS-78	MODEL
Standard	Standard	Standard	Standard	TEXT INPUT FEATURES (cont'd)
Between margins or about any point	Standard	Standard	Standard	Auto Input Underline
Standard, 10 settings	Standard	Standard	Standard	Auto Centering
None	Standard	Standard	Standard	Auto Line Spacing
None	Standard	Standard	Standard	Auto Page Numbering
None	Standard	Standard	Standard	Auto Headers/Footers
None	Standard	Standard	Standard	Auto Pagination
Recorded text merged w/keyboarded text	Standard	Standard	Standard	TEXT EDIT & MERGE FEATURES
By line number	C. W. L. Para., character string	C. W. L. P. char. string	By doc. char. string & cursor	Document Assembly/Merge
C. W. L. S. P. Page	C. W. L. Para., char. string	C. W. L. S. & document	C. W. L. S & document	Search Capability
Non-global search for 60 char. max string; manual or auto replacement	Next or all occurrences; manual or auto replacement; max 256-char. string	Next or all occurrences, manual or automatic replace or delete	Standard; automatic via user-defined keys	Delete Capability
Standard	Standard*	Standard	Standard	Global Search & Replace
None	None	Standard	Via user-defined function key	Block Move/Copy
None	Standard	Standard	Standard	Column Move/Delete
None	Manual	Standard	Manual	Auto Repagination
None	Standard (Mod. 4, 5)	Optional	Optional	Auto Widow Adjust
None	Standard; up to 256 fields	Optional	Multiple level standard through list processing	Auto File Sort
None	None	Standard	Manual	Auto Footnote Tie-In
Up to 99 items stored in memory	None	Standard	Standard	Term Dictionary/Glossary
Optional \$1,500 ASCII Async., 110, 150 or 300 bps	Optional, \$2,500 Half- or full-duplex, synch. 50 to 9600 baud	Optional, \$2,500 Half- or full-duplex, synch. 50-4800 baud	Optional, \$1,050 Asynchronous full duplex ASCII	COMMUNICATIONS Availability
None	Standard (Mod. 3, 5)	Optional	Optional COS 310 or OS78	FORMAT & SPEED
—	None BASIC, CP/M opt.	Optional	None BASIC, DIBOL, FORTRAN	ARITHMETIC CAPABILITY
—	None	All standard	Accounting & others avail. OCR*, line printers, photocomposition	Multiprogramming Compilers
None	To be announced	Paper tape reader, telex punch, IBM mag card reader	Dot matrix printer, sheet feeder	APPLICATIONS SOFTWARE
March 1978 USA	February 1977 USA	February 1980 USA	October 1977 USA	PERIPHERALS
\$7,800	\$9,450 (Model 1) \$9,950 (Model 2)** \$320 (1-yr.) Mod. 2	\$15,950*	\$11,995	BACKGROUND INFORMATION
\$315 (2-yr.)	Not available	3rd party	Rental	First Delivery Date
\$295 (3-yr.)	3rd party	3rd party	Lease	Country of Manufacture
\$693/yr	\$90/mo.	—	Maintenance	Installed Base Estimate
90 days, operator training, MSR support	Artec service	90 days, operator training	Warranty & Support	PRICING & TERMS Purchase
*Document assembly with program card.	*Model 2 only 2nd diskette drive \$1,500 either model **\$10,950 (Mod. 3); \$10,950 (Mod. 4), \$11,950 (Mod. 5)	*May also be configured as a shared-resource system with up to four diskettes and additional keyboard/CRT workstations.	Hendrix & Context supported. Can switch from standalone to terminal for shared logic configuration.	REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	Digital Equipment (DEC)	IBM / OPD	IBM / OPD	IBM / OPD
MODEL	WS 81	Displaywriter System	MT-ST II	MT-ST IV
SYSTEM CONFIGURATION	Keyboard, CRT, diskette console	Display station, CRT, keyboard electronics module, single dual diskette printer (opt.)	Typewriter, tape console	Typewriter, tape console
Memory Size	32K words	—	—	—
Storage Media	Dual diskette	160K to 192K IBM diskette 1 (single or dual)	Tape cartridge	Dual tape cartridge
DISPLAY STATION FEATURES	256K (text), 125K (system)	284K chars / control	23K chars / cartridge	23K chars / cartridge
Screen Size & Type	12" diagonal CRT	12" diagonal CRT	Not Available	Not Available
Display Buffer Memory	7500 characters	—	Not Available	Not Available
Format & Capacity	24 lines x 80 chars	25 lines x 80 chars (2000 chars total)	Not Available	Not Available
Character Generation	7 x 9 dot matrix	8 x 16 dot matrix	Not Available	Not Available
Cursor Positioning	Left, right, along fixed line	Directional, left, right, up, down, home	Not Available	Not Available
Vertical Scrolling	Standard	Standard	Not Available	Not Available
Horizontal Scrolling	Standard	Standard	Not Available	Not Available
Page Scrolling	Standard	Standard	Not Available	Not Available
Display Highlighting	None	Blinking, reverse video	Not Available	Not Available
Character Size Control	None	—	Not Available	Not Available
Character Pitch Display	None	Fixed	Not Available	Not Available
Character Spacing Display	None	Fixed	Not Available	Not Available
Line Spacing Display	Standard	Single shown all settings	Not Available	Not Available
Line Justify Display	None	Hinged right only	Not Available	Not Available
Underscore Display	Codes only	Standard	Not Available	Not Available
Sub-Subscript Display	Codes only	Standard, one level	Not Available	Not Available
Multi-Column Page Display	Manual	—	Not Available	Not Available
Stored Form Recall Display	Standard	Text Pack II*	Not Available	Not Available
Control Code Display	Standard	Standard	Not Available	Not Available
Format Statement Display	Standard	Standard	Not Available	Not Available
PRINTER STATIONS FEATURES	Daisy wheel, 45 cps	15.5 cps**, 40, 60 cps***	IBM Selectric 15.5 cps	IBM Selectric 15.5 cps
Printer Type & Speed	Variable & proportional	10, 12 Electric, 12.5***, 13.2***	10, 12	10, 12
Printer Buffer Memory	13.2"	13.2***, 13.2***	13"	13"
Writing Line Width	15"	15***, 15 4****	15 5"	15 5"
Carrage Paper Width	Standard	Standard	None	None
First Line Forms Advance	Standard	Standard	None	None
End-Of-Page Stop	Standard	Standard	None	None
Justified Printout	Standard	Standard	None	None
Sub-Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	None	None
Bidirectional Printout	Standard	Standard	None	None
Simultaneous Printout	Standard	Standard	None	None
GEN FUNCTIONAL FEATURES	Standard	Standard	None	None
Media Stored Format	Standard	Standard	None	None
Default Format Statement	Standard	Standard	None	None
Stored Multiple Formats	Standard	Displays all open options	Standard	None
Machine Dialog / Menu Prompt	Standard	Standard	None	None
Forms Input	Standard	—	None	None
Control Character Printout	None	None	None	None
Printout Queueing	Standard, 8 docs. per term	Standard	None	None
Revision & Status Reporting	max in queue	—	None	None
System Security	Via index entries	—	None	None
TEXT INPUT FEATURES	None	Keylock, password for comm. encryption	None	None
Auto Carriage Return	Standard	Standard	None	None
Auto Word Wraparound	Standard	Standard	None	Standard
Auto Margin Adjust	Standard	Standard, left only	None	None
Temporary Margins	Standard	Standard	None	None
Auto Decimal Tab	Standard	Prompted with adjustable Hot Zone	None	Manual, 12-char Hot Zone
Hyphenation	Manual, discretionary hyphens	—	Manual, 12-char Hot Zone	Manual, 12-char Hot Zone
REMARKS & OTHER FEATURES	*Operator selectable **Selectric printer ***IBM printwheel printer 10, 12 proportional Spelling verification aid of 50,000 words - customer defined 500 wd suppl	—	—	—

Standalone Word Processing Systems

Digital Equipment (DEC)	IBM / OPD	IBM / OPD	IBM / OPD	COMPANY
WS 81	Displaywriter System	MT-ST-II	MT-ST-IV	MODEL
Standard	Standard	None	None	TEXT INPUT FEATURES (cont'd)
Centers between margins or about any point	Standard	None	None	Auto Underline
Standard	Standard	None	None	Auto Centering
Standard	Standard	None	None	Auto Line Spacing
Standard	Standard	None	None	Auto Page Numbering
Standard	Standard	None	None	Auto Headers/Footers
Standard	Standard	None	None	Auto Pagination
Standard	Standard	Stored text assembled & merged w/ keyboarded text	Stored text merged w/ keyboarded text	TEXT EDIT & MERGE FEATURES
Standard	Standard	By document, cursor, character string C. W. L. S. Para., Page, Document	By skipping, C. W. L. P.	Document Assembly/Merge
Standard	Standard	C. W. L. P.	C. W. L. P.	Search Capability
Standard	Standard	—	None	Delete Capability
Standard	Standard	—	None	Global Search & Replace
Standard	Standard	—	None	Block Move/Copy
Standard	Standard	—	None	Column Move/Delete
Standard	Standard	—	None	Auto Repagination
Standard	Standard	—	None	Auto Widow Adjust
Standard	Standard	—	None	Auto File Sort
Standard	Standard	—	None	Auto File Select
Standard	Standard	—	None	Auto Footnote Tie-In
Standard	Standard	—	None	Term Dictionary/Glossary
Standard	Standard	—	None	COMMUNICATIONS
Optional	Full duplex, asynchronous 300 to 9600 baud	Available 9/81* Asynch 2741 at 134.5, 300, 1200 baud, teletype 110, 150, 200, 300**	—	Availability
Opt. w/ COS-310	—	—	—	Format & Speed
Optional	DIBOL, FORTRAN, BASIC, Assembler	—	—	ARITHMETIC CAPABILITY
User-generated w/ COS-310	—	—	—	EDP CAPABILITY
OCR, draft printer, photocomp, RS-232 devices	IBM mag card reader/recorder optional, printer sharing (up to 3)*	—	—	Multiprogramming
October 1976 USA	January 1981 USA	October 1964 USA	—	Compilers
\$21,606	\$7,895*** \$8,995*** \$10,375**** \$335*** \$360**** \$415*****	—	—	Applications Software
3rd party	\$275*** \$295*** (3-yr) \$340 (3-yr)**** \$82*** \$80**** \$89****	—	—	PERIPHERALS
3rd party	90 days parts & labor 3 days N.C operator training	90 day, 800 # for central problem determination by system support center	—	BACKGROUND INFORMATION
Manufacturer	—	—	—	First Delivery Date
Product discontinued, chart listing for reference purposes	—	—	—	Country of Manufacture
Product discontinued, chart listing for reference purposes	—	—	—	Installed Base Estimate
Product discontinued, chart listing for reference purposes	—	—	—	PRICING & TERMS
Product discontinued, chart listing for reference purposes	—	—	—	Purchase
Product discontinued, chart listing for reference purposes	—	—	Rental	REMARKS & OTHER FEATURES
Product discontinued, chart listing for reference purposes	—	—	Lease	Maintenance
Product discontinued, chart listing for reference purposes	—	—	Warranty & Support	Warranty & Support
Text Pack II **1200 baud, bisynch 2770/3780 2780 at 2400 baud ***15.5 cps printer, 1 dsk ****40 cps / 1 dsk *****60 cps / 2 dsk Software monthly license only	—	—	—	—

Standalone Word Processing Systems

COMPANY	IBM/OPD	IBM/OPD	IBM/OPD	IBM/OPD
MODEL	MC/ST	MC/ST-II	MC/ET	MC/A
SYSTEM CONFIGURATION	Card console, typewriter	Card console, typewriter	Card console, typewriter	Card console, typewriter
Memory Size				
Storage Media	Magnetic card	8K Magnetic card	Magnetic card	6K Magnetic card
Storage Capacity	50 lines/card	50 lines/card	50 lines/card	50 lines/card
DISPLAY STATION FEATURES				
Screen Size & Type	Not Available	Not Available	Not Available	Not Available
Display Buffer Memory	Not Available	Not Available	Not Available	Not Available
Format & Capacity	Not Available	Not Available	Not Available	Not Available
Character Generation	Not Available	Not Available	Not Available	Not Available
Cursor Positioning	Not Available	Not Available	Not Available	Not Available
Vertical Scrolling	Not Available	Not Available	Not Available	Not Available
Horizontal Scrolling	Not Available	Not Available	Not Available	Not Available
Page Scrolling	Not Available	Not Available	Not Available	Not Available
Display Highlighting	Not Available	Not Available	Not Available	Not Available
Character Size Control	Not Available	Not Available	Not Available	Not Available
Character Pitch Display	Not Available	Not Available	Not Available	Not Available
Character Spacing Display	Not Available	Not Available	Not Available	Not Available
Line Spacing Display	Not Available	Not Available	Not Available	Not Available
Line Justify Display	Not Available	Not Available	Not Available	Not Available
Underscore Display	Not Available	Not Available	Not Available	Not Available
Sub-Superscript Display	Not Available	Not Available	Not Available	Not Available
Multi-Column Page Display	Not Available	Not Available	Not Available	Not Available
Stored Form Recall/Display	Not Available	Not Available	Not Available	Not Available
Control Code Display	Not Available	Not Available	Not Available	Not Available
Format Statement Display	Not Available	Not Available	Not Available	Not Available
PRINTER STATIONS FEATURES				
Printer Type & Speed	IBM Selectric 15 5 cps	IBM Selectric 15 5 cps	IBM Executive 15 5 cps	IBM Selectric 15 5 cps
Printer Buffer Memory	None	None	None	None
Character Pitch / Spacing	10/12	10/12	Proportional	10/12
Writing Line Width	13"	12.5"	13"	12.5"
Carrage Paper Width	15.5"	15"	15.5"	15"
First Line Forms Advance	None	Standard	Standard	Standard
End-Of-Page Stop	None	None	None	Optional
Justified Printout	Optional	Optional	Optional	Standard
Sub-Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjustable Printout	None	None	None	None
Bidirectional Printout	None	None	None	None
Simultaneous Printout	None	None	None	None
GEN FUNCTIONAL FEATURES				
Media-Stored Format	Optional*	None	Optional*	None
Default Format Statement	None	None	None	None
Stored Multiple Formats	None	None	None	None
Machine Dialog/Menu Prompt	None	None	None	None
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	None	None	None	None
Printout Queuing	None	None	None	None
Revision & Status Reporting	None	None	None	None
System Security	None	Optional communications lock	—	None
TEXT INPUT FEATURES				
Auto Carrier Return	None	None	None	None
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	None	Standard	Standard	Standard
Hyphenation	Manual, 6-char. Hot Zone	Manual or ghost hyphens, 6-char. Hot Zone	Manual or ghost hyphens, 6-char. Hot Zone	Manual or ghost hyphens, 6-char. Hot Zone
REMARKS & OTHER FEATURES		*Requires Format option, \$400		*Requires Format option, \$400

Standalone Word Processing Systems

COMPANY	IBM/OPD	IBM/OPD	IBM/OPD	IBM/OPD	MODEL
MC/ST	MC/ST-II	MC/ET	MC/A		TEXT INPUT FEATURES (cont'd)
None	Standard	Standard	Standard		Auto Input Underline
None	Standard	Standard	Standard		Auto Centering
None	None	None	None		Auto Line Spacing
None	None	None	None		Auto Page Numbering
None	None	None	None		Auto Headers/Footers
None	Standard	Standard	Standard		Auto Pagination
Stored text merged with keyboard text	Stored text merged w/keyboarded text	Stored text merged w/keyboarded text	Stored text merged w/keyboarded text		TEXT EDIT & MERGE FEATURES
By skipping C. W. L. P		Document Assembly/Merge			
C. W. L	C. W. L	C. W. L	C. W. L		Search Capability
None	None	None	None		Delete Capability
None	None	None	None		Global Search & Replace
None	None	None	None		Block Move/Copy
None	None	None	None		Column Move/Delete
None	Standard	Standard	Standard		Auto Repagination
None	Standard, operator controlled scan	Standard, operator controlled scan	Standard, operator controlled scan		Auto Widow Adjust
None	None	None	None		Auto File Sort
None	None	None	None		Auto File Select
None	None	None	None		Auto Footnotes Tie In
None	None	None	None		Term Dictionary/Glossary
Optional*	Optional	Optional	Optional		COMMUNICATIONS
IBM 2741-compatible, 14.8 cps	IBM 2741-compatible, 14.8 cps	IBM 2770-compatible, to 2400 bps	—		Availability
None	None	None	None		Format & Speed
None	None	None	None		ARITHMETIC CAPABILITY
None	None	None	None		EDP CAPABILITY
None	None	None	None		Multiprogramming
None	None	None	None		Compilers
IBM OS/6 & 6640 printer		APPLICATIONS SOFTWARE			
October 1969	April 1973	April 1972	September 1975		PERIPHERALS
USA	USA	USA	USA		BACKGROUND INFORMATION
—	35,000	9,000	7,000		Firmware Date
\$4,320	\$7,580	\$4,710	\$6,370		Country of Manufacture
\$219**	\$342*	\$262*	\$289*		Installed Base Estimate
\$193 (2-yr)	\$301 (2-yr)	\$231 (2-yr)	\$254 (2-yr)		PRICING & TERMS
\$552/yr	\$612/yr	\$612/yr	\$567/yr		Purchase
90 day warranty, N/C operator training, MSR support	90 day warranty, N/C operator training, MSR support	90 day warranty, N/C operator training, MSR support	90 day warranty, N/C operator training, MSR support		Rental
*CMC/ST (w/communications) \$6,080	*Includes maintenance	*Includes maintenance	*Includes maintenance		Lease
**Includes maintenance					Maintenance
					Warranty & Support
					REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	IBM/OPD	IBM/OPD	IBM/GSD	Interactive Computer*
MODEL	OS 6/440 & 6/442	OS 6/450 & 6/452	WP/32	System 900
SYSTEM CONFIGURATION				
Configuration	Keyboard/CRT/diskette console, printer	Keyboard/CRT/media console, printer	Keyboard/CRT/media console, printer	Keyboard/CRT/diskette console, printer
Memory Size	8K	8K	16K to 32K	48K, 56K or 64K
Storage Media	Diskette	Magnetic card & diskette	Card/diskette/disk	Dual diskette
Storage Capacity	274K chars / diskette	250K disk / 5K card	5K / 250K / 13.7M chars	516K chars / diskette
DISPLAY STATION FEATURES				
Screen Size & Type	9" x 6" CRT	9" x 6" CRT	7" diagonal CRT	12" diagonal CRT
Display Buffer Memory	1024 chars	1024 chars	2K char	2K char
Format & Capacity	6 lines x 83 chars (498 chars total)	6 lines x 83 chars (498 chars total)	21 lines x 96 chars (2016 chars total)	7 x 9 dot matrix
Character Generation	—	Left, right along fixed line	Left, right	Left, right, up, down, home
Cursor Positioning	Left, right along fixed line	Standard	Standard	Standard
Vertical Scrolling	Standard	3, 68-char segments	None	None
Horizontal Scrolling	Standard	3, 68-char segments	None	Standard
Page Scrolling	None	None	None	Standard
Display Highlighting	Flashing & Brightened Ch	Flashing & Brightened Ch	None	Standard
Character Size Control	None	None	None	None
Character Pitch Display	Standard	Standard	None	None
Character Spacing Display	Standard	Standard	None	Standard
Line Spacing Display	Double space only	Double space only	None	Standard
Line Justify Display	Standard	Standard	None	Standard
Underscore Display	Standard	Standard	None	Standard
Sub-Superscript Display	Code only	Code only	None	Standard
Multi-Column Page Display	None	None	None	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Limited	Limited	None	Standard
Format Statement Display	Standard	Standard	Line printer 50/100 lpm	Diablo daisy 45 cps**
PRINTER STATIONS FEATURES				
Printer Type & Speed	IBM ink jet 92 cps*	IBM ink jet 92 cps*	To 12	—
Printer Buffer Memory	7455 chars	7455 chars	13"	—
Character Pitch/Spacing	10/12 proportional	10/12 proportional	15"	—
Writing Line Width	14***	14***	15"	—
Carrage Paper Width	14***	14***	Standard	Standard
First Line Forms Advance	Standard	Standard	Standard	Standard
End Of Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub-Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjunct Printout	Standard	Standard	None**	None
Bidirectional Printout	Standard****	Standard****	None	None
Simultaneous Printout	Standard	Standard	Standard	Standard
GEN FUNCTIONAL FEATURES				
Media Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	None	Standard
Machine Dialog / Menu Prompt	Standard	Standard	Standard	Standard
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	Standard	Standard	Standard	Standard
Printout Queuing	None	Up to 4 jobs	None	Standard
Revision & Status Reporting	None	None	Edit change list shows document revisions	Optional
System Security	Keylock & password for communications	Keylock & password for communications	—	—
TEXT INPUT FEATURES				
Auto Carrier Return	None	None	None	Standard
Auto Word Wraparound	None	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Left only	Left only
Temporary Margins	Left only	Left only	Left only	Standard
Auto Decimal Tab	Standard	Standard	None	Standard
Hyphenation	Manual, adjustable (3 to 12 char) Hot Zone	Manual, adjustable (3 to 12 char) Hot Zone	Manual, discretionary hyphens	Manual, discretionary hyphens
REMARKS & OTHER FEATURES	*OS 6/442 has 55-cps Qume printer **On Qume printer ***13 1/2" for 6/442 ****15" for 6/442 *****On Qume printer	*OS 6/452 has 55-cps Qume printer **On Qume printer ***13 1/2" for 6/452 ****15" for 6/452 *****On Qume printer	Word processing configuration of IBM System/32 minicomputer	*Marketed in the USA exclusively by Inter Comp Sys., mfrg by MCM **180 cps dot matrix printer & 300 lpm line printers also avail. These printers have bidirectional printout

Standalone Word Processing Systems

IBM/OPD	IBM/OPD	IBM/GSD	Interactive Computer	COMPANY
OS 6/440 & 6/442	OS 6/450 & 6/452	WP/32	System 900	MODEL
Standard	Standard	Standard	Standard	TEXT INPUT FEATURES (cont'd)
About any point	About any point	Standard	Standard	Auto Input Underline Auto Centering
Standard	Standard	Standard	Standard	Auto Line Spacing Auto Page Numbering Auto Headers/Footers
Standard	Standard	Standard	Standard	Auto Pagination
Standard	Standard	Standard	Standard	TEXT EDIT & MERGE FEATURES
Standard	Standard	Standard	Standard	Document Assembly/Merge
Standard	Standard	Standard	Standard	Search Capability
Standard	Standard	Standard	Standard	Delete Capability
Standard	Standard	Standard	Standard	Global Search & Replace
Standard	Standard	Standard	Standard	Block Move/Copy
Standard	Standard	Standard	Standard	Column Move/Delete
Standard	Standard	Standard	Standard	Auto Repagination
Standard	Standard	Standard	Standard	Auto Widow Adjust
Standard	Standard	Standard	Standard	Auto File Sort
Standard	Standard	Standard	Standard	Auto File Select
Standard	Standard	Standard	Standard	Auto Footnote Tie-In Term Dictionary/Glossary
Standard	Standard	Standard	Standard	COMMUNICATIONS
Standard	Standard	Standard	Standard	Availability Format & Speed
Standard	Standard	Standard	Standard	ARITHMETIC CAPABILITY
Standard	Standard	Standard	Standard	EDP CAPABILITY
Standard	Standard	Standard	Standard	Multiprogramming
Standard	Standard	Standard	Standard	Compilers
Standard	Standard	Standard	Standard	APPLICATIONS SOFTWARE
Standard	Standard	Standard	Standard	PERIPHERALS
Standard	Standard	Standard	Standard	BACKGROUND INFORMATION
Standard	Standard	Standard	Standard	First Delivery Date Country of Manufacture Installed Base Estimate PRICING & TERMS Purchase
Standard	Standard	Standard	Standard	Rental
Standard	Standard	Standard	Standard	Lease
Standard	Standard	Standard	Standard	Maintenance
Standard	Standard	Standard	Standard	Warranty & Support
Standard	Standard	Standard	Standard	REMARKS & OTHER FEATURES
\$19,200	\$21,670 (6/450)	\$38,380*	—	*Unattended assy of doc's from all stored or stored plus original text via optional Processing Feature
\$12,900 (6/442)	\$15,370 (6/452)	\$875**	—	**Unattended assy of doc's from all stored or stored plus original text via optional Processing Feature
\$856	\$974	—	—	***Basic system w/ 50 lpm line printer & 3.2 Mb disk storage
\$615	\$733	—	—	**Also mark sense reader
\$753 (2-yr), \$719 (3-yr)	\$857 (2-yr), \$818 (3-yr)	—	—	***Rental prices include maintenance
\$541 (2-yr), \$517 (3-yr)	\$645 (2-yr), \$616 (3-yr)	—	—	***July 1978 for 6/452
\$2160 yr	\$2,304 yr	—	—	***July 1978 for 6/442
\$1548 yr	\$1,680 yr	—	—	—
90 days	N/C operator training, MSR support	90 days parts & labor, 1 day training	—	—

Standalone Word Processing Systems

COMPANY	IBM/OPD	IBM/OPD	IBM/OPD	IBM/OPD
MODEL	6240	Memory Typewriter 50/100	OS 6/420	OS 6/430
SYSTEM CONFIGURATION	Typewriter, card console	Typewriter	Keyboard/CRT/media console	Keyboard/CRT/media console
Memory Size	8K	4K	8K	8K
Storage Media	Magnetic card	Internal memory belt	Diskette	Magnetic card & diskette
Storage Capacity	5K chars./card	200K, 400K chars.	274K chars./diskette	274K disk/5K card
DISPLAY STATION FEATURES				
Screen Size & Type	Not Available	Not Available	9" x 6" CRT	9" x 6" CRT
Display Buffer Memory	Not Available	Not Available	1024 characters	1024 characters
Format & Capacity	Not Available	Not Available	6 lines x 83 characters (498 chars total)	6 lines x 83 characters (498 chars total)
Character Generation	Not Available	Not Available	—	—
Cursor Positioning	Not Available	Not Available	Left, right, along fixed line	Left, right, along fixed line
Vertical Scrolling	Not Available	Not Available	Standard	Standard
Horizontal Scrolling	Not Available	Not Available	3, 68-character segments	3, 68-character segments
Page Scrolling	Not Available	Not Available	None	None
Display Highlighting	Not Available	Not Available	Flashing & Brightened Ch	Flashing & Brightened Ch
Character Size Control	Not Available	Not Available	None	None
Character Pitch Display	Not Available	Not Available	Standard	Standard
Character Spacing Display	Not Available	Not Available	Standard	Double space only
Line Spacing Display	Not Available	Not Available	Standard	Standard
Line Justify Display	Not Available	Not Available	Standard	Standard
Underscore Display	Not Available	Not Available	Codes only	Codes only
Sub-/Superscript Display	Not Available	Not Available	None	None
Multi-Column Page Display	Not Available	Not Available	Standard	Standard
Stored Form Recall/Display	Not Available	Not Available	Limited	Limited
Control Code Display	Not Available	Not Available	Standard	Standard
Format Statement Display	Not Available	Not Available	Standard	Standard
PRINTER STATIONS FEATURES				
Printer Type & Speed	Qume daisy 55 cps	IBM Selectric 15 5 cps	Not Available	Not Available
Printer Buffer Memory	—	None	Not Available	Not Available
Character Pitch/Spacing	10/12	10/12	Not Available	Not Available
Writing Line Width	13.2"	12.5"	Not Available	Not Available
Carriage Paper Width	15"	15"	Not Available	Not Available
First Line Forms Advance	None	None	Not Available	Not Available
End-Of-Page Stop	Standard	Standard	Not Available	Not Available
Justified Printout	None	None	Not Available	Not Available
Sub-/Superscript Printout	None	None	Not Available	Not Available
Non-Adjust Printout	Standard	None	Not Available	Not Available
Bidirectional Printout	None	None	Not Available	Not Available
Simultaneous Printout	None	None	Not Available	Not Available
GEN. FUNCTIONAL FEATURES				
Media-Stored Format	Standard	None	Standard	Standard
Default Format Statement	Standard	None	Standard	Standard
Stored Multiple Formats	None	None	"Frames" display operator options	"Frames" display operator options
Machine Dialog/Menu Prompt	None	None	Standard	Standard
Forms Input	None	None	Standard	Standard
Control Character Printout	None	None	None	None
Printout Queuing	None	None	None	None
Revision & Status Reporting	None	None	None	None
System Security	Optional communications lock	Keylock option, \$35	Keylock & password for communications	Keylock & password for communications
TEXT INPUT FEATURES				
Auto Carrier Return	None	None	None	None
Auto Word Wraparound	None	None	None	None
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	None	None	Left only	Left only
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	Manual, 6-char. Hot Zone	Manual or ghost hyphens, 6-char. Hot Zone	Manual, adjustable (3 to 12 character) Hot Zone	Manual, adjustable (3 to 12 character) Hot Zone
REMARKS & OTHER FEATURES				

Standalone Word Processing Systems

COMPANY	IBM/OPD	IBM/OPD	IBM/OPD	IBM/OPD	MODEL
	6240	Memory Typewriter 50/100	OS 6/420	OS 6/430	TEXT INPUT FEATURES (cont'd)
SYSTEM CONFIGURATION	Typewriter, card console	Typewriter	Keyboard/CRT/media console	Standard About any point	Auto Input Underline Auto Centering
Configuration	Standard	Standard	Standard	Standard About any point	Auto Line Spacing Auto Page Numbering Auto Headers/Footers Auto Pagination
Memory Size	8K	4K	8K	Standard	TEXT EDIT & MERGE FEATURES
Storage Media	Magnetic card	Internal memory belt	Diskette	Standard	Document Assembly/Merge
Storage Capacity	5K chars./card	200K, 400K chars.	274K chars./diskette	Standard	
DISPLAY STATION FEATURES					
Screen Size & Type	Not Available	Not Available	9" x 6" CRT	Stored text assembled & merged w/keyboarded text to form new document*	Search Capability
Display Buffer Memory	Not Available	Not Available	1024 characters	By skipping C. W. L. P	Delete Capability
Format & Capacity	Not Available	Not Available	6 lines x 83 characters (498 chars total)	By skipping C. W. L. P	Global Search & Replace
Character Generation	Not Available	Not Available	—	Backspace correction by C. W. L. P	
Cursor Positioning	Not Available	Not Available	Left, right, along fixed line	Standard	Block Move/Copy
Vertical Scrolling	Not Available	Not Available	Standard	Standard	Column Move/Delete
Horizontal Scrolling	Not Available	Not Available	3, 68-character segments	Standard	Auto Repagination
Page Scrolling	Not Available	Not Available	None	Standard	Auto Widow Adjust
Display Highlighting	Not Available	Not Available	Flashing & Brightened Ch	Standard	Auto File Sort
Character Size Control	Not Available	Not Available	None	Standard	Auto File Select
Character Pitch Display	Not Available	Not Available	Standard	Standard	Auto Footnotes Tie-In/Term Dictionary/Glossary
Character Spacing Display	Not Available	Not Available	Standard	Standard	COMMUNICATIONS Availability
Line Spacing Display	Not Available	Not Available	Double space only	Standard	Format & Speed
Line Justify Display	Not Available	Not Available	Standard	Standard	ARITHMETIC CAPABILITY
Underscore Display	Not Available	Not Available	Standard	Standard	EDP CAPABILITY
Sub-/Superscript Display	Not Available	Not Available	Codes only	Standard	Multiprogramming
Multi-Column Page Display	Not Available	Not Available	None	Standard	Compilers
Stored Form Recall/Display	Not Available	Not Available	Standard	Standard	APPLICATIONS Software
Control Code Display	Not Available	Not Available	Limited	Standard	PERIPHERALS
Format Statement Display	Not Available	Not Available	Standard	Standard	BACKGROUND INFORMATION
PRINTER STATIONS FEATURES					
Printer Type & Speed	Qume daisy 55 cps	IBM Selectric 15 5 cps	Not Available	Not Available	
Printer Buffer Memory	—	None	Not Available	Not Available	
Character Pitch/Spacing	10/12	10/12	Not Available	Not Available	
Writing Line Width	13.2"	12.5"	Not Available	Not Available	
Carriage Paper Width	15"	15"	Not Available	Not Available	
First Line Forms Advance	None	None	Not Available	Not Available	
End-Of-Page Stop	Standard	Standard	Not Available	Not Available	
Justified Printout	None	None	Not Available	Not Available	
Sub-/Superscript Printout	None	None	Not Available	Not Available	
Non-Adjust Printout	Standard	None	Not Available	Not Available	
Bidirectional Printout	None	None	Not Available	Not Available	
Simultaneous Printout	None	None	Not Available	Not Available	
GEN. FUNCTIONAL FEATURES					
Media-Stored Format	Standard	None	Standard	Standard	
Default Format Statement	Standard	None	Standard	Standard	
Stored Multiple Formats	None	None	"Frames" display operator options	"Frames" display operator options	
Machine Dialog/Menu Prompt	None	None	Standard	Standard	
Forms Input	None	None	Standard	Standard	
Control Character Printout	None	None	None	None	
Printout Queuing	None	None	None	None	
Revision & Status Reporting	None	None	None	None	
System Security	Optional communications lock	Keylock option, \$35	Keylock & password for communications	Keylock & password for communications	
TEXT INPUT FEATURES					
Auto Carrier Return	None	None	None	None	
Auto Word Wraparound	None	None	None	None	
Auto Margin Adjust	Standard	Standard	Standard	Standard	
Temporary Margins	None	None	Left only	Left only	
Auto Decimal Tab	Standard	Standard	Standard	Standard	
Hyphenation	Manual, 6-char. Hot Zone	Manual or ghost hyphens, 6-char. Hot Zone	Manual, adjustable (3 to 12 character) Hot Zone	Manual, adjustable (3 to 12 character) Hot Zone	
REMARKS & OTHER FEATURES					

An MT/50 can be upgraded to a MT/100, \$600
*Also features unattended assembly of documents from all stored or stored plus original text via standard Processing Feature
**Via Processing Feature

*Unattended assy of docs from all stored or stored plus original text via optional Processing Feature
**Via Processing Feature

Standalone Word Processing Systems

COMPANY	Interactive Computer*	Lanier	Lanier	Lanier
MODEL	System 800	LTE-1	LTE-2S-2D	No Problem
SYSTEM CONFIGURATION Configuration	Keyboard/CRT, diskette console, printer	Keyboard/CRT, diskette console, printer	Keyboard/CRT, diskette console, printer	Integral keyboard/CRT diskette console, printer
Memory Size Storage Media	48K or 56K Dual diskette	Diskette	Single* or dual diskette	32K to 96K Single or dual mini-diskette*
Storage Capacity DISPLAY STATION FEATURES	516K chars/diskette	300K char/diskette	300K chars/diskette	70K chars & 300K chars**
Screen Size & Type	12" diagonal CRT	12" diagonal CRT	14" diagonal CRT	14" diagonal CRT
Display Buffer Memory	2K char	63 or 95 line	16K	16K
Format & Capacity	21 lines x 96 chars or (2016 chars total)	24 lines x 80 chars or 15 lines x 128 chars	28 lines x 80 chars or (2240 chars total)	7 x 12 dot matrix
Character Generation	Dot matrix	Dot matrix	Left, right, up, down, home	Left, right, up, down, home
Cursor Positioning	7x9 dot matrix	Left, right, up, down, home	Up to 95 lines	Standard to 99 lines
Vertical Scrolling	Standard	Standard	Up to 128 chars	Standard to 254 chars
Horizontal Scrolling	None	None	None	Standard
Page Scrolling	Standard	Standard	Standard	Standard
Display Highlighting	None	Flashing	Standard	Standard
Character Size Control	Standard	None	Flashing	None
Character Pitch Display	None	None	None	None
Character Spacing Display	None	None	None	None
Line Spacing Display	Standard	Standard	Standard	Standard
Line Justify Display	Standard	Standard	Standard	Standard
Underscore Display	Standard	Standard	Standard	Standard
Sub-/Superscript Display	None	Standard	Standard	Standard
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER STATIONS FEATURES				
Printer Type & Speed	Diablo daisy 45 cps**	Daisy wheel 45 cps	Oume Sprint 3, 45 cps 8K	Oume Sprint 3, 45 cps 8K
Printer Buffer Memory	—	—	6.8-10-12-15	6.8-10-12-15
Character Pitch/Spacing	To 12	10-12	13"- or 26"	13"- or 26"
Writing Line Width	13"	13"	15"- or 28"	15"- or 28"
Carriage Paper Width	15"	15"	Standard	Standard
First Line Forms Advance	Standard	Standard	Standard	Standard
End-Of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub-/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	None	Standard	Standard
Bidirectional Printout	None**	None	Standard	Standard
Simultaneous Printout	None	Standard	Standard	Standard
GEN FUNCTIONAL FEATURES				
Media-Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	Prompts & status messages displayed	Prompts & status messages displayed
Stored Multiple Formats	Standard	None	Standard	Standard
Machine Dialog/Menu Prompt	Standard	None	None	One document limit
Forms Input	Standard	Standard	Print from display buffer or diskette	Status messages on display
Control Character Printout	Standard	None	Status messages on display	Keylock (N/C option)
Printout Queuing	None	Print from display buffer or diskette	Keylock (N/C option)	Keylock (N/C option)
Revision & Status Reporting	Standard	Standard	Standard	Standard
System Security	Optional	Standard	Standard	Standard
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	None	Standard	Standard	Standard
Hyphenation	Manual, discretionary hyphens	Manual	Manual	Semi-automatic, operator scan
REMARKS & OTHER FEATURES	*Marketed in the USA exclusively by Inter Comp Sys. mfrg by MCM **180 cps dot matrix printer & 300 lpm line printers also avail. These printers have bidirectional printout	Boldface printing avail	*Second diskette drive can be added at any time.	*Second diskette drive can be added at any time. **Extended Disk

Standalone Word Processing Systems

Interactive Computer	Lanier	Lanier	Lanier	COMPANY
System 800	LTE 1	LTE 2S/2D	No Problem	MODEL
Standard	Standard	Standard	Standard	TEXT INPUT FEATURES (cont'd)
Standard	Multiple lines centered simultaneously	Multiple lines centered simultaneously	Multiple lines centered simultaneously	Auto Input Underline Auto Centering
Standard	Standard	Standard	Standard	Auto Line Spacing Auto Page Numbering
Standard	Standard	Standard	Standard	Auto Headers/Footers
Standard	Standard	Standard	Standard	Auto Pagination
Standard	Standard	Standard	Standard	TEXT EDIT & MERGE FEATURES
Standard	Standard	Standard	Standard	Document Assembly/Merge
Standard	Standard	Standard	Standard	Search Capability
Standard	Standard	Standard	Standard	Delete Capability
Standard	Standard	Standard	Standard	Global Search & Replace
Standard	Standard	Standard	Standard	Block Move/Copy
None	None	Standard	Standard	Column Move/Delete
Standard	Operator defines no. of lines per page*	Standard	Standard	Auto Repagination
None	None	Standard	Standard	Auto Widow Adjust
Standard	Background alphanumeric sorts	Standard	Standard	Auto File Sort
Standard	Standard	Standard	Standard	Auto File Select
None	None	Standard	Standard	Auto Footnote Tie-In Term Dictionary/Glossary
Optional	Optional \$1,800 Half duplex asynch IBM 2741 & 2780 compat. 300 to 2400 baud** None	Optional \$1,800 Half duplex asynch IBM 2741 & 2780 compat. 300 to 2400 baud** None	Optional Textron TTY ASCII 3780 Financial programs*	COMMUNICATIONS Availability Format & Speed
Full	Optional ASCII & IBM CMC at 110 to 4800 baud	None	None	ARITHMETIC CAPABILITY EDP CAPABILITY Multiprogramming Compilers
Standard	None	None	16 optional packages avail	Applications Software
APL	None	OCR	Shared printer option, OCR photocomp opt.**	PERIPHERALS
Standard	Full accounting, inventory financial modeling*, line reader, punch card reader, RS 232 devices**	None	July 1977 USA	BACKGROUND INFORMATION First Delivery Date Country of Manufacture Installed Base Estimate PRICING & TERMS Purchase
Standard	Standard	Standard	—	Rental
Standard	Standard	Standard	March 1976 USA	Lease
Standard	Standard	Standard	—	Maintenance
Standard	Standard	Standard	—	Warranty & Support
Standard	Standard	Standard	—	REMARKS & OTHER FEATURES
Standard	Standard	Standard	\$10,990 (single disk)* \$11,990 (dual disk)**	*Document is indexed, paginated & numbered **Also TTY ASCII
Standard	Standard	Standard	\$14,900 (25) \$520 (2 yr) \$485 (2 yr)	***Cable connection for 2 systems to share a printer, \$300
Standard	Standard	Standard	Third party leasing agents \$900/year \$900/year 3 months, N/C operator training	90 day warranty, N/C operator training \$750/year
Standard	Standard	Standard	90 days parts & labor, 1 day training	*Optional, \$550, \$750 \$1,250 **Marketed as Solution Series, Levels I, II, III, IV depending on software. Prices are for level one. Avail w/o printer cable connect for shared printer XD single disk, \$6,000 XD dual disk, \$7,500
Standard	Standard	Standard	**Document is paginated, indexed & numbered ***Also mark sense reader	

Standalone Word Processing Systems

COMPANY	Lanier	Lexitron	Lexitron	Lexitron
MODEL	No Problem LC	911/912/913	921/922	942
SYSTEM CONFIGURATION Configuration	Keyboard/CRT, diskette console, printer	Keyboard/CRT/cassette console, printer	Keyboard/CRT, cassette console, printer	Keyboard/CRT/cassette console, printer
Memory Size Storage Media	Single or dual diskette*	Cassette or mini-diskette	Cassette or mini-diskette	Dual Cassette or mini-diskette
Storage Capacity	300K chars / diskette	1M chars / cassette*	1M chars / cassette*	1M chars / cassette*
DISPLAY STATION FEATURES Screen Size & Type	14" diagonal CRT	8½" x 11" CRT	8½" x 11" CRT	8½" x 11" CRT
Display Buffer Memory	63 or 95 line	8K chars	8K chars	8K chars
Format & Capacity	24 lines x 84 chars or 15 lines x 128 chars (5610 total)	66 lines x 85 chars	66 lines x 102 chars * (6732 chars total)	66 lines x 102 chars ** (6732 chars total)
Character Generation Cursor Positioning	Dot matrix	Stroke writing	Stroke writing	Stroke writing
	Left, right, up, down, home	Left, right, return	Left, right, return	Left, right, return
Vertical Scrolling	Up to 95 lines	Standard	Standard	Standard
Horizontal Scrolling	Up to 128 chars	None	None	None
Page Scrolling	Standard	Standard	Standard	Standard
Display Highlighting	Flashing	None	None	None
Character Size Control	None	None	None	None
Character Pitch Display	None	Standard	Standard	Standard
Character Spacing Display	None	Standard	None	None
Line Spacing Display	Standard	Single & double	Single & double	Single & double
Line Justify Display	Standard	Standard	None	Standard
Underline Display	Standard	Standard	Standard	Standard
Sub / Superscript Display	Standard	None	Optional	Standard
Multi-Column Page Display	Standard	None	None	None
Stored Form Recall / Display	Standard	None	None	None
Control Code Display	Standard	None	None	None
Format Statement Display	Standard	None	None	None
PRINTER STATIONS FEATURES				
Printer Type & Speed	Qume Sprint 3, 45 cps	IBM Executive 15 5 cps**	Daisy wheel 45 cps***	Daisy wheel 45 cps
Printer Buffer Memory	—	4K	4K	4K
Character Pitch / Spacing	6/8/10/12/15	Proportional	10/12	10/12
Writing Line Width	13" or 26"	12 ½" or 16"	13"	13"
Carrage Paper Width	15" or 28"	12 ½" or 16"	15"	15"
First Line Forms Advance	Standard	None	Standard	None
End-Of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	None	Standard	Standard
Sub / Superscript Printout	Standard	Standard	Standard	Standard
Non Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	None	None	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GEN. FUNCTIONAL FEATURES				
Media Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Margins only	Margins only	Margins only
Stored Multiple Formats	Standard	None	None	None
Machine Dialog / Menu Prompt	Prompts & status messages displayed	Prompts & status messages displayed	Prompts & status messages displayed	Prompts & status messages displayed
Forms Input	Standard	None	None	Standard
Control Character Printout	Standard	Print from display buffer or diskette	None	None
Printout Queuing	Standard	None	None	None
Revision & Status Reporting	Status messages on display	None	None	None
System Security	Keylock (N/C option)	None	None	None
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	None	None	None
Auto Word Wraparound	Standard	None	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	None
Temporary Margins	Standard	None	Standard	None
Auto Decimal Tab Hyphenation	Standard	Optional	Standard	Manual
	Manual	Manual	Manual	Manual
REMARKS & OTHER FEATURES	*Second diskette drive can be added at any time	*160K chars / diskette **912 is printer-less, 913 has a Qume high-speed proportional printer	*160K chars / diskette **66 lines x 122 chars (8052 total), optional ***Model 922 is printer-less	*160K chars / diskette **66 lines x 122 chars (8052 total), optional ***Full file sort optional

Standalone Word Processing Systems

COMPANY	Lanier	Lexitron	Lexitron	Lexitron	MODEL
	No Problem LC	911/912/913	921/922	942	TEXT INPUT FEATURES (cont'd)
Configuration	Standard	None	None	None	Auto Line Spacing Auto Page Numbering Auto Headers / Footers Auto Pagination
Memory Size Storage Media	Multiple lines centered simultaneously	Standard	Standard	Standard	TEXT EDIT & MERGE FEATURES Document Assembly / Merge
Storage Capacity	Standard	None	None	Standard	Search Capability
DISPLAY STATION FEATURES	Standard	None	Standard	Standard	Delete Capability
Screen Size & Type	Standard	Standard	Standard	By page number & cursor position C. L. document	Global Search & Replace
Display Buffer Memory	Standard	Standard	Standard	None	
Format & Capacity	Standard	Standard	Standard	By line or specified block	Block Move / Copy
Character Generation Cursor Positioning	Standard	Standard	Standard	None	Column Move / Delete
Vertical Scrolling	Standard	Standard	Standard	Standard	Auto Repagination
Horizontal Scrolling	Standard	Standard	Standard	Standard	Auto Widow Adjust
Page Scrolling	Standard	Standard	Standard	Standard	Auto File Sort
Display Highlighting	Standard	Standard	Standard	One field selection	Auto File Select
Character Size Control	Standard	Standard	Standard	None	Auto Footnote Tie-In Term Dictionary / Glossary
Character Pitch Display	Standard	Standard	Standard	None	COMMUNICATIONS Availability
Character Spacing Display	Standard	Standard	Standard	None	Format & Speed
Line Spacing Display	Standard	Standard	Standard	Optional Programmable IBM 2741 ASCII PT-PT, 2780 TWX / Telex	ARITHMETIC CAPABILITY EDP CAPABILITY
Line Justify Display	Standard	Standard	Standard	None	Multiprogramming Compilers
Underline Display	Standard	Standard	Standard	None	Applications Software
Sub / Superscript Display	Standard	Standard	Standard	None	PERIPHERALS
Multi-Column Page Display	Standard	Standard	Standard	None	
Stored Form Recall / Display	Standard	Standard	Standard	None	BACKGROUND INFORMATION First Delivery Date
Control Code Display	Standard	Standard	Standard	None	Country of Manufacture
Format Statement Display	Standard	Standard	Standard	None	Installed Base Estimate
PRINTER STATIONS FEATURES				1972 USA	PRICING & TERMS Purchase
Printer Type & Speed				1974 USA	Rental
Printer Buffer Memory				—	Lease
Character Pitch / Spacing				1977 USA	Maintenance
Writing Line Width				—	Warranty & Support
Carrage Paper Width				617.950	
First Line Forms Advance				\$12,500 (921) \$11,950 (922)	
End-Of-Page Stop				\$560	
Justified Printout				\$429	
Sub / Superscript Printout				\$285 (5-yr) \$255 (5-yr)	
Non Adjust Printout				\$780 / yr	
Bidirectional Printout				\$75 / mo	
Simultaneous Printout				90 days, parts & labor on purchase	
GEN. FUNCTIONAL FEATURES				90 days	
Media Stored Format					
Default Format Statement					
Stored Multiple Formats					
Machine Dialog / Menu Prompt					
Forms Input					
Control Character Printout					
Printout Queuing					
Revision & Status Reporting					
System Security					
TEXT INPUT FEATURES					
Auto Carrier Return					
Auto Word Wraparound					
Auto Margin Adjust					
Temporary Margins					
Auto Decimal Tab Hyphenation					
REMARKS & OTHER FEATURES					

Standalone Word Processing Systems

COMPANY	Lexitron	Lexitron	Lexitron	Megadata Corp.
MODEL	Videotype 1101 & 1102	1201 & 1202*	1303*	2001
SYSTEM CONFIGURATION				
Configuration	Keyboard/CRT cassette console printer	Keyboard/CRT, diskette console printer	Keyboard/CRT, diskette console, printer	Keyboard/CRT, diskette console, printer
Memory Size	32K 64K	84K to 96K	96K	64K
Storage Media	Cassette	Diskette	Dual diskette	Dual diskette
DISPLAY STATION FEATURES				
Screen Size & Type	5" x 10" CRT	5" x 10" CRT	5" x 10" CRT	15" diagonal
Display Buffer Memory	8K chars	8K chars	8K chars	
Format & Capacity	25 lines x 102 chars (2550 chars total)	25 lines x 102 chars (2550 chars total)	25 lines x 102 chars (2550 chars total)	20 lines x 80 chars (1600 chars total)
Character Generation	8 x 14 dot matrix	8 x 14 dot matrix	8 x 14 dot matrix	8 x 12 dot matrix
Cursor Positioning	Left, right, up, down	Left, right, up, down	Left, right, up, down	Left, right, up, down, home, return
Vertical Scrolling	Std to 66 lines	Std to 66 lines	Std to 66 lines	Standard
Horizontal Scrolling	Std to 126 chars	Std to 126 chars**	Std to 126 lines	None
Page Scrolling	Standard	Standard	Standard	Forward & Reverse
Display Highlighting	Standard	Standard	Standard	None
Character Size Control	Standard	Standard	Standard	None
Character Pitch Display	Standard	Standard	Standard	None
Character Spacing Display	None	None	Standard	Standard
Line Spacing Display	Standard	Standard	Standard	None
Line Justify Display	None	None	Standard	Standard
Underscore Display	Standard	Standard	Standard	Standard
Sub Superscript Display	Codes only*	Codes only**	Codes only	Standard
Multi-Column Page Display	None	None	None	Standard
Stored Form Recall/Display	Standard*	Standard**	Standard	Standard
Control Code Display	None	None	None	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER STATIONS FEATURES				
Printer Type & Speed	Qume daisy 55 cps	Qume daisy 55 cps	Qume daisy 55 cps	NEC thimble 55 cps
Printer Buffer Memory	3,000 chars	3,000 chars	3,000 chars	—
Character Pitch / Spacing	10/12	10/12	10/12	10/12/15
Writing Line Width	13"	13"	13"	13"
Carriage Paper Width	15"	15"	15"	15"
First Line Forms Advance	None	None	None	Standard
End Of Page Stop	Standard	Standard	Standard	Standard
Justified Printout	None	Standard**	Standard	Standard
Sub Superscript Printout	Standard*	Standard**	Standard	Standard
No Adjust Printout	Standard	Standard	Standard	Standard
Bi-directional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GEN FUNCTIONAL FEATURES				
Media Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Margins only	Margins only	Standard	Standard
Stored Multiple Formats	None	None	Standard	Standard
Machine Dialog / Menu Prompt	Standard	Standard	Standard	Standard
Forms Input	Standard*	Standard*	Standard	Standard
Control Character Printout	None	None	Optional	Standard
Printout Queuing	None	Standard*	None	Standard
Revision & Status Reporting	Standard	Standard	Standard	None
System Security	None	None	None	Optional
TEXT INPUT FEATURES				
Auto Carriage Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard*	Standard**	Standard	Standard
Temporary Margins	None	Standard	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	System scan before printout	System scan before printout	System scan before printout	Manual, Hot Zone
REMARKS & OTHER FEATURES	*Standard features on Model 1102 only.	*Model 1202 may be configured in the RayText shared resource system. **Standard features on Model 1202 only.	*May be configured in the RayText shared resource system.	

Standalone Word Processing Systems

Lexitron	Lexitron	Lexitron	Megadata Corp.	COMPANY
Videotype 1101 & 1102	1201 & 1202*	1303*	2001	MODEL
None	Standard	Standard	Standard	TEXT INPUT FEATURES (cont'd)
None	Standard	Standard	Standard	Auto Input Underline Auto Centering
Standard w/ Text Assembly*	Standard w/ Text Assembly	Standard w/ Text Assembly	Standard	Auto Line Spacing Auto Page Numbering
w/ Text Assembly Standard*	w/ Text Assembly Standard	w/ Text Assembly Standard	Headers	Auto Headers/Footers
Standard	Standard	Standard	Standard	Auto Pagination
Standard	Standard	Standard	Standard	TEXT EDIT & MERGE FEATURES
Standard	Standard	Standard	Standard	Document Assembly/Merge
Standard	Standard	Standard	Standard	Search Capability
By document & page no., cursor position C, L, document, specified block, page Standard*	By document & page no., cursor position C, L, document, specified block, paragraph, page Standard**	By document & page no., cursor position C, L, document, specified block, paragraph, page Standard	Standard C, W, sentence, para block Standard	Delete Capability
Standard	Standard	Standard	Standard	Block Move/Copy
Standard*	Standard**	Standard	Standard	Column Move/Delete
Standard*	Standard**	Standard	Standard	Auto Repagination
None	None	None	Standard	Auto Widow Adjust
None	None	None	None	Auto File Sort
Standard	Standard	Standard	Standard	Auto File Select
None	None	None	None	Auto Footnote Tie-in Term Dictionary/Glossary
Optional Programmable IBM 2741, 2780, 3780, 2741, or ASCII-compatible, or 3780 sys-to-sys None	Optional 2780, 3780, 2741, or ASCII-compatible, or VT-VT None	Optional 2780, 3780, 2741, or ASCII-compatible, or VT-VT None	Optional Async, bisync, sync to 384 KB	COMMUNICATIONS Availability Format & Speed
None	None	None	Std with optional forms control	ARITHMETIC CAPABILITY EDP CAPABILITY Multiprogramming Compilers
None	None	None	None	Applications Software
Basic Interpreter, Math, Records Process, ** OCR mag card adaptor, Wide & Twin Track Printers, Speed Feed January 1978 USA —	Basic Interpreter, Math, Records Process, ** OCR mag card adaptor, Wide & Twin Track printers, Speed Feed, Print Multiplexer January 1978 USA —	Basic Interpreter, Math, Records Process, **OCR mag card adaptor, Wide & Twin Track printers, Speed Feed, Print Multiplexer January 1979 USA —	Froms Control, Communications, TLX punch, hard disk, line printer, card read, light pen	PERIPHERALS
\$9,995 (Model 1101) \$13,850 (Model 1102) \$450 \$625 \$625 \$295 (3-yr) \$395 (3-yr) \$60 mo \$65 mo \$65/mo 90 days, parts & labor	\$9,995 (Model 1201) \$13,850 (Model 1202) \$450 \$700 \$450 (3-yr) \$395 (3-yr) \$60 mo \$75 90 days, parts & labor on purchase	\$15,500 \$700 \$450 (3-yr) \$75 90 days, parts & labor on purchase	\$12,500 — 3rd party \$120/mo 90 days, Megadata and 3rd party	BACKGROUND INFORMATION First Delivery Date Country of Manufacture Installed Base Estimate PRICING & TERMS Purchase Rental Lease Maintenance Warranty & Support
*Standard features on Model 1102 only. Upgrade from 1101 to 1102, \$2,855	*Model 1202 may be configured in the RayText shared resource system. **Standard features on Model 1202 only.	*May be configured in the RayText shared resource system. **Standard features on 1202 only. \$2,095 1630 Print Multiplexer	Includes dual floppy disk drives and 55 cps bidirectional printer, opt compatibility with Burroughs, Univac, IBM, Honeywell for remote communications.	REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	Megadata Corp.	Micom	Micom	NBI
MODEL	700 RTE	2000	2001	System I
SYSTEM CONFIGURATION Configuration	Keyboard/CRT, diskette console, printer	Keyboard/CRT, diskette console, printer	Keyboard/CRT, CPU/dual diskette console, printer	Keyboard, CRT/diskette console, printer
Memory Size Storage Media	64K Dual mini diskettes	64K Single or dual diskette	64K Dual diskette	Diskette
Storage Capacity DISPLAY STATION FEATURES	80K/diskette 15" diagonal	300K chars./diskette 12" diagonal CRT	300K chars./diskette 15" diagonal CRT	205K chars./diskette 12" diagonal CRT
Screen Size & Type	8K	8K	4K chars.	4K chars.
Display Buffer Memory	31 lines x 80 chars. (1600 chars. total)	31 lines x 80 chars. (2480 chars. total)	16 lines x 80 chars. (1280 chars. total)	
Format & Capacity	8 x 12 dot matrix	8 x 15 dot matrix	9 x 16 dot matrix	
Character Generation Cursor Positioning	Left, right, up, down, home, return	Left, right, up, down, home	Left, right, up, down, end of page	
Vertical Scrolling	Standard	Standard	Standard to 94 lines	Standard
Horizontal Scrolling	None	Standard	Standard to 250 chars.	None
Page Scrolling	Forward & Reverse	Standard, Halftone	Standard, Halftone	None
Display Highlighting	None	None	None	None
Character Size Control	None	None	None	None
Character Pitch Display	None	None	None	None
Character Spacing Display	None	Standard	Standard	Standard
Line Spacing Display	Standard	None	Standard	Standard
Line Justify Display	None	Standard	Standard	Standard
Underscore Display	Standard	Standard	Standard	Code only
Sub-Superscript Display	Standard	Standard	Standard	None
Multi-Column Paper Display	None	Standard	Standard	Optional
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER STATIONS FEATURES				
Printer Type & Speed	NEC thimble, 55 cps	Qume daisy 45/55 cps*	Qume daisy 45/55 cps*	Qume daisy 30 or 55 cps
Printer Buffer Memory				
Character Pitch / Spacing				
Writing Line Width	10/12/15	1 line	4K	
Carriage Paper Width	13"	3 to 15 pitch	10/12	
First Line Forms Advance	15"	13" or 26"	13 2"	
End Of Page Stop	Standard	15"	15"	
Justified Printout	Standard	Standard	Standard	
Sub-Superscript Printout	Standard	Standard	Standard	
Non-Adjust Printout	Standard	Standard	Standard	
Bi-directional Printout	Standard	Standard	Standard	
Simultaneous Printout	Standard	Standard	Standard	
GEN FUNCTIONAL FEATURES				
Media Stored Format	Standard	Standard	Standard	
Default Format Statement	Standard	Standard	Standard	
Stored Multiple Formats	Standard	Standard	Standard	
Machine Dialog/Menu Prompt	Standard & error message	Prompting & cueing on display**	Status & error messages, cues displayed	
Forms Input	Optional	Standard	Optional	
Control Character Printout	None	Standard	None	
Printout Queuing	Standard	Standard	Standard	
Revision & Status Reporting	None	None	None	
System Security	Optional	None	None	Keylock
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	
Auto Word Wraparound	Standard	Standard	Standard	
Auto Margin Adjust	Standard	Standard	Standard	
Temporary Margins	Standard	Standard	Standard	
Auto Decimal Tab	Standard	Manual, adjustable Hot Zone	Standard	Standard
Hyphenation	Hot Zone	Manual, adjustable Hot Zone w/ auto scan	Manual, adjustable Hot Zone w/ auto scan	Manual
REMARKS & OTHER FEATURES		*Diablo daisy, 40 cps also avail. **French, German, Swedish, Dutch prompts available Optional programmable character set.	*Diablo daisy, 40 cps also avail.	

Standalone Word Processing Systems

Megadata	Micom	Micom	NBI	COMPANY
700 RTE	2000	2001	System I	MODEL
Standard	Standard	Standard	Standard	TEXT INPUT FEATURES (cont'd) Auto Input Underline Auto Centering
Standard	Standard	Standard	Standard	Auto Line Spacing Auto Page Numbering Auto Headers/Footers Auto Pagination
Headers	Standard	Standard	Standard	TEXT EDIT & MERGE FEATURES Document Assembly/Merge
Standard	Standard	Standard	Standard	Search Capability
Standard	Standard	Standard	Standard	Delete Capability
C. W. sentence, paragraph, block	Standard	By page name, char string & cursor pos. C. W., L. S. P or specified block	By page no. & cursor position C. W., L. Block	Global Search & Replace
Standard	Standard	Standard	Standard	Block Move/Copy
None	Standard	Standard	Standard	Column Move/Delete
Standard	Standard	Standard	Standard	Auto Repagination
None	None	Standard	Standard	Auto Widow Adjust
None	None	Standard	Standard	Auto File Sort
None	None	Standard	Standard	Auto File Select
Optional	Optional	Asynch. ASCII & IBM 2741-compat. at 50 to 1200 baud*	Optional IBM 2741-compat. at 50 to 1200 baud	COMMUNICATIONS Availability Format & Speed
Std (with optional forms control)	Standard	2741-compat. at 50 to 1200 baud*	—	ARITHMETIC CAPABILITY EDP CAPABILITY Multiprogramming Compilers
None	None	BASIC	None	Applications Software
Forms Control, Communications	Records Process, Sort, Math, Keystroke Memory, TIIX punch, hard disk, OCR, Paper tape reader/writer, RS-232 devices, photocomposition	Records Process, Sort, Math, Keystroke Memory, Dualhead Printer, Wide Track Printer, Shared Printer Interface	Sheet feeder	PERIPHERALS
February 1980	June 1976 (Canada)	—	October 1976	BACKGROUND INFORMATION First Delivery Date
USA	Canada	—	USA	Country of Manufacture
150	650	—	—	Installed Base Estimate
\$9,500	\$9,870 (single disk.) \$12,690 (dual diskette) \$570 (2-yr.) \$645 (2-yr.) \$35 (5-yr.) \$403	\$10,500 (single disk.) \$13,500 (dual disk.) \$621 (2-yr.) \$695 (2-yr.)	\$11,190* \$5,620 (reconditioned)	PRICING & TERMS Purchase
—	—	Not available	—	Rental
3rd party	—	—	\$280 (2-yr) incl. maint. \$80/mo	Lease
\$95/mo.	\$869/yr. \$918/yr.	\$939/yr. \$984/yr.	90 days	Maintenance
90 days	Megadata and 3rd party	90 days, parts & labor	90 days, parts & labor	Warranty & Support
Desktop terminal with integral dual mini-floppy and letter quality printer, opt. communications for remote DP requirements	*Also Bisync 2780/3780 at 2400 baud. Can perform editing sorting & printing of different documents simultaneously. Add'l. text entry station, \$9,900 can share printer in cluster configuration			REMARKS & OTHER FEATURES
				NBI System I w/ single disk, 30 cps printer.

Standalone Word Processing Systems

COMPANY	NBI	NBI	Olivetti	Olivetti
MODEL	System II	3000*	TES-401	TES 501
SYSTEM CONFIGURATION				
Configuration	Keyboard, CRT, diskette console, printer	Keyboard, CRT, diskette console, printer	Keyboard, display, printer	Keyboard, display, diskette console
Memory Size	—	—	7500 chars	—
Storage Media	Single or dual diskette	Single or dual diskette	Min-diskette	Dual diskette
Storage Capacity	173K chars./diskette	200K chars./diskette	7500 chars./diskette	325K chars./diskette
DISPLAY STATION FEATURES				
Screen Size & Type	12" diagonal CRT	12" diagonal CRT	1" x 8" Gas plasma	1" x 8" Gas plasma
Display Buffer Memory	4K chars.	—	180 chars.	180 chars.
Format & Capacity	16 lines x 80 chars. (1280 chars. total)	16 lines x 80 chars. (1280 chars. total)	1 line x 21 characters (21 chars. total)	5 x 12 dot matrix
Character Generation	9 x 16 dot matrix	9 x 16 dot matrix	5 x 12 dot matrix	5 x 12 dot matrix
Cursor Positioning	Left, right, up, down, next page, previous page	Left, right	Left, right	Left, right
Vertical Scrolling	Standard	Standard	None	None
Horizontal Scrolling	None	Standard	Standard	Standard
Page Scrolling	Standard	Standard	None	None
Display Highlighting	None	Standard	None	None
Character Size Control	None	Standard	None	None
Character Pitch Display	None	Standard	None	None
Character Spacing Display	None	Standard	None	None
Line Spacing Display	None	Standard	Standard	Standard
Line Justify Display	None	Standard	Standard	Standard
Underscore Display	Standard	Standard	Standard	Standard
Sub-Superscript Display	Code only	Standard	None	Standard
Mult-Column Page Display	None	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER STATIONS FEATURES				
Printer Type & Speed	Daisy 30-40 or 55 cps	Daisy wheel, 55 cps*	Olivetti daisy 30 cps	Olivetti daisy 55 cps
Printer Buffer Memory	Print from diskette	—	—	—
Character Pitch / Spacing	10, 12, 15 proportional*	10, 12, 15	10, 12 proportional	10, 12 proportional
Writing Line Width	13.2"	13.2"	15"	15"
Carriage Paper Width	15"	15"	17"	17"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-Of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub-Superscript Printout	Standard	Standard	None	None
Non-Adjust Printout	Standard	Standard	None	None
Bi-directional Printout	None	Standard	None	None
Simultaneous Printout	None	Standard	None	None
GEN. FUNCTIONAL FEATURES				
Media Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Status & error messages, cues displayed	Standard
Machine Dialog, Menu Prompt	Standard	Standard	Standard	Standard
Forms Input	Optional	Standard	Standard	Standard
Control Character Printout	Standard	Standard	Standard	Standard
Printout Queuing	Standard	Standard	Standard, up to 8 docs	None
Revision & Status Reporting	None	Std. via document history directory	None	Machine mode on display
System Security	Keylock	Diskette & document passwords	Machine mode on display	None
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	Ghost hyphens & manual, adjustable Hot Zone	Scan before print & operator decision	Manual, full-line Hot Zone	Manual, full-line Hot Zone
REMARKS & OTHER FEATURES	*Only on 40 cps printer Dual diskette optional, \$2,500	*System supports 2 keystrokes, 2 printers **40 cps proportional printer, Wide Track, Twin Track printers optional		

Standalone Word Processing Systems

COMPANY	NBI	NBI	Olivetti	Olivetti	MODEL
System II	3000	TES-401	TES 501		TEXT INPUT FEATURES (cont'd)
Standard	Standard	Standard	Standard	Standard	Auto Input Underline
Standard	Standard	Standard	Standard	Standard	Auto Centering
Standard	Standard	Standard	Standard	Standard	Auto Line Spacing
Top or bottom	Standard	Standard	Standard	Standard	Auto Page Numbering
Standard	Standard	Standard	Standard	Standard	Auto Headers / Footers
Standard	Standard	Standard	Standard	Standard	Auto Pagination
Standard	Standard	Standard	Standard	Standard	TEXT EDIT & MERGE FEATURES
Standard	Standard	Standard	Standard	Standard	Document Assembly / Merge
Standard	Standard	Standard	Standard	Standard	Search Capability
Standard	Standard	Standard	Standard	Standard	Delete Capability
Standard	Standard	Standard	Standard	Standard	Global Search & Replace
Standard	Standard	Standard	Standard	Standard	Block Move / Copy
Standard	Standard	Standard	Standard	Standard	Column Move / Delete
Standard	Standard	Standard	Standard	Standard	Auto Repagination
Standard	Standard	Standard	Standard	Standard	Auto Widow Adjust
Standard	Standard	Standard	Standard	Standard	Auto File Sort
Optional	Optional	Optional	Optional	Optional	Auto File Select
Optional	Optional	Optional	Optional	Optional	Auto Footnote Tie-In
Standard	Standard	Standard	Standard	Standard	Term Dictionary / Glossary
Standard	Standard	Standard	Standard	Standard	COMMUNICATIONS
Standard	Standard	Standard	Standard	Standard	Availability
Optional	Optional	Optional	Optional	Point-to-point	Format & Speed
Full Optional Program	Optional	Optional	None	Column addition	ARITHMETIC CAPABILITY
Optional	Optional	Optional	None	None	EDP CAPABILITY
Versatil user program-	None	None	None	None	Multiprogramming
None	None	None	None	None	Compilers
OCR, photocomposition interface	Printer options, sheet feeder, add'l. diskette drive, OCR, photocomp	None	None	None	APPLICATIONS SOFTWARE
September 1975	Printer options, sheet feeder, add'l. diskette drive, OCR, photocomp	None	None	None	PERIPHERALS
USA	June 1978	May 1977			BACKGROUND INFORMATION
—	USA	Italy			First Delivery Date
\$14,690*	\$13,900**	\$5,990	\$8,950		Country of Manufacture
\$7,470 (reconditioned)	—	\$265 (12-mo.)	\$405 (12-mo.)		Installed Base Estimate
—	—	\$235 (24-mo.)	\$345 (24-mo.)		PURCHASING
\$265 (3-yr) incl. maint.	\$485 (3-yr), incl. maint.	\$318 (2-yr.), \$228 (3-yr.)	\$475 (2-yr.), \$340 (3-yr.)		Rental
\$80/mo.	\$80/mo.	\$183 (4-yr.), \$157 (5-yr.)	\$274 (4-yr.), \$234 (5-yr.)		Lease
90 days	90 day warranty	\$41/mo.	\$70/mo.		Maintenance
					Warranty & Support
					REMARKS & OTHER FEATURES
					*Arabic or Roman numbering, top or bottom of page
					**Includes single station, single diskette, printer
					*Line control unit, \$2,995
					**Medical, Personnel packages also avail

Standalone Word Processing Systems

COMPANY	Olivetti	Olympia	Olympia	Ontel
MODEL	TES-701	6010 Memory Typewriter	6020 Textsystem	OP-1
SYSTEM CONFIGURATION				
Configuration	Keyboard, CRT/ diskette console, printer	Typewriter	Keyboard/ printer, mini-diskette console	Keyboard, CRT, printer, diskette unit/disk unit, mini diskette
Memory Size	—	4K	7K	48K
Storage Media	Single or dual diskette	Internal tape loop*	Single or dual mini-diskette	Mini standard diskette or 10Mb hard disk
Storage Capacity	250K characters/diskette	200K characters	70K char./diskette	500K chars./diskette
DISPLAY STATION FEATURES				
Screen Size & Type	12" diagonal CRT	Not Available	One line	14 inch non glare CRT
Display Buffer Memory	16 lines x 80 chars (1280 characters total)	Not Available	—	7,200 characters
Format & Capacity	9 x 6 dot matrix	Not Available	1 line x 20 characters	24 lines x 80 chars (1920 chars. total)
Character Generation	Left, right, up, down, home	Not Available	5 x 7 dot matrix	Dot matrix
Cursor Positioning	Not Available	Fixed	Standard	Standard
Vertical Scrolling	Standard	Not Available	Standard	Standard
Horizontal Scrolling	Standard, to 240 chars	Not Available	Standard	Standard
Page Scrolling	Standard	Not Available	None	Standard
Display Highlighting	Standard	Not Available	None	Standard
Character Size Control	None	Not Available	None	None
Character Pitch Display	None	Not Available	—	Not available
Character Spacing Display	None	Not Available	—	Not available
Line Spacing Display	Displays line count	Not Available	—	Standard
Line Justify Display	None	Not Available	None	Not available
Underscore Display	Standard	Not Available	Standard	Standard
Sub-/Superscript Display	Standard	Not Available	Standard	Available
Multi-Column Page Display	Standard	Not Available	None	Standard
Stored Form Recall / Display	—	Not Available	Standard	Standard
Control Code Display	Standard	Not Available	Standard	Standard
Format Statement Display	Standard	Not Available	Standard	Standard
PRINTER STATIONS FEATURES				
Printer Type & Speed	Daisy wheel, 40 cps	Olympia 17.5 cps	Olympia 17.5 cps	Diablo 1345, 1355*
Printer Buffer Memory	8 characters	8 characters	2 lines	Full page (90 lines)
Character Pitch / Spacing	10/12/prop.	10/12	10/12/15 prop./stand	10/12-15 (prop./stand)
Writing Line Width	13.2"	10.4"	10.4"	13"
Carriage Paper Width	15"	14"	14"	15"
First Line Forms Advance	Standard	None	Standard	Standard
End-Of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	None	Standard	Standard
Sub-/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	None	Standard	Standard
Bottom-line Printout	Standard	None	Standard	Standard
Simultaneous Printout	Standard	None	None	Standard
GEN FUNCTIONAL FEATURES				
Media-Stored Format	Standard	None	Standard	Standard
Default Format Statement	Standard	None	Standard	Standard
Stored Multiple Formats	Standard	None	Standard	Standard
Machine Dialog/Menu Prompt	Standard	None	Standard	Standard
Forms Input	None	None	Standard	Standard
Control Character Printout	—	None	None	None
Printout Queuing	Standard	None	None	None
Revision & Status Reporting	Standard	None	None	Standard
System Security	Document, diskette passwords	Optional, keylock**	—	Standard (hard disk only)
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	None	Standard	Standard
Auto Word Wraparound	Standard	None	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	System scan before print, operator decision	Manual and pre-hyphen	Standard	Standard
6-character hot zone				
REMARKS & OTHER FEATURES		*Multi-track store recall **\$55		*Qume Sprint

Standalone Word Processing Systems

COMPANY	Olivetti	Olympia	Olympia	Ontel
MODEL	TES-701	6010 Memory Typewriter	6020 Textsystem	OP-1
TEXT INPUT FEATURES (cont'd)				
Auto Input Underline	Standard	Standard	Standard	Standard
Auto Centering	Standard	Standard	Standard	Standard
Auto Line Spacing	Standard	Standard	Standard	Standard
Auto Page Numbering	Standard	Standard	Standard	Standard
Auto Headers / Footers	Standard	Standard	Standard	Standard
Auto Pagination	Standard	Standard	Standard	Standard
TEXT EDIT & MERGE FEATURES				
Document Assembly / Merge	Standard	Standard	Standard	Standard
MODEL				
SEARCH CAPABILITY	Stored paras. assembled & merged w/glossary entries or keyboarded text	Stored text assembled & merged w/keyboarded text	Multiple paragraphs assembled with variable text	Search Capability
Character string, page, document	By document, page no., char. string & cursor C. W. L. spec., block	By skipping C. W. L. P Backspace & C. W. L. P & Page Standard	Character string, page, document	Delete Capability
Global Search & Replace	Standard, auto or selective replacement or deletion	None	Manual or auto replace of all occurrences of character string	Global Search & Replace
BLOCK MOVE / COPY	Standard	None	Standard	Block Move / Copy
COLUMN MOVE / DELETE	Standard	None	Standard	Column Move / Delete
AUTO REPAGINATION	Standard	None	Standard	Auto Repagination
AUTO WIDOW ADJUST	Standard	None	Standard	Auto Widow Adjust
AUTO FILE SORT	Standard	None	Standard	Auto File Sort
AUTO FILE SELECT	Standard	None	Standard	Auto File Select
AUTO FOOTNOTE TIE-IN	Standard	None	Standard	Auto Footnote Tie-In
TERM DICTIONARY / GLOSSARY	Standard	None	Standard	Term Dictionary / Glossary
COMMUNICATIONS	Optional	None	None	Availability
Format & Speed	Asynchronous ASCII, TWX, TTY	—	Standard 19200 Baud (max)	Format & Speed
ARITHMETIC CAPABILITY	Column & Row, Add/Sub, Mult, Div	None	Standard	EDP CAPABILITY
Multiprogramming	None	None	Standard	LINKASM, OP-L
Compilers	None	None	Standard	Applications Software
PERIPHERALS	Legal pkg., math pkg.	None	None	8-User Hard Disk Controller single/double diskettes (std / mini)
BACKGROUND INFORMATION	Sprocket feed, sheet feeder	None	None	Rental
First Delivery Date	August 1979 USA	July 1978 West Germany	April 1980 USA	Lease
Country of Manufacture	—	—	January 1974	Maintenance
Installation Base Estimate	—	—	15,000	Warranty & Support
PRICING & TERMS	\$13,100** \$14,150** \$646** \$695*** (12-mo.) \$585** \$635*** (24-mo.) Available	\$4,600	\$6,250	Purchase
Purchase	—	—	OEM	
Rental	—	—	N/A	
Lease	—	—	N/A	
Maintenance	Avail. dependent upon configuration	\$142 (5-yr)	\$174 (5-yr)	Depot-Level/ 3rd party service
Warranty & Support	90 days	\$348/yr.	\$468/yr.	90 days
REMARKS & OTHER FEATURES	*Arabic Roman even **Cost for CRT keyboard, single diskette drive, printer ***Cost for CRT keyboard, dual diskette drives, printer			

Standalone Word Processing Systems

COMPANY	Q1 Corporation	Oyx	Oyx	Oyx
MODEL	Lite & Microlite	Intelligent Typewriter Level 1	Intelligent Typewriter Level 1 Plus	Intelligent Typewriter Level 2
SYSTEM CONFIGURATION Configuration	Keyboard/display, diskette console, printer	Keyboard/printer	Keyboard/printer	Keyboard/printer
Memory Size Storage Media	Dual diskette	1K chars (phrase/format)	8K characters	10K chars
Storage Capacity DISPLAY STATION FEATURES	1 Mb chars / diskette(Lite)*	1K chars (phrase/format)	8K characters	10K chars
Screen Size & Type	Gas plasma	Not Available	Optional 1" x 5" LED	Optional 1" x 5" LED
Display Buffer Memory	—	Not Available	1 line x 24 chars (24 chars total)	1 line x 24 chars (24 chars total)
Format & Capacity	6 lines x 47 chars or 12 lines x 47 chars	Not Available	5 x 7 dot matrix	5 x 7 dot matrix
Character Generation Cursor Positioning	Left, right, up, down	Not Available	Fixed	Fixed
Vertical Scrolling	Standard	Not Available	None	None
Horizontal Scrolling	None	Not Available	Standard	Standard
Page Scrolling	None	Not Available	None	None
Display Highlighting	None	Not Available	None	None
Character Size Control	None	Not Available	None	None
Character Pitch Display	None	Not Available	None	None
Character Spacing Display	None	Not Available	None	None
Line Spacing Display	None	Not Available	None	None
Line Justify Display	None	Not Available	None	Standard
Underscore Display	Codes only	Not Available	Codes only	Standard
Sub Superscript Display	Codes only	Not Available	Codes only	Codes only
Multi-Column Page Display	None	Not Available	None	None
Stored Form Recall/ Display	None	Not Available	None	None
Control Code Display	Standard	Not Available	None	None
Format Statement Display	Standard	Not Available	Standard	Standard
PRINTER STATIONS FEATURES	Diablo daisy 45 cps	Oyx daisy wheel 30 cps	Oyx daisy wheel, 30 cps	Oyx daisy wheel 30 cps
Printer Type & Speed	10/12/15 prop	One typing line 10/12 prop	One typing line 10/12 prop	One typing line 10/12 prop
Printer Buffer Memory	13 5"	13"	13"	13"
Writing Line Width	15"	15 25"	15 25"	15 25"
Carriage Paper Width	Standard	Standard	Standard	Standard
First Line Form Advance	Standard	None	None	Standard
End Of Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub Superscript Printout	Standard	Standard	Standard	Standard
Non Adjust Printout	Standard	Standard	Standard	Standard
Bi-directional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	None	None	None
GEN. FUNCTIONAL FEATURES	—	—	—	—
Media Stored Format	Standard	None	None	None
Default Format Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog/Menu Prompt	Limited cueing	None	None	None
Forms Input	—	None	None	None
Control Character Printout	None	None	None	None
Printout Queuing	None	None	None	None
Revision & Status Reporting	—	None	None	None
System Security	File protect	None	None	None
TEXT INPUT FEATURES	—	—	—	—
Auto Carrier Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	—	None	None	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	Manual	Standard	Standard	Standard
REMARKS & OTHER FEATURES	*400K chars / diskette (Microlite) Optional 27 or 54 Mb rigid disk avail for Lite	—	—	—

Standalone Word Processing Systems

Q1 Corporation	Oyx	Oyx	Oyx	COMPANY
Lite & Microlite	Intelligent Typewriter Level 1	Intelligent Typewriter Level 1 Plus	Intelligent Typewriter Level 2	TEXT INPUT FEATURES (cont'd)
Standard	Standard	Standard	Standard	Auto Input Underline
Standard	Standard	Standard	Standard	Auto Centering
Standard	None	None	None	Auto Line Spacing
Standard	None	None	None	Auto Page Numbering
Standard	None	None	None	Auto Headers/Footers
Standard	None	None	None	Auto Pagination
Standard	None	None	None	TEXT EDIT & MERGE FEATURES Document Assembly/Merge
Standard	None	None	None	Search Capability
Standard	None	None	None	Delete Capability
Standard	None	None	None	Global Search & Replace
Standard	None	None	Standard	Block Move/Copy
Standard	None	None	None	Column Move/Delete
Standard	None	None	Standard	Auto Repagination
Standard	None	None	Standard	Auto Widow Adjust
Standard	None	None	None	Auto File Sort
Standard	None	None	None	Auto File Select
Standard	None	None	None	Auto Footnote Tie-in Term Dictionary/Glossary
Standard	None	None	None	COMMUNICATIONS
Standard	None	None	None	Availability
Standard	None	None	None	Format & Speed
Standard	None	None	Optional	Optional Oyx-to-Oyx, Oyx-to-Vydec
Standard	None	None	—	Asynch 1200 bps, Oyx-to-TTY, Asynch 110-300 bps
Standard	None	None	None	None
Standard	None	None	None	Optional Oyx-to-Oyx, Oyx-to-Vydec
Standard	None	None	—	Asynch 1200 bps, Oyx-to-TTY, Asynch 110-300 bps
Standard	None	None	None	None
Standard	None	None	None	Applications Software
Standard	None	None	None	PERIPHERALS
Standard	None	None	—	BACKGROUND INFORMATION
Standard	None	None	—	First Delivery Date
Standard	None	None	—	Country of Manufacture
Standard	None	None	—	Installed Base Estimate
Standard	None	None	—	PRICING & TERMS
Standard	None	None	—	Purchase
Standard	None	None	—	Rental
Standard	None	None	—	Lease
Standard	None	None	—	Maintenance
Standard	None	None	—	Warranty & Support
Standard	None	None	—	REMARKS & OTHER FEATURES
Standard	None	None	Upgradable to all higher levels	Upgradable to all higher levels
Standard	None	None	*Plus installation charge of \$35	*Plus installation charge of \$60

Standalone Word Processing Systems

COMPANY	Oyx	Oyx	Oyx	Radio Shack
MODEL				
SYSTEM CONFIGURATION	Intelligent Typewriter Level 3	Intelligent Typewriter Level 4	Intelligent Typewriter Level 5	TRS 80 Scriptit
Configuration	Keyboard/printer	Keyboard/printer	Keyboard/printer	Keyboard, VDT, diskette unit, printer
Memory Size	60K chars	60K chars	120K chars	64K Diskette
Storage Media	—	Single mini-diskette	Dual mini-diskette	
DISPLAY CAPACITY	60K chars	60K chars / diskette	60K chars / diskette	350K chars / diskette
DISPLAY STATION FEATURES	Optional 1" x 5" LED	Optional 1" x 5" LED	Optional 1" x 5" LED	12" diagonal CRT 8K
Screen Size & Type	1 line x 24 chars (24 chars total)	1 line x 24 chars (24 chars total)	24 lines x 80 chars (1920 chars total)	
Display Buffer Memory	5 x 7 dot matrix	5 x 7 dot matrix	5 x 7 dot matrix	
Format & Capacity	Fixed	Fixed	Fixed	Left, right, up, down, end/start/top of text
Character Generation	None	None	None	Standard
Cursor Positioning	Standard	Standard	Standard	Standard
Vertical Scrolling	None	None	None	Standard
Horizontal Scrolling	Standard	Standard	Standard	Standard
Page Scrolling	None	None	None	Standard
Display Highlighting	None	None	None	Standard
Character Size Control	None	None	None	Standard
Character Pitch Display	None	None	None	Standard
Character Spacing Display	None	None	None	None
Line Spacing Display	None	None	None	Code only
Line Justify Display	None	None	None	Code only
Underscore Display	Standard	Standard	Standard	None
Sub-Superscript Display	Codes only	Codes only	Codes only	None
Multi-Column Page Display	Codes only	Codes only	Codes only	None
Stand Form Recall/Display	None	None	None	Code only
Control Code Display	None	None	None	Code only
Format Statement Display	None	None	None	None
PRINTER STATIONS FEATURES	Standard	Standard	Standard	Standard
Printer Type & Speed	Oyx daisy wheel 30 cps	Oyx daisy wheel 30 cps	Oyx daisy wheel 30 cps	43 cps daisywheel
Printer Buffer Memory	One typing line	One typing line	One typing line	—
Character Pitch/Spacing	10/12 prop	10/12 prop	10/12 prop	10/12/proportional
Writing Line Width	13"	13"	13"	15.25"
Carriage Paper Width	15.25"	15.25"	15.25"	15.25"
First Line Forms Advance	Standard	Standard	Standard	156 chars
End-Of-Page Stop	Standard	Standard	Standard	—
Justified Printout	Standard	Standard	Standard	None
Sub-Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bi-directional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GEN FUNCTIONAL FEATURES	None	None	None	Standard*
Media Stored Format	None	None	Standard	Standard
Default Format Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog/Menu Prompt	None	None	None	Standard, prompting and menus
Forms Input	None	None	None	Standard
Control Character Printout	None	None	None	Standard, fixed
Printout Queuing	None	None	None	None
REVISION & STATUS REPORTING	None	None	None	Limited
System Security	None	None	None	Standard
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	
Auto Word Wraparound	Standard	Standard	Standard	
Auto Margin Adjust	Standard	Standard	Standard	
Temporary Margins	Standard	Standard	Standard	
Auto Decimal Tab	Standard	Standard	Standard	
Hyphenation	Standard	Standard	Standard	Standard, highlighting, user select Hot Zone
REMARKS & OTHER FEATURES				*Continuous form paper

Standalone Word Processing Systems

Oyx	Oyx	Oyx	Radio Shack	COMPANY
Intelligent Typewriter Level 3	Intelligent Typewriter Level 4	Intelligent Typewriter Level 5	TRS 80 Scriptit	MODEL
Standard	Standard	Standard	Standard	TEXT INPUT FEATURES (cont'd)
Standard	Standard	Standard	Standard	Auto Input Underline Auto Centering
Standard	Standard	Standard	Standard	Auto Line Spacing Auto Page Numbering Auto Headers/Footers Auto Pagination
None	None	Standard	Standard	TEXT EDIT & MERGE FEATURES
None	None	Standard	Standard	Document Assembly/Merge
None	None	Standard	Standard	Search Capability
Standard	Standard	Standard	Standard	Delete Capability
By character string	By character string	By character string	Page, page range	Global Search & Replace
C. W. L. S. Para. Page	C. W. L. S. Para. Page	C. W. L. S. Para. Page	Page, page range	Block Move/Copy
Standard	Standard	Next or all occurrences	Text string, page	Column Move/Delete
Standard	Standard	Standard	Standard	Auto Repagination
Standard	Standard	Standard	Standard	Auto Widow Adjust
None	None	None	None	Auto File Sort
None	None	None	None	Auto File Select
None	None	None	None	Auto Footnote Tie-In Term Dictionary/Glossary
Optional	Optional	Optional	Standard	COMMUNICATIONS Availability
Oyx-to-Oyx, Oyx-to-Vydec	Oyx-to-Oyx, Oyx-to-Vydec	Oyx-to-Oyx, Oyx-to-Vydec	Transmit only up to 19600 baud	Format & Speed
Asynch 1200 bps, Oyx-to-TTY	Asynch 1200 bps, Oyx-to-TTY	Asynch 1200 bps, Oyx-to-TTY	None	ARITHMETIC CAPABILITY
Asynch 110-300 bps	Asynch 110-300 bps	Asynch 110-300 bps	None	EDP CAPABILITY
None	None	None	None	Multiprogramming
None	None	None	Standard	Compilers
None	None	LED display, communications	BASIC, FORTRAN, COBOL	Applications Software
Mini-diskette drives	Second mini-diskette drive, LED display, communications	Second mini-diskette drive, LED display, communications	Accounting, file maintenance	PERIPHERALS
LED display, communications	communications	communications	Up to 3 disk drives, printers	
—	—	—	—	BACKGROUND INFORMATION
USA	USA	USA	—	First Delivery Date
—	—	—	—	Country of Manufacture
\$4,450*	\$5,950*	\$6,950*	\$6,158*	Installed Base Estimate
—	—	—	—	PRICING & TERMS
Available	Available	Available	Available	Purchase
\$384/yr	\$576/yr	\$780/yr	—	Rental
90 days	90 days	90 days	—	Lease
Upgradeable to all higher levels	Upgradeable to all higher levels	*Plus installation charge of \$60	*Includes TRS 80 printer, & software	Maintenance
*Plus installation charge of \$60	*Plus installation charge of \$60	*Plus installation charge of \$60	REMARKS & OTHER FEATURES	Warranty & Support

Standalone Word Processing Systems

COMPANY	Rothenberg Information Systems	Royal	Royal	Royal
MODEL	Rothenberg 1/25	SE 6000	SE 6000D	Royal 7000
SYSTEM CONFIGURATION Configuration	Keyboard/display, diskette console printer	Keyboard printer diskette unit	Keyboard/printer, diskette unit	Non-integral keyboard, tiltable CRT and dual drives, printer
Memory Size Storage Media	48K Dual diskette	4,000 characters Mini-diskette	4,000 characters Single mini-diskette	96K Dual mini-diskettes
Storage Capacity DISPLAY STATION FEATURES	250K char./diskette*	64K chars./diskette	64K chars./diskette	80K char./diskette
Screen Size & Type	12" diagonal CRT	Not Available	1" x 8½" vacuum fluorescent	12" diagonal CRT
Display Buffer Memory	1920 chars	Not Available	4,000 chars	6,500 chars
Format & Capacity	24 lines x 80 chars	Not Available	1 line x 40 characters (40 chars. total)	24 lines x 80 chars
Character Generation Cursor Positioning	9 x 12 dot matrix	Not Available	5 x 11 dot matrix	10 x 12 dot/12 x 14 frame
Vertical Scrolling	Left, right, up, down	Not Available	Left, right	L, R, up, down, home & amount keys
Horizontal Scrolling	Standard	Not Available	None	Standard
Page Scrolling	Standard	Not Available	Standard	Standard (to 255 chars.)
Display Highlighting	Standard	Not Available	None	Blinking, Reverse, Dim
Character Size Control	None	Not Available	None	None
Character Pitch Display	None	Not Available	None	None
Character Spacing Display	Standard	Not Available	None	None
Line Spacing Display	Standard	Not Available	None	None
Line Justify Display	Standard	Not Available	None	Standard
Underscore Display	Code only	Not Available	Standard	Standard
Sub Superscript Display	Standard	Not Available	Standard	Codes only
Multi-Column Page Display	Standard	Not Available	None	Standard
Stored Form Recall/Display	Standard	Not Available	Standard	Standard
Control Code Display	Standard	Not Available	Standard	Standard
Format Statement Display	Standard	Not Available	Standard	Standard
PRINTER STATIONS FEATURES				
Printer Type & Speed	Daisy wheel 45 cps**	Single element, 20 cps	Single element, 20 cps	Qume, 45 cps
Printer Buffer Memory	168 chars	40 characters	40 chars	488 characters
Character Pitch/Spacing	8 thru 13 & proportional	10, 12, 15 prop.	9/10, 12/15	13 2"
Writing Line Width	13 2"	13"	13"	15"
Carrage Paper Width	18"	15"	15"	15"
First Line Form Advance	Standard	Standard	Standard	Standard
End Of Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	None	None	Standard
Bi-directional Printout	Standard	None	None	None
Simultaneous Printout	Standard	None	None	Standard
GEN. FUNCTIONAL FEATURES				
Media Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Prompting & cueing	Standard
Machine Dialog/Menu Prompt	Standard	None	on display	Standard
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	Standard	None	None	Standard
Printout Queuing	Prints from diskette or keyboard	None	None	Standard*
Revision & Status Reporting	Standard	Standard	Standard	Standard**
System Security	None	None	None	None
TEXT INPUT FEATURES				
Auto Carriage Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	Uses optional hyphens	Manual, adjustable hot zone, 4-10 char. wide	Adjustable Hot Zone w/ auto scan	Adjustable Hot Zone w/ auto scan
REMARKS & OTHER FEATURES	*Optional 1,000K chars./diskette **Line printer available			*Two documents (total 70 pages) may be queued. **Automatically creates index and lists space available, date and time if system clock is set.

Standalone Word Processing Systems

Rothenberg Information Systems	Royal	Royal	Royal	COMPANY
Rothenberg 1/25	SE 6000	SE 6000D	Royal 7000	MODEL
Standard	Standard	Standard	Standard	TEXT INPUT FEATURES (cont'd)
Standard	Standard	Standard	Standard (line, para, page, remainder) 1 ½, ¾, 1, 1 ½, 2, etc	Auto Input Underline Auto Centering
Standard	Standard	Standard	Standard	Auto Line Spacing Auto Page Numbering Auto Headers/Footers
Standard	Standard	Standard	Standard	Auto Pagination
Standard	Standard	Standard	Standard	TEXT EDIT & MERGE FEATURES Document Assembly/Merge
Stored text assembled via text linking	Stored text assembled & merged w/ keyboarded text	Stored text assembled & merged w/ keyboarded text	Selective retrieval and stringing of commands for auto doc. assm. on screen or at prt w/ or w/o out var	Search Capability
By char. string or by skipping C. W. L. C. W. L.	By C. W. L. Para., Page character string C. W. L. P.	By C. W. L. Para., Page character string C. W. L. P.	By doc. page no., char string, cursor & atm. keys C. W. L. P. Page, Re-mander to end buff mem	Delete Capability
Standard	Standard, manual replace	Standard, manual replace or delete	Next or all occurrences, manual replace or delete	Global Search & Replace
Standard	None	None	Standard	Block Move/Copy
Optional	None	None	Standard	Column Move/Delete
Standard	Standard	Standard	Standard	Auto Repagination
None	Standard	Standard	None	Auto Widow Adjust
Standard	None	None	Standard	Auto File Sort
Standard	None	None	Standard	Auto File Select
None	None	None	None	Auto Footnote Tie-In Term Dictionary/Glossary
Standard	Standard	Standard	Standard	COMMUNICATIONS Availability Format & Speed
Standard ASCII 110 to 9600 bps	None	None	Optional TTY, 2741, 2780, 110-1920 baud	ARITHMETIC CAPABILITY EDP CAPABILITY Multiprogramming Compilers
—	None	None	Standard, algebraic	Applications Software
BASIC, FORTRAN IV, COBOL	None	None	None	PERIPHERALS
Payroll, legal billing, data base mgt., gen ledg., invent. Additional input stations sheet feeder, draft printer tape	None	Fully adjustable forms feed tractor	Math, Sort, Rec. Mgmt., all part of basic soft Intelligent copier, OCR, wide track prt., tractor feed, twin sheet feed, RS 232 devices	BACKGROUND INFORMATION First Delivery Date Country of Manufacture Installed Base Estimate PRICING & TERMS Purchase
July 1977 USA	March 1979 West Germany	July 1980 West Germany	90 day trial \$400/mo 24 mo. \$525/mo 3rd party	Rental
—	—	—	90 days, MSR support	Lease
\$11,995	\$5,475	\$6,675	\$11,900	Maintenance
—	3rd party	3rd party	90 days, key operator training, MSR support	Warranty & Support
—	3rd party	—	900/yr	Upgradable to shared resource cluster system
\$95/mo	\$548/yr	90 days, MSR support	90 days, key operator training, MSR support	REMARKS & OTHER FEATURES
30 days warranty 3 day N/C operator training	90 day warranty, MSR support			

Standalone Word Processing Systems

COMPANY	Savin	Savin	Shasta General Systems	Shasta General Systems
MODEL	900 Word Master	950 Veritext	Diablo 3000*	Diablo 3200*
SYSTEM CONFIGURATION Configuration	Typewriter, cassette console	Typewriter	Keyboard/CRT, console printer	Keyboard/CRT, console printer
Memory Size Storage Media	Cassette	3M tape cartridge	32K to 64K Dual diskette	32K to 64K Diskette and/or disk
Storage Capacity DISPLAY STATION FEATURES	50K or 100K chars./cass	61K chars./cartridge	620K to 1.3 Mb	620K to 20 Mb
Screen Size & Type	Not Available	Not Available	12" diagonal	12" diagonal
Display Buffer Memory Format & Capacity	Not Available	Not Available	6K chars	6K chars
Character Generation Cursor Positioning	Not Available	Not Available	24 lines x 80 chars	24 lines x 80 chars
Vertical Scrolling	Not Available	Not Available	7 x 9 dot matrix	7 x 9 dot matrix
Horizontal Scrolling	Not Available	Not Available	Up, down, left, right, home	Up, down, left, right, home
Page Scrolling	Not Available	Not Available	Standard	Standard
Display Highlighting	Not Available	Not Available	Standard	Standard
Character Size Control	Not Available	Not Available	Standard	Standard
Character Pitch Display	Not Available	Not Available	Standard	Standard
Character Spacing Display	Not Available	Not Available	None	None
Line Spacing Display	Not Available	Not Available	None	None
Line Justify Display	Not Available	Not Available	None	None
Underscore Display	Not Available	Not Available	None	None
Sub. Superscript Display	Not Available	Not Available	Standard	Codes & Reverse highlight
Multi Column Page Display	Not Available	Not Available	Codes only	Codes only
Stored Form Recall/Display	Not Available	Not Available	None	None
Control Code Display	Not Available	Not Available	Standard	Standard
Format Statement Display	Not Available	Not Available	Standard	Standard
PRINTER STATIONS FEATURES				
Printer Type & Speed	IBM Selectric 15 5 cps	Qume daisy 45 cps	Diablo daisy wheel, 45 cps	Diablo daisy wheel, 45 cps
Printer Buffer Memory	200 chars.	4096 chars	Up to 600K chars	Up to 600K chars
Character Pitch / Spacing	10/12	10/12	10/12/proportional	10/12/proportional
Writing Line Width	134	13 2"	13 2"	13 2"
Carrage Paper Width	15 5"	15"	15"	15"
First Line Forms Advance				
End Of Page Stop				
Justified Printout	Standard	Standard	Standard	Standard
Sub. Superscript Printout	None	Standard	Standard	Standard
Non-Adjust Printout	None	Standard	Standard	Standard
Bi-directional Printout	Standard	None	Standard	Standard
Simultaneous Printout	None	None	Standard	Standard
GEN FUNCTIONAL FEATURES				
Media Stored Format	None	Standard	Standard	Standard
Default Format Statement	None	Standard	Standard	Standard
Stored Multiple Formats	None	None	Standard	Standard
Machine Dialog / Menu Prompt	None	None	Standard	Standard
Forms Input	None	None	Standard	Standard
Control Character Printout	Standard	Standard	Line numbers only	Line numbers only
Printout Queuing	None	None	Standard	Standard
Revision & Status Reporting	None	None	Standard	Standard
System Security	None	None	None	None
TEXT INPUT FEATURES				
Auto Carriage Return	None	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	None	Left only	Standard	Standard
Auto Decimal Tab	None	Standard	Standard	Standard
Hyphenation	Manual, 4- or 8-char Hot Zone	Manual, adjustable Hot Zone	Ghost hyphens & adjustable Hot Zone	Ghost hyphens & adjustable Hot Zone
REMARKS & OTHER FEATURES			*Manufactured by Xerox and distributed in the US exclusively by Shasta General Systems	*Manufactured by Xerox and distributed in the US exclusively by Shasta General Systems

Standalone Word Processing Systems

COMPANY	Savin	Savin	Shasta General Systems	Shasta General Systems
MODEL	900 Word Master	950 Veritext	Diablo 3000*	Diablo 3200*
TEXT INPUT FEATURES (cont'd)	Standard Manual	Words or continuous Standard	Words or continuous Standard	Words or continuous Standard
Auto Input Underline	None	Standard	Standard	Standard
Auto Centering	None	Standard	Standard**	Standard**
Auto Line Spacing	None	Standard	Standard**	Standard**
Auto Page Numbering	None	Standard	Standard**	Standard**
Auto Headers/Footers	None	Standard	Standard	Standard
Auto Pagination	None	Standard	Standard	Standard
TEXT EDIT & MERGE FEATURES	Stored text merged w/ keyboarded text	Stored text assembled via linking	Stored text merged with boiler plate, keyboard text	Stored text merged with boiler plate, keyboard text
Document Assembly/Merge	By line numbers	By file & char. string	By page, line, up to 10 strings of up to 75 chars C. W. S. & cursor specified block	By page, line, up to 10 strings of up to 75 chars C. W. S. & cursor specified block
Search Capability	C. W. L.	C. W. S. P. Page	Auto or discretionary of up to 5 strings of 75 chars	Auto or discretionary of up to 5 strings of 75 chars
Delete Capability	None	Standard, manual replace	Standard	Standard
Global Search & Replace	None	None	Optional	Optional
Block Move/Copy	None	None	Standard	Standard
Column Move/Delete	None	None	Automatic	Automatic
Auto Repagination	None	Standard	Standard	Standard
Auto Widow Adjust	None	None	Optional	Optional
Auto File Sort	None	None	Optional	Optional
Auto File Select	None	None	Standard	Standard
Auto Footnote Tie-In	None	None	Standard**	Standard**
Term Dictionary/Glossary	None	None	Standard	Standard
COMMUNICATIONS Availability	None	Standard	Standard	Standard
Format & Speed	None	DP foreground/background Standard	Full data processing Standard	Full data processing Standard
ARITHMETIC CAPABILITY	None	Extensive library or user programmable	Extensive library or user programmable	Extensive library or user programmable
EDP CAPABILITY	None	200 cps matrix or 300 lpm printers, sheet feeder	200 cps matrix or 300 lpm printers, sheet feeder	200 cps matrix or 300 lpm printers, sheet feeder
Multiprogramming	None	Winchester Disk	Winchester Disk	Winchester Disk
Compilers	None	Standard	Standard	Standard
Applications Software	December 1972 USA	July 1975* USA	February 1980 USA	December 1976 USA
PERIPHERALS	\$2,995	\$6,395	\$15,950	\$19,950
BACKGROUND INFORMATION	Not available	\$260 (24-mo.)	—	—
First Delivery Date	\$79.37 (5-yr.)	\$169.47 (5-yr.)	—	—
Country of Manufacture	\$360/yr	\$75 (one-time installation fee)	—	—
Installed Base Estimate	90 days	90 days N/C operator training	—	—
PRICING & TERMS				
Purchase				
Rental				
Lease				
Maintenance				
Warranty & Support				
REMARKS & OTHER FEATURES	*Savin acquired the OCI Veritext in 1977	*Manufactured by Xerox & distributed in the US exclusively by Shasta General Systems	*Manufactured by Xerox & distributed in the US exclusively by Shasta General Systems	*Manufactured by Xerox & distributed in the US exclusively by Shasta General Systems
		**Available fourth qtr 1980	**Available fourth qtr 1980	**Available fourth qtr 1980

Standalone Word Processing Systems

COMPANY	Syntex	3M	3M	Universal Microcommunications
MODEL	Aquarius	4000 Information Processor*	System 84 Information Processor*	Universal Office Machine
SYSTEM CONFIGURATION Configuration	CRT workstation, dual diskette drives, and keyboard or interface to IBM Electronic 50/60/75	Keyboard/CRT, diskette console, printer	CRT display, keyboard, 1 to 4 diskette drives, printer	Keyboard/CRT, console, printer, MPU, hard disk
Memory Size Storage Media	96K Dual diskettes	16K Single or dual diskette	32K Diskette (1 to 4)	48K up to 30Mb Diskette/hard disk
Storage Capacity	320K chars/diskette	180K chars/diskette	250K chars/diskette	256K or 512K chars
DISPLAY STATION FEATURES Screen Size & Type	15" diagonal CRT 2000 chars	1440 chars	11" diagonal CRT	13" diagonal CRT 8K, 16K, or 32K
Display Buffer Memory Format & Capacity	25 lines x 80 chars (2000 chars total)	18 lines x 80 chars (1440 chars total)	24 line x 80 chars (1920 chars total)	48 lines x 80 chars (3840 chars expandable)
Character Generation Cursor Positioning	7 x 9 dot matrix	5 x 7 dot matrix	Dot matrix	8 x 14 dot matrix
Vertical Scrolling	Up, down, left, right, word, sentence, para	Forward only	Standard, forward only	Left, right, up, down, home
Horizontal Scrolling	Standard	Format line only	Standard	Standard, forward only
Page Scrolling	Standard	Forward only	Standard	Standard
Display Highlighting	Standard	None	Standard	Standard
Character Size Control	None	None	Standard	Standard
Character Pitch Display	Standard	None	Standard	Standard
Character Spacing Display	Standard	None	Standard	Standard
Line Spacing Display	Standard	None	Standard	Standard
Line Justify Display	Standard	None	Standard	Standard
Underscore Display	Standard	Code only	Standard	Standard
Sub/Superscript Display	Standard	Code only	Standard	Standard
Multi-Column Page Display	Standard	Standard	Standard (Level 3)	None
Stored Form Recall/Display	Optional*	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER STATIONS FEATURES				
Printer Type & Speed	Qume daisy 55 cps	Daisy wheel 30-45 cps	Qume 45 cps daisywheel	Nec thimble, 55 cps**
Printer Buffer Memory	2000 chars	—	—	256 chars
Character Pitch Spacing	10/12/15, proportional	10/12/15	10/12/15 prop (Level 3)	10/12
Writing Line Width	13.2"	13"	13"	15"
Carriage Paper Width	15.5"	15"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End Of Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GEN FUNCTIONAL FEATURES				
Media Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog/Menu Prompt	1 main menu, 12 sub-menus, prompts	Standard	Standard	Standard
Optional*	Optional*	Standard	Standard	None
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	None	Up to 30 documents	Standard, up to 30 documents	Standard
Printout Queuing	None	—	—	—
Revision & Status Reporting	Optional**	None	Optional	—
System Security	Standard	None	Standard	Password
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Left only	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	Standard	Manual	Manual	Standard
REMARKS & OTHER FEATURES	*Basic software pkg **Advanced function pkg	*3M has discontinued manufacture of the 4000, but continues service & support	*Available with three levels of word processing software	*512K chars/double density and 14.5 or 29Mb hard disk available **210 cps ink-jet spray printer also available with 2K buffer. Special order fonts for Japanese, Chinese, Korean, Arabic & Hebrew available

Standalone Word Processing Systems

Syntex	3M	3M	Universal Microcommunication	COMPANY
Aquarius	4000 Information Processor	System 84 Information Processor	Universal Office Machine	MODEL
Standard	Standard	Standard	Standard	TEXT INPUT FEATURES (cont'd)
Standard	Standard	Standard	Standard	Auto Input Underline Auto Centering
Standard	Standard	Standard	Standard	Auto Line Spacing Auto Page Numbering
Optional*	Standard	Standard	Standard	Auto Headers/Footers
Optional*	Standard	Standard	Standard	Auto Paginate
Standard	Standard	Standard	Standard	TEXT EDIT & MERGE FEATURES
Optional**	Stored text assembled & merged w/keyboarded text to form new document	Standard (Level 2) stored text assembled & merged w/keyboarded text, letter writing capability	Stored text assembled & merged w/keyboarded text	Document Assembly/Merge
By page, doc., char, string, and cursor pos. C. W. L. S. para., page, document	C. W. L. Para	C. W. L. Para	Doc. & page no., cursor control, & char string C. L. document, specified block, file, disk	Search Capability
Next: all occurrences of a char string, selective or automatic replacement	20 search & replace operations simultaneously	Standard, to 20 occurrences simultaneously	Standard	Delete Capability
Standard	Standard	Standard	Standard	Global Search & Replace
Standard	Standard	Standard	Standard	Block Move/Copy
Standard	Standard	Standard	None	Column Move/Delete
Standard	Standard	Standard	Standard	Auto Repagination
Standard	None	Standard (Level 3)	None	Auto Widow Adjust
Optional***	Optional	Standard (Level 2)	Standard	Auto File Sort
Optional***	Standard	Standard (Level 2)	Standard	Auto File Select
Optional*	None	None	Standard	Auto Footnote Tie-In
Optional*	None	None	None	Term Dictionary/Glossary
Standard	Optional	Optional	Standard	COMMUNICATIONS Availability
Standard	ASCII, Telex, TWX, Syntex to Syntex	Asynch 2741, TTY 110-1200 baud, Bisynch 2780, 24800 baud	2770, 2780, or ASCII-compt. or videotype-to-video type-to-video	Format & Speed
Optional***	None	None	Standard	ARITHMETIC CAPABILITY EDP CAPABILITY
None	None	Assembler	Optimal	Multiprogramming
None	—	—	FORTRAN, COBOL	Compilers
Communications, Shared Device Interface, Adv. Functions Software, Clustered Sys Connect	Mag card reader, computer tape interface RS-232 devices, photocomposer interface	Sheet feeder, peripheral switch (4 workstations to 1 peripheral)*	Gen I Purpose Acctg., Legal Billing, Reporting, Photocomp., hard disk, optical digitizer, digitizing tablet, paper tape punch and reader, telex	Applications Software
August 1980 USA	September 1975 USA	July 1979 USA	July 1977 USA	PERIPHERALS
\$7,590****	\$4,990 (single disk)	\$10,595**	Pricing available	BACKGROUND INFORMATION
\$5,990****	\$5,990 (dual diskette)	—	—	First Delivery Date
—	\$511*	\$410/mo. (1-year)**	—	Country of Manufacture
—	\$577*	—	3rd party	Installed Base Estimate
\$372 (2-yr)****	\$360 (5-yr)	—	Standard (swop-out, 3 hr component replace)	PURCHASE
\$294 (2-yr)****	\$407	—	60 days	Rental
\$80*****	\$95/mo	\$140/mo. **	—	Lease
\$40*****	\$106/mo.	—	Warranty & Support	Warranty & Support
90 days parts and labor with classroom training	6 months N/C operator training	—	—	REMARKS & OTHER FEATURES
*Adv Function Pkg	*Rental prices include maintenance	*Mag Card reader, computer tape interface, RS-232 devices, photocomp. interface	*Custom House Freight	
**Separate Software Pkg	—	**Cost for CRT, keyboard, printer, dual-diskette drives, Level 2 word processing software	Forwarding, Drawback, Medical pkg, Legal Collection, others avail. incl custom.	
***Basic Software Pkg	—	—	—	
****Aquarius workstation w/IBM Electronic Typewriter, VDT, and keyboard	—	—	—	
*****Aquarius workstation, VDT, and keyboard or interface to IBM 50 or 60 Electronic Typewriter	—	—	—	

Standalone Word Processing Systems

COMPANY	Vector Graphic	Vector Graphic	Vydec	Vydec
MODEL	MEMORITE 2	MEMORITE 3	1146	1200
SYSTEM CONFIGURATION				
Configuration	Keyboard/CRT, dual diskette console, printer	Keyboard/CRT, diskette console printer	Keyboard/CRT, diskette console printer	Keyboard/CRT, diskette console, printer
Memory Size	56K	56K	—	—
Storage Media	Dual diskette	Dual diskette	Diskette	Diskette
DISPLAY STATION FEATURES				
Screen Size & Type	315K chars /diskette	315K chars /diskette	225K chars /diskette	250K chars /diskette
Display Buffer Memory	12" diagonal CRT	12" diagonal CRT	8" x 10.5" CRT	8" x 10.5" CRT
Format & Capacity	1920 characters	1920 characters	4093 chars	4093 chars
Character Generation	24 lines x 80 chars	24 lines x 80 chars	64 lines x 96 chars (4093 chars total)*	64 lines x 96 chars (4093 chars total)*
Cursor Positioning	7 x 9 dot matrix	7 x 9 dot matrix	Stroke writing	Stroke writing
Vertical Scrolling	Left, right, up, down, home, beg & end of screen*	Left, right, up, down, home, beg & end of screen*	Left, right, up, down, home, reverse home	Left, right, up, down, home, reverse home
Horizontal Scrolling	Standard	Standard	Standard	Standard
Page Scrolling	None	None	None	None
Display Highlighting	Standard, fwd & bkwrd	Standard, fwd & bkwrd	Flash & Intensify	Flash & Intensify
Character Size Control	None	None	Optional	Optional
Character Pitch Display	None	None	None	None
Character Spacing Display	None	None	None	None
Line Spacing Display	None	None	Standard	Standard
Line Justify Display	None	None	None	None
Underscore Display	Codes only	Codes only	Standard	Standard
Sub-Superscript Display	Codes only	Codes only	Code only	Code only
Multi-Column Page Display	None	None	Manual	Manual
Stored Form Recall/Display	Optional	Optional	Standard	Standard
Control Code Display	Standard	Standard	Space & return	Space & return
Format Statement Display	Standard	Standard	—	—
PRINTER STATIONS FEATURES				
Printer Type & Speed	Qume daisy, 55 cps	Qume daisy, 55 cps	Daisy wheel 45 cps**	Daisy wheel 45 cps**
Printer Buffer Memory	None	None	4093 chars	4093 chars
Character Pitch / Spacing	1 to 20 chars./inch	Variable/proportional	10/12	10/12
Writing Line Width	12½"	12½"	13"	13"
Carrage Paper Width	15"	15"	14"	14"
First Line Forms Advance	Standard	Standard	Standard	Standard
End Of Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub-Superscript Printout	Standard	Standard	Standard	Standard
Non Adjust Printout	Standard	Standard	Standard	Standard
Bi-directional Printout	Standard	Standard	None	Standard
Simultaneous Printout	None	None	Standard	Standard
GEN. FUNCTIONAL FEATURES				
Media-Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog / Menu Prompt	Simple instruction format & cue	Simple instruction format & cue	Communications & Text	Communications, AutoPrint, Text Printer
Forms Input	None	Standard	Standard	Standard
Control Character Printout	None	None	Standard	Standard
Printout Queuing	None	None	None	Optional***
Revision & Status Reporting	Standard	Standard	None	None
System Security	None	Standard	None	None
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	None	None
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	2-step command	Standard
Temporary Margins	Standard	Standard	2-step command	Standard
Auto Decimal Tab	None	None	None	None
Hyphenation	—	—	Manual, 8-char Hot Zone	Manual, 8-char Hot Zone
REMARKS & OTHER FEATURES	*Beginning & end of text.	*Beginning & end of text.	*Optional 25 lines x 160 chars (4000 total). **With Text Printer	*Optional 25 lines x 160 chars (4000 total). **Optional wide document printer ***With AutoPrint & Text Printer

Standalone Word Processing Systems

COMPANY	Vector Graphic	Vector Graphic	Vydec	Vydec
MODEL	MEMORITE 2	MEMORITE 3	1146	1200
TEXT INPUT FEATURES (cont'd)				
Auto Input Underline	Standard	Standard	Standard	Standard
Auto Centering	Standard	Standard	Standard	Standard
Auto Line Spacing	Standard	Standard	Standard	Standard
Auto Page Numbering	Optional*	Optional*	Optional*	Optional*
Auto Headers/Footers	None	None	By page no. & cursor position	By page no. & cursor position
Auto Pagination	Optional*	Optional*	C, L	C, L
TEXT EDIT & MERGE FEATURES				
Document Assembly/Merge	Stored text assembled & merged w/keyboarded text, continuous document oriented*	Stored text assembled & merged w/keyboarded text to form new document	Stored text assembled by para. & merged w/keyboarded text to form new document	Stored text assembled by para. & merged w/keyboarded text to form new document
Search Capability	C, W, L, char string from cursor position*	C, W, S, partial/full line, para specified block*	By page no. & cursor position	By page no. & cursor position
Delete Capability	Automatically through entire document	Automatically through entire document	C, L	C, L
Global Search & Replace	None	None	None	None
Block Move/Copy	Standard*	Standard*	Standard, 1 page max.	Standard, 1 page max.
Column Move/Delete	None	None	Manual or via stored program	Manual or via stored program
Auto Repagination	Standard*	Standard*	Manual	Optional*
Auto Widow Adjust	None	None	None	Optional*
Auto File Sort	Standard	Standard	None	Optional*
Auto File Select	Standard	Standard	None	Optional*
Auto Footnote Tie-In	Available	Available	Optional	Optional
Term Dictionary/Glossary	Asynch ASCII, Memorite to Memorite	Asynch or Bisynch., Memorite to Memorite	Vydec internal at 1200 baud	Vydec internal at 1200 baud, 2780, 3780, 2741, TTY
COMMUNICATIONS	None	None	None	None
Availability	Standard**	Standard	Optional	Optional
Format & Speed	Basic FORTRAN, COBOL, PASCAL	Basic FORTRAN, COBOL, PASCAL	Vydec internal at 1200 baud	Vydec internal at 1200 baud, 2780, 3780, 2741
ARITHMETIC CAPABILITY	Mailing List, Data Mgmt.	Mailing List, Data Mgmt.	Optional	Optional
EDP CAPABILITY	Gen Purpose Acctng	Gen Purpose Acctng	Vydec internal at 1200 baud	Vydec internal at 1200 baud
Multiprogramming	Additional Disk storage, Auto Sheet Feeder	Additional Disk storage, Auto Sheet Feeder	2780, 3780, 2741, TTY	2780, 3780, 2741, TTY
Compilers	Photocomposition interface, paper tape punch, wide doc printer, RS-232 devices	Photocomposition interface, paper tape punch, wide doc printer, RS-232 devices	Comp. interface, mag card conv. paper tape punch, OCR, wide doc printer, RS-232 devices**	Comp. interface, mag card conv. paper tape punch, OCR, wide doc printer, RS-232 devices**
APPLICATIONS SOFTWARE	December 1978 USA 3,000	November 1980 USA	December 1978 USA 3,000	November 1980 USA
PERIPHERALS	\$8,400***	\$8,400**	\$7,500	\$12,200
BACKGROUND INFORMATION	—	—	\$415 (24-mo.)	\$505 (12-mo.)
First Delivery Date	—	—	3rd party	\$445 (24-mo.)
Country of Manufacture	—	—	3rd party	3rd party
Installed Base Estimate	October 1973 USA	June 1976 USA	—	—
PRICING & TERMS	—	—	60 days	60 days
Purchase	Dealer maintenance	Dealer Maintenance	\$720	\$840
Rental	90 day warranty	90 day warranty	60 days	60 days
Lease	—	—	—	—
Maintenance	—	—	—	—
Warranty & Support	—	—	—	—
REMARKS & OTHER FEATURES	*High Speed Search due to memory storage of 20 pages at one time	Spelling Correction Dictionary	*With AutoPrint & Text Printer	*With AutoPrint & Text Printer
	**Within word processing	**High Speed search due to memory storage of 20 pages at one time	**Standalone Text Station & Text Printer available	**Standalone Text Station & Text Printer available

Standalone Word Processing Systems

COMPANY	Vydec	Vydec	Vydec	Vydec
MODEL	1400	1800	2000	4200
SYSTEM CONFIGURATION				
Configuration	Keyboard/CRT, diskette console, printer	Keyboard/CRT, diskette console, printer	Integral CRT/keyboard/printer	CRT/keyboard, dual mini-diskette drives, printer
Memory Size	24K+ editing firmware	24K+ editing firmware	64K	64K + 16K (comm)
Storage Media	Dual diskette	Dual diskette	Single mini-diskette	Dual mini-diskettes
Storage Capacity	250K chars /diskette	250 chars /diskette	150K chars /diskette	150K chars /diskette
DISPLAY STATION FEATURES				
Screen Size & Type	8" x 10.5" CRT	8" x 10.5" CRT	8" CRT	19" CRT*
Display Buffer Memory	4093 chars	4093	16K	16K
Format & Capacity	64 lines x 96 chars (4093 chars total)*	64 lines x 96 chars (4093 chars total)*	12 lines x 80 chars	69 lines x 256 chars
Character Generation	Stroke writing	Stroke writing	Vector	Vector
Cursor Positioning	Left, right, up, down, home, reverse home	Left, right, up, down, home, reverse home	Standard	Standard
Vertical Scrolling	Standard	Standard	Standard, to 256 chars	Standard
Horizontal Scrolling	None	None	Intensify	Intensify
Page Scrolling	Standard	Standard	Standard	Standard
Display Highlighting	Flash & Intensity	Flash & Intensity	Optional	Optional
Character Size Control	Optional	None	None	Standard
Character Pitch Display	None	None	None	Standard
Character Spacing Display	None	None	None	Standard
Line Spacing Display	Standard	Standard	Standard	Standard
Line Justify Display	None	None	Standard	Standard
Underline Display	Standard	Standard	Standard	Standard
Sub-Superscript Display	Code only	Code only	Standard	Standard
Multi-Column Page Display	Manual	Manual	Standard	Standard
Stored Form Recall/ Display	Standard	Standard	Standard	Standard
Control Code Display	Space & return	Space & return	Standard	Standard
Format Statement Display	—	—	Standard	Standard
PRINTER STATIONS FEATURES				
Printer Type & Speed	Daisy wheel 45 cps**	Daisy wheel 45 cps**	Vydec daisywheel, 30 cps 4K	Vydec daisywheel, 45 cps 4K
Printer Buffer Memory	4093 chars	4093 chars	8, 10, 12, 15, prop	8, 10, 12, 15, prop
Character Pitch/ Spacing	10/12	10/12	13.2"	13.2" or 22"
Writing Line Width	13"	13"	15"	15" or 26"
Carrage Paper Width	14"	14"	—	—
First Line Forms Advance	Standard	Standard	Standard	Standard
End Of Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub-Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bi-directional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GEN FUNCTIONAL FEATURES				
Media-Stored Format	Standard	Standard	Standard	Standard
Default Form/ Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog/ Menu Prompt	Communications, AutoPrint, Text Printer	Communications & software packages	Standard	Standard
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	None	None	Standard	Standard
Printout Queuing	Optional***	Optional***	Standard, by document	Standard, by document
Revision & Status Reporting	None	None	Standard	Standard
System Security	None	None	Standard	Standard
TEXT INPUT FEATURES				
Auto Carriage Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	Manual, 8-char Hot Zone	Manual, 8-char Hot Zone	Semi-automatic, adjustable hot zone	Semi-automatic, adjustable hot zone
REMARKS & OTHER FEATURES	*Optional 25 lines x 160 chars (4000 total) **Optional wide document printer ***With AutoPrint & Text Printer	*Optional 25 lines x 160 chars (4000 total) **Optional wide document printer ***With Text Printer	*Wide screen may be used to show extra wide pages, may be split to show two consecutive pages of a document, or pages of different documents.	

Standalone Word Processing Systems

COMPANY	Vydec	Vydec	Vydec	Vydec
MODEL	1400	1800	2000	4200
TEXT INPUT FEATURES (cont'd)				
Auto Input Underline	Standard	Standard	Standard	Standard
Auto Centering	None	None	Standard	Standard
Auto Line Spacing	Standard	Standard	Standard	Standard
Auto Page Numbering	Optional*	Standard	Standard	Standard
Auto Headers/ Footers	Optional*	Standard	Standard	Standard
Auto Pagination	Optional*	Standard	Standard	Standard
TEXT EDIT & MERGE FEATURES				
Document Assembly/ Merge	Stored text assembled by para & merged w/ keyboarded text to form new document, by page no. & cursor position C, L	Stored text assembled by para & merged w/ keyboarded text to form new document, by page no. cursor or record key C, L	Stored text assembled & merged w/ keyboarded text, or assembled in background, By page no., paragraph, document, or char string C, W, L, Para, Page, Block, Document	Stored text assembled & merged w/ keyboarded text
Search Capability	None	Std. up to 50 text strings	Block, Document	Standard
Delete Capability	—	—	Standard	Standard
Global Search & Replace	—	—	Standard	Standard
Block Move/ Copy	Standard, 1 page max	Standard, 1 page max	Standard	Standard
Column Move/ Delete	Manual or via stored program	Manual or through decimal alignment	Standard	Standard
Auto Repagination	Optional*	Standard	Standard	Standard
Auto Widow Adjust	Optional*	Optional	Optional	Optional
Auto File Sort	Optional*	Standard	Optional	Optional
Auto Footnote Tie-In	None	None	Standard	Standard
Term Dictionary/ Glossary	None	None	Standard	Standard
COMMUNICATIONS				
Availability	Optional	Optional	Optional	Optional
Format & Speed	Vydec internal at 1200 baud, 2780, 3780, 2741 baud, TTY	Vydec internal at 1200 bauds, 2780, 3780, 2741, TTY	Int. modem, 300 bps, or ext. modem, 1200 bps, ASCII TTY, Telex, TWX*	Int. modem, 300 bps, or ext. modem, 1200 bps, ASCII TTY, 2780, 3780
ARITHMETIC CAPABILITY	—	Standard	Optional	Optional
EDP CAPABILITY	—	—	—	—
Multiprogramming	—	—	—	—
Compilers	—	—	—	—
APPLICATIONS SOFTWARE				
Wide Document Printer	Comp. interface, mag card conv., paper tape punch, OCR, wide doc. printer, RS 232 devices**	Comp. interface, mag card conv., paper tape punch, OCR, wide doc. printer, RS 232 devices**	None	Wide Document Printer
PERIPHERALS	June 1976 USA	March 1980 USA	May 1980 USA	September 1980 USA
Background Information	\$12,400	\$13,700	\$9,990	\$14,900
First Delivery Date	\$640 (12-mo.)	\$615 (12-mo.)	\$450 (12-mo.)	\$645 (12-mo.)
Country of Manufacture	\$485 (24-mo.)	\$553 (24-mo.)	\$412 (24-mo.)	\$590 (24-mo.)
Installed Base Estimate	3rd party	3rd party	Available	Available
Pricing & Terms	—	—	—	—
Purchase	—	—	—	—
Rental	60 days	60 days	60 days	60 days
Lease	—	—	—	—
Maintenance	—	—	—	—
Warranty & Support	—	—	—	—
REMARKS & OTHER FEATURES	*With AutoPrint & Text Printer	*Standalone Text Station & Text Printer available	*Choice of one	

Standalone Word Processing Systems

COMPANY	Vydec	Wang	Willow Associates	Willow Associates
MODEL	4400	WPS5	MT-100*	MC-100*
SYSTEM CONFIGURATION				
Configuration	CRT keyboard; dual diskette drives, printer	Keyboard/CRT/diskette console, printer	Typewriter, tape console	Typewriter, card console
Memory Size	64K + 16K (comm.)	48K		
Storage Media	Dual diskette	Dual diskette	Cassette	Magnetic card
Storage Capacity	250K chars./diskette	300K chars./diskette	80K chars./diskette	10K chars./card
DISPLAY STATION FEATURES				
Screen Size & Type	19" CRT*	12" diagonal CRT	Not Available	Not Available
Display Buffer Memory	16K		Not Available	Not Available
Format & Capacity	69 lines x 256 chars.	24 lines x 80 chars (1920 chars. total)	Not Available	Not Available
Character Generation	Vector	8 x 8 dot matrix	Not Available	Not Available
Cursor Positioning	Left, right, up, down, home	Left, right, up, down	Not Available	Not Available
Vertical Scrolling	Standard	Standard	Not Available	Not Available
Horizontal Scrolling	Standard to 256 chars	Standard*	Not Available	Not Available
Page Scrolling	Standard	Standard	Not Available	Not Available
Display Highlighting	Intensify	Standard	Not Available	Not Available
Character Size Control	Standard	None	Not Available	Not Available
Character Pitch Display	Standard	None	Not Available	Not Available
Character Spacing Display	Standard	None	Not Available	Not Available
Line Spacing Display	Standard	None	Not Available	Not Available
Line Justify Display	Standard	None	Not Available	Not Available
Underscore Display	Standard	Standard	Not Available	Not Available
Sub-Superscript Display	Standard	Code only	Not Available	Not Available
Multi-Column Page Display	Standard	Manual	Not Available	Not Available
Stored Form Recall/Display	Standard	Standard	Not Available	Not Available
Control Code Display	Standard	Standard	Not Available	Not Available
Format Statement Display	Standard	Standard	Not Available	Not Available
PRINTER STATIONS FEATURES				
Printer Type & Speed	Vydec daisywheel, 45 cps 4K	Wang daisy wheelprinter	IBM Selectric 15 5 cps	IBM Selectric 15 5 cps
Printer Buffer Memory				
Character Pitch / Spacing	8, 10, 12, 15, prop	10, 12, prop *	10/12	10/12
Writing Line Width	13.2" or 22"	13.2"	13"	13"
Carriage Paper Width	15" or 26"	15"	15.5"	15.5"
First Line Forms Advance	Standard	Standard	None	None
End Of Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	None	None
Sub-Superscript Printout	Standard	Standard	Standard	None
Non-Adjust Printout	Standard	Standard	None	None
Bi-directional Printout	Standard	Standard	None	None
Simultaneous Printout	Standard	Standard	None	None
GEN FUNCTIONAL FEATURES				
Media Stored Format	Standard	Standard	None	None
Default Format Statement	Standard	Standard	None	None
Stored Multiple Formats	Standard	Standard	None	None
Machine Dialog/Menu Prompt	Standard	Start-Up Summary, Playout & Spec menus via Glossary*	Standard	None
Forms Input	Standard	Standard	None	None
Control Character Printout	None	Standard	Standard	Standard
Printout Queuing	Standard, by document	Document Index & list	None	None
Revision & Status Reporting	Standard	Document summary gives revision status	None	None
System Security	Standard	Document password (Model 3 only)	—	—
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	None	None
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	Standard	Standard	None	None
Hyphenation	Semi-automatic, adjustable hot zone	Manual, adjustable Hot Zone	Manual, 7-char Hot Zone	Manual, 7-char Hot Zone
REMARKS & OTHER FEATURES	*Wide screen may be used to show extra wide pages; may be split to show two consecutive pages of a document, or pages of different documents.	Models II & III	*Formerly marketed by Sperry Univac	*Formerly marketed by Sperry Univac

Standalone Word Processing Systems

Vydec	Wang	Willow Associates	Willow Associates	COMPANY
4400	WPS 5	MT-100	MC-100	MODEL
Standard	Standard	Standard	Standard	TEXT INPUT FEATURES (cont'd)
Standard	Standard	None	None	Auto Input Underline
Standard	Standard	None	None	Auto Centering
Standard	Standard	None	None	Auto Line Spacing
Standard	Standard	None	None	Auto Page Numbering
Standard	Standard	None	None	Auto Headers/Footers
Standard	Standard	None	None	Auto Pagination
Stored text assembled & merged w/keyboarded text	Assemble stored paragraphs by no.*	Stored text merged w/keyboarded text	Stored text merged w/keyboarded text	TEXT EDIT & MERGE FEATURES
By page no., paragraph, document, or char string C, W, L, Para, Page, Block, Document Standard	By char, string C, W, L, S, P	By stop codes C, W, L	By stop codes C, W, L	Search Capability
Standard	Standard*	None	None	Delete Capability
Standard	Standard*	None	None	Global Search & Replace
Standard	Scan before printout; operator controlled decision	Next occurrence, manual deletion or replacement	Next occurrence, manual deletion or replacement	Block Move / Copy
Standard	None	None	None	Column Move / Delete
Optional	Standard*	None	None	Auto Repagination
Optional	Standard*	None	None	Auto Widow Adjust
Optional	Standard*	None	None	Auto File Sort
Standard	Standard*	None	None	Auto File Select
Optional	Standard*	None	None	Auto Footnote Tie-In
Optional	Standard*	None	None	Term Dictionary / Glossary
Optional	Synchronous EBCDIC, IBM 2741-compat at 14.8 cps	Optional Synchronous EBCDIC, IBM 2741-compat at 14.8 cps	Optional Synchronous EBCDIC, IBM 2741-compat at 14.8 cps	COMMUNICATIONS
Standard	Standard	Standard	Standard	Availability
None	None	None	None	Format & Speed
None	None	None	None	ARITHMETIC CAPABILITY
None	None	None	None	EDP CAPABILITY
None	None	None	None	Multiprogramming
None	None	None	None	Compilers
Wide Document Printer	Twin sheet feeder, wide carriage printer, shared printer interface	Computer tape, photo-composition interfaces	Computer tape interface	APPLICATIONS SOFTWARE
September 1980 USA	—	1972* USA	1972* USA	PERIPHERALS
\$15,500	\$5,900 (Model I); \$7,900 Model II; \$8,400 (Mod. III) \$278 (Model I); \$372 (Model II); \$466 (Model III) 3rd party	\$3,500	\$3,500	BACKGROUND INFORMATION
\$970 (12 mo.) \$613 (24 mo.) Available	—	\$80**	\$80**	First Delivery Date
\$1,140/year 60 days	\$40/mo 90 days	—	—	Country of Manufacture
	\$52/mo. from Univac	\$52/mo. from Univac	—	Installed Base Estimate
		—	—	PRICING & TERMS
		—	—	Purchase
		—	—	Rental
		—	—	Lease
		—	—	Maintenance
		—	—	Warranty & Support
				REMARKS & OTHER FEATURES
				*Sperry sold remaining inventory to Willow in 1977
				**60% rental credit available from Willow; dealer rates may differ
				*Sperry sold remaining inventory to Willow in 1977
				**60% rental credit available from Willow; dealer rates may differ

Standalone Word Processing Systems

COMPANY	Willow Associates	Willow Associates	Wordplex	Wordplex
MODEL	MT-200*	MC 200*	Wordplex 1	Wordplex 2
SYSTEM CONFIGURATION				
Configuration	Typewriter, tape console	Typewriter, card console	Keyboard/CRT/diskette console, printer	Keyboard/CRT/minidiskettes, printer
Memory Size	—	—	48K	48K
Storage Media	Dual cassette	Dual magnetic card	Dual diskette	Dual diskette
Storage Capacity	80K chars./cassette	10K chars./card	250K chars./diskette	161K chars./diskette
DISPLAY STATION FEATURES				
Screen Size & Type	Not Available	Not Available	12" diagonal CRT	12" diagonal CRT
Display Buffer Memory	Not Available	Not Available	10K chars.	10K chars.
Format & Capacity	Not Available	Not Available	24 lines x 80 chars. (1920 chars. total)	24 lines x 80 chars. (1920 chars. total)
Character Generation	Not Available	Not Available	7 x 11 dot matrix	7 x 11 dot matrix
Cursor Positioning	Not Available	Not Available	Left, right, up, down, home	Left, right, up, down, home
Vertical Scrolling	Not Available	Not Available	Standard	Standard
Horizontal Scrolling	Not Available	Not Available	Up to 128-char line	Up to 128-char line
Page Scrolling	Not Available	Not Available	Standard	Standard
Display Highlighting	Not Available	Not Available	None	None
Character Sizes Control	Not Available	Not Available	None	None
Character Pitch Display	Not Available	Not Available	None	None
Character Spacing Display	Not Available	Not Available	None	None
Line Spacing Display	Not Available	Not Available	Standard	Standard
Line Justify Display	Not Available	Not Available	Standard	Standard
Underscore Display	Not Available	Not Available	Standard	Standard
Sub-Superscript Display	Not Available	Not Available	Code only	Code only
Multi-Column Page Display	Not Available	Not Available	Standard	Standard
Stored Form Recall Display	Not Available	Not Available	Standard	Standard
Control Code Display	Not Available	Not Available	Standard	Standard
Format Statement Display	Not Available	Not Available	Standard	Standard
PRINTER STATIONS FEATURES				
Printer Type & Speed	IBM Selectric 15 5 cps	IBM Selectric 15 5 cps	Daisy wheel 45 or 55 cps 8K	45/55 cps daisy wheel 8K
Printer Buffer Memory	—	—	10/12	10/12
Character Pitch/Spacing	10-12	10-12	13"	13"
Writing Line Width	13"	13"	15 5"	15"
Carrage Paper Width	15 5"	15 5"	15"	15"
First Line Forms Advance	None	None	Standard	Standard
End Of Page Stop	Standard	Standard	Standard	Standard
Justified Printout	None	None	Standard	Standard
Sub-Superscript Printout	None	None	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bi-directional Printout	None	None	Standard	Standard
Simultaneous Printout	None	None	Standard	Standard
GEN FUNCTIONAL FEATURES				
Media Stored Format	None	None	Standard	Standard
Default Format Statement	None	None	Standard	Standard
Stored Multiple Formats	None	None	Standard	Standard
Machine Dialog/Menu Prompt	None	None	Cue before deletion of document	Cue before deletion of document
Forms Input	—	—	—	—
Control Character Printout	Standard	Standard	Standard	Standard
Printout Queuing	None	Standard	Standard	Standard
Revision & Status Reporting	None	None	Standard	Standard
System Security	—	—	—	—
TEXT INPUT FEATURES				
Auto Carriage Return	None	None	Standard	Standard
Auto Word Wraparound	None	None	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	None	None	Standard	Standard
Hyphenation	Manual, 7-char Hot Zone	Manual, 7-char Hot Zone	Manual, adjustable Hot Zone	Manual, adjustable Hot Zone
REMARKS & OTHER FEATURES	*Formerly marketed by Sperry Univac	*Formerly marketed by Sperry Univac		

Standalone Word Processing Systems

Willow Associates	Willow Associates	Wordplex	Wordplex	COMPANY
MT-200	MC 200	Wordplex 1	Wordplex 2	MODEL
Standard	Standard	Standard	Standard	TEXT INPUT FEATURES (cont'd)
Standard	Standard	Standard	Standard	Auto Line Spacing
None	None	Standard	Standard	Auto Page Numbering
None	None	Standard	Standard	Auto Headers/Footers
None	None	Standard	Standard	Auto Pagination
None	None	Standard	Standard	TEXT EDIT & MERGE FEATURES
Stored text assembled & merged w/ keyboarded text	Text from each card assembled & merged w/ keyboarded text	Stored text assembled & merged w/ keyboarded text	Stored text assembled & merged w/ keyboarded text	Document Assembly/Merge
By stop codes	By stop codes	By doc name, page no & cursor position	By doc name, page no & cursor position	Search Capability
C. W. L	C. W. L	C. W. L. S. P	C. W. L. S. P	Delete Capability
Next occurrence, manual deletion or replacement	Next occurrence, manual deletion or replacement	Standard, search only w/in page, manual replacement	Standard, search only w/in page, manual replacement	Global Search & Replace
None	None	Standard	Standard	Block Move/Copy
None	None	Standard	Standard	Column Move/Delete
None	None	Standard	Standard	Auto Repagination
None	None	None	None	Auto Widow Adjust
None	None	Standard	Standard	Auto File Sort
None	None	Standard	Standard	Auto Fit Select
None	None	None	None	Auto Footnote Tie-In
None	None	None	None	Term Dictionary/Glossary
Optional	Optional	Standard	Standard	COMMUNICATIONS Availability
Synchronous EBCDIC, IBM 2741-compat at 14.8 cps	Synchronous EBCDIC, IBM 2741-compat at 14.8 cps	IBM 2741-compat at 134 baud, IBM 2780 Ethernet compat at up to 9600 baud	IBM 2741-compat at 134 baud, IBM 2780 Ethernet compat at up to 9600 baud	Format & Speed
None	None	Optional	Optional	EDP CAPABILITY
None	None	None	None	Multiprogramming
None	None	None	None	Compilers
Computer tape, photo-composition interfaces	Computer tape interface	OCR RS-232 devices	OCR RS-232 devices	APPLICATIONS Software
1972* USA	1972* USA	August 1976 USA	August 1978 USA	PERIPHERALS
\$4,500	\$4,000	Available upon request	Available upon request	BACKGROUND INFORMATION
\$150**	\$150**	—	—	First Delivery Date
—	—	Various lease plans available	Available	Country of Manufacture
\$62/mo. from Univac	\$62/mo. from Univac	—	—	Installed Base Estimate
—	—	—	—	PRICING & TERMS
—	—	—	—	Purchase
—	—	—	—	Rental
—	—	—	—	Lease
—	—	—	—	Maintenance
—	—	—	—	Warranty & Support
*Sperry sold remaining inventory to Willow in 1977	*Sperry sold remaining inventory to Willow in 1977	Can be used as editing terminal in Wordplex 7 or Wordplex 4 shared-logic configurations	Can be used as editing terminal in Wordplex 7 or Wordplex 4 shared-logic configurations	REMARKS & OTHER FEATURES
**60% rental credit avail. from Willow, dealer rates may differ	**60% rental credit avail. from Willow, dealer rates may differ	—	—	—

Standalone Word Processing Systems

COMPANY	Xerox	Xerox	Xerox	Xerox
MODEL	800 ETS, System 124	800 ETS, System 126	800 ETS System 122 & 800 CETS System 152	800 ETS System 128 & 800 CETS System 151
SYSTEM CONFIGURATION	Typewriter, single card console	Typewriter, dual card console	Typewriter, single tape console	Typewriter, dual tape console
Memory Size	—	—	—	—
Storage Media	Single magnetic card	Dual magnetic card	Single cassette tape	Dual cassette tape
Storage Capacity	10,800 chars./card	10,800 chars./card	17K or 35K chars./cass.	17K or 35K chars./cass.
DISPLAY STATION FEATURES	Not Available	Not Available	Not Available	Not Available
Screen Size & Type	Not Available	Not Available	Not Available	Not Available
Display Buffer Memory Format & Capacity	Not Available	Not Available	Not Available	Not Available
Character Generation Cursor Positioning	Not Available	Not Available	Not Available	Not Available
Vertical Scrolling	Not Available	Not Available	Not Available	Not Available
Horizontal Scrolling	Not Available	Not Available	Not Available	Not Available
Page Scrolling	Not Available	Not Available	Not Available	Not Available
Display Highlighting	Not Available	Not Available	Not Available	Not Available
Character Size Control	Not Available	Not Available	Not Available	Not Available
Character Pitch Display	Not Available	Not Available	Not Available	Not Available
Character Spacing Display	Not Available	Not Available	Not Available	Not Available
Line Spacing Display	Not Available	Not Available	Not Available	Not Available
Line Justify Display	Not Available	Not Available	Not Available	Not Available
Underscore Display	Not Available	Not Available	Not Available	Not Available
Sub-Superscript Display	Not Available	Not Available	Not Available	Not Available
Multi-Column Page Display	Not Available	Not Available	Not Available	Not Available
Stored Form Recall / Display	Not Available	Not Available	Not Available	Not Available
Control Code Display	Not Available	Not Available	Not Available	Not Available
Format Statement Display	Not Available	Not Available	Not Available	Not Available
PRINTER STATIONS FEATURES				
Printer Type & Speed	Daisy wheel 30 cps			
Printer Buffer Memory	256 chars. (1 line)			
Character Pitch / Spacing	10'/12' proportional	10'/12' proportional	10'/12' proportional	10'/12' proportional
Writing Line Width	13"	13"	13"	13"
Carrage Paper Width	15"	15"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End Of Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub-Superscript Printout	Standard	Standard	Standard	Standard
Non Adjust Printout	Standard	Standard	Standard	Standard
Bi-directional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GEN FUNCTIONAL FEATURES				
Media Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Margins only	Margins only	Margins only	Margins only
Stored Multiple Formats	None	None	None	None
Machine Dialog / Menu Prompt	None	None	None	None
Forms Input	None	None	None	None
Control Character Printout	Standard	Standard	Standard	Standard
Printout Queuing	None	None	None	None
Revision & Status Reporting	None	None	None	None
System Security	None	None	None	None
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	None	None	None	None
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	None	None	None	None
Auto Decimal Tab Hyphenation	Standard	Standard	Standard	Standard
Manual, adjustable Hot Zone	Manual, adjustable Hot Zone			
REMARKS & OTHER FEATURES	Supplies include media, printwheels, ribbons, special platen, tractor feed, noise suppressors, other	Supplies include media, printwheels, ribbons, special platen, tractor feed, noise suppressors, other	Supplies include media, printwheels, ribbons, special platen, tractor feed, noise suppressors, other	Supplies include media, printwheels, ribbons, special platen, tractor feed, noise suppressors, other

Standalone Word Processing Systems

Xerox	Xerox	Xerox	Xerox	COMPANY
800 ETS System 124	800 ETS System 126	800 ETS System 122 & 800 CETS System 152	800 ETS System 128 & 800 CETS System 151	MODEL
Standard	Standard	Standard	Standard	TEXT INPUT FEATURES (cont'd)
Between margins or tab settings	Between margins or tab settings	Between margins or tab settings	Between margins or tab settings	Auto Input Underline
None	None	None	None	Auto Centring
None	None	None	None	Auto Line Spacing
Text from card selected by line no. & merged w/ keyboarded text to form new document	Stored text assembled & merged w/ keyboarded text to form new document	Stored text merged w/ keyboarded text to form new document	Stored text assembled & merged w/ keyboarded text to form new document	Auto Page Numbering
By line no	By line no	By reference no. & char string	By reference no. & char string	Auto Headers/Footers
C. W. L. P	C. W. L. P	C. W. L. P	C. W. L. P	Auto Pagination
None	None	Standard, non-global & manual replacement	Standard, non-global & manual replacement	TEXT EDIT & MERGE FEATURES Document Assembly/Merge
None	None	None	Standard	Search Capability
None	None	None	None	Delete Capability
None	None	None	None	Global Search & Replace
None	None	None	None	Block Move/Copy
None	None	None	None	Column Move/Delete
None	None	None	None	Auto Repagination
None	None	None	None	Auto Widow Adjust
None	None	None	None	Auto File Sort
None	None	None	None	Auto File Select
None	None	Standard (800C)	Standard (800C)	Auto Footnote Tie-In
None	None	Xerox WP, ASCII, IBM CMC & 2741-compatible	Xerox WP, ASCII, IBM CMC & 2741-compatible	Term Dictionary/Glossary
None	None	None	None	COMMUNICATIONS Availability
None	None	None	None	Format & Speed
None	None	None	None	ARITHMETIC CAPABILITY EDP CAPABILITY Multiprogramming Compilers
None	None	None	None	Applications Software
October 1974	October 1974	October 1974*	October 1974*	PERIPHERALS
USA	USA	USA	USA	BACKGROUND INFORMATION
\$4,500	\$5,500	\$4,500 (800)	\$5,500 (800)	First Delivery Date
\$245 (6-mo.)	\$345 (6-mo.)	\$6,100 (800C)	\$6,600 (800C)	Country of Manufacture
\$220 (2-yr.)	\$305 (2-yr.)	\$275 (6-mo.)	\$355 (6 mo.)	Installed Base Estimate
\$630	\$815	\$320 (6-mo.)	\$445 (6 mo.)	PURCHASING TERMS Purchase
90 days	90 days	\$245 (2-yr.)	\$315 (2 yr.)	Rental
		\$320 (2-yr.)	\$395 (2 yr.)	Lease
		\$675	\$740	Maintenance
		\$630	\$815	Warranty & Support
		90 days	90 days	
Media conversion for IBM cards to tape or card free of charge	Media conversion for IBM cards to tape or card free of charge	*800 CETS delivered March 1976	*800 CETS delivered March 1976	REMARKS & OTHER FEATURES
		Media conversion for IBM cards to tape or card free of charge	Media conversion for IBM cards to tape or card free of charge	

Standalone Word Processing Systems

COMPANY	Xerox	Xerox	Xerox	Xerox
MODEL	850 Display Typewriter	850 Page Display	860	860 Partial Page Display
SYSTEM CONFIGURATION				
Configuration	Keyboard; printer, diskette console	CRT, keyboard, printer, diskette console	Controller, keyboard, display, printer	Controller, keyboard, display, printer
Memory Size	8K	16K	96K (expandable to 128K)	96K (expandable to 128K)
Storage Media	Dual diskette	Dual diskette	Dual diskettes*	Dual diskettes*
Storage Capacity	300K chars./diskette	300K chars./diskette	300K chars./diskette	300K chars./diskette
DISPLAY STATION FEATURES				
Screen Size & Type	1" x 8" gas plasma	8½" x 11" CRT	7½" x 10" CRT	7½" x 10" CRT
Display Buffer Memory	—	—	—	—
Format & Capacity	1 line x 24 chars. (24 chars. total)	66 lines x 102 chars. (6732 chars. total)	66 lines x 85 chars. (10) (5610 chars. total)	9 x 14 dot matrix
Character Generation	Dot matrix	9 x 14 dot matrix	Up, down, left, right or diagonally	Standard
Cursor Positioning	Left, right	360° electronic control	Standard	Standard (to 156 char.)
Vertical Scrolling	None	Standard	Standard	Standard
Horizontal Scrolling	Standard	Std. to 156 chars.	Standard	Standard
Page Scrolling	None	—	Standard	Standard
Display Highlighting	None	Standard	Standard	Standard
Character Size Control	None	Standard	Standard	Standard
Character Pitch Display	None	Standard	Standard	Standard
Character Spacing Display	None	Standard	Standard	Standard
Line Spacing Display	None	Standard	Standard	Standard
Line Justify Display	None	Standard	Standard	Standard
Underscore Display	Standard	Standard	Standard	Standard
Sub-Superscript Display	None	Standard	Standard	Standard
Multi-Column Page Display	None	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	None	None
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER STATIONS FEATURES				
Printer Type & Speed	Daisy 35 cps	Daisy 35 cps	35 cps daisy wheelprinter	35 cps daisy wheelprinter
Printer Buffer Memory	—	—	—	—
Character Pitch/Spacing	10/12/prop	10/12/prop	10/12/proportional	10/12/proportional
Writing Line Width	13.2"	13.2"	13"	13"
Carriage Paper Width	15"	15"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-Of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub-Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bi-directional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	None	Standard	None	None
GEN FUNCTIONAL FEATURES				
Media Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Limited, document	Some employed for-formatting is via full menu	Some employed for-formatting is via full menu
Machine Dialog/Menu Prompt	Standard	Limited, document	Some employed for-formatting is via full menu	Standard
Forms Input	None	Standard	Standard	Standard
Control Character Printout	Standard	Standard	None	None
Printout Queuing	None	—	Optional	Optional
Revision & Status Reporting	—	—	Optional	Optional
System Security	None	None	None	None
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	—	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	—	—	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	Manual, adjustable Hot Zone	Manual, adjustable Hot Zone	Manual, Hot Zone	Manual, Hot Zone
REMARKS & OTHER FEATURES	Supplies include media, printwheels, ribbons, special platen, tractor feed, noise suppressors, other	Supplies include media, printwheels, ribbons, special platen, tractor feed, noise suppressors, other	*May be configured with single or dual sided, dual density diskettes or 1.8" Winchester fixed disk drive with a 5Mb or 10Mb disk **66 lines x 102 chars (12 pitch) (6732 total chars.)	*May be configured with single or dual sided, dual density diskettes or 1.8" Winchester fixed disk drive with a 5Mb or 10Mb disk **66 lines x 102 chars (12 pitch) (6732 total chars.)

Standalone Word Processing Systems

Xerox	Xerox	Xerox	Xerox	COMPANY
850 Display Typewriter	850 Page Display	860	860 Partial Page Display	MODEL
Standard	Standard	Standard	Standard	TEXT INPUT FEATURES (cont'd)
Standard	Standard	Standard	Standard	Auto Input Underline Auto Centering
Standard	Standard, six positions	Standard	Standard	Auto Line Spacing Auto Page Numbering
Standard	Standard	Standard	Standard	Auto Headers/Footers
Standard	Standard	Standard	Standard	Auto Pagination
Standard	Standard	Standard	Standard	TEXT EDIT & MERGE FEATURES
Standard	Standard	Standard	Standard	Document Assembly/Merge
Standard	Standard	Standard	Standard	Search Capability
Standard	Standard	Standard	Standard	Delete Capability
Standard	Standard	Standard	Standard	Global Search & Replace
Standard, block ID by ellipsis	Standard, block ID by ellipsis	Standard	Standard	Block Move/Copy
—	Standard	Standard	Standard	Column Move/Delete
Standard	Standard	Standard	Standard	Auto Repagination
Standard	Standard	None	None	Auto Widow Adjust
None	Standard via program	Optional	Optional	Auto File Sort
Standard via program	Standard via program	Optional	Optional	Auto File Select
—	None	None	None	Auto Footnote Tie-In Term Dictionary/Glossary
Standard	Standard	None	None	COMMUNICATIONS
Optional \$3,600*	Optional \$3,600*	Optional ASCII, Xerox internal, bisynch. 2770/2400 baud, supports ASCII, EBCDIC, Xerox WP	Optional ASCII, Xerox internal, bisynch. 2770/2400 baud, supports ASCII, EBCDIC, Xerox WP	Availability
Asynch./bisynch. 2770 to 2400 baud, supports ASCII, EBCDIC, Xerox WP	Asynch./bisynch. 2770 to 2400 baud, supports ASCII, EBCDIC, Xerox WP	None	Optional	Format & Speed
None	None	None	None	ARITHMETIC CAPABILITY
None	None	None	None	EDP CAPABILITY
Standard**	Standard**	Records Processing, System Activity Recording	Records Processing, System Activity Recording	Multiprogramming
Media converters for Xerox 800, IBM mag card & diskette	Media converters for Xerox 800, IBM mag card & diskette, paper feeder, Shared Printer Interface	Basic Language Interpreter	Basic Language Interpreter	Compilers
October 1977 USA	April 1978 USA	Wide carriage printer, auto. paper feeder *	Wide carriage printer, auto. paper feeder *	APPLICATIONS SOFTWARE
\$7,600	\$12,200	\$14,850**	\$13,500**	PERIPHERALS
\$425 (6-mo.)	\$475 (6-mo.)	\$530/mo. (1-yr.)	—	BACKGROUND INFORMATION
\$400 (1-yr.)	\$575 (1-yr.)	\$525/mo. (2-yr.)	—	First Delivery Date
\$375 (2-yr.)	\$545 (2-yr.)	—	—	Country of Manufacture
\$950/yr.	\$1,130/yr.	\$1,050**	\$590 (1-yr.)	Installed Base Estimate
90 days	90 days	90 days parts & labor.	\$565 (2-yr.)	PRICING & TERMS
			\$1,300**	Purchase
			90 days parts & labor.	Rental
				Lease
				Maintenance
				Warranty & Support
				REMARKS & OTHER FEATURES
				Shared printer interface, memory.
				Shared printer interface, memory.
				*Basic system 860 Controller w/ 96K memory; 2, single sided diskette drives, keyboard; printer, \$30 license records processing, \$15-\$20 commun.
				**Basic system 860 Controller w/ 96K memory; 2, single sided diskette drives, keyboard; printer, Partial Page Display, \$135 installation/removal fee.

Standalone Word Processing Systems

COMPANY	XMark	XMark	Zenith	
MODEL	Office Master	Office Mate	Z 89 Electronic Typing	
SYSTEM CONFIGURATION				
Configuration	Keyboard, CRT, CPU, dual diskette drive (8" drive)	Keyboard/CRT, CPU, dual diskette drive (5½")	Keyboard console/printer	
Memory Size	32K to 64K	32K to 64K	48K characters	
Storage Media	Dual diskette	Single or dual diskette	Mini-diskette	
Storage Capacity	300K chars./diskette	300K chars./diskette	70K chars./diskette	
DISPLAY STATION FEATURES				
Screen Size & Type	14" diagonal CRT	14" diagonal	12" diagonal CRT	
Display Buffer Memory	90 lines	90 lines	24 lines x 80 chars	
Format & Capacity	24 lines x 80 chars (1920 chars. total)	24 lines x 80 chars (1920 chars. total)	24 lines x 80 chars	
Character Generation	11 x 13 dot matrix	11 x 13 dot matrix	5 x 9 dot matrix	
Cursor Positioning	Left, right, up, down, home, end, begin of line	Left, right, up, down, home, end, begin of line	Left, right, up, down, home, bottom	
Vertical Scrolling	10 lines per command	10 lines per command	Paged	
Horizontal Scrolling	To 160 chars./line	To 160 chars./line	None	
Page Scrolling	None	None	Standard	
Display Highlighting	Flash, intensity, reverse	Flash, intensity, reverse	Standard	
Character Size Control	None	None	None	
Character Pitch Display	None	None	None	
Character Spacing Display	None	None	None	
Line Spacing Display	None	None	None	
Line Justify Display	None	None	Standard	
Underscore Display	Line & dotted line	Line & dotted line	Highlighting	
Sub-Superscript Display	Highlighted	Highlighted	None	
Multi-Column Page Display	None	None	Standard	
Stored Form Recall/Display	Standard	Operator option	Standard	
Control Code Display	Standard	Standard	Standard	
Format Statement Display	Daisy wheel, 45/55 cps*	Daisy wheel, 45/55 cps*	Diablo, Xerox 38 cps	
PRINTER STATIONS FEATURES				
Printer Type & Speed	160 chars.	160 chars.	1000 chars	
Printer Buffer Memory	10/12 proportional	10/12 proportional	10/12 proportional	
Character Pitch / Spacing	13"	13"	99 chars	
Writing Line Width	15"	15"	16"	
Damaged Paper Width	Standard	Standard	Standard	
First Line Forms Advance	Standard	Standard	Standard	
End Of Page Stop	Standard	Standard	Standard	
Justified Printout	Standard	Standard	None	
Sub-Superscript Printout	Standard	Standard	Standard	
Non-Adjust Printout	Standard	Standard	Standard	
Bi-directional Printout	Standard	Standard	None	
Simultaneous Printout	Standard	Standard	Standard	
GEN FUNCTIONAL FEATURES				
Media Stored Format	Standard	Standard	Standard	
Default Format Statement	Standard	Standard	Standard	
Stored Multiple Formats	Extensive displays of operator options	Extensive displays of operator options	Extensive displays of operator options	
Machine Dialog/Menu Prompt	Standard**	Standard	Standard	
Forms Input	None	Optional	Standard	
Control Character Printout	None	None	Standard	
Printout Queuing	Standard	Standard	Standard	
Revision & Status Reporting	—	—	Standard	
System Security	—	—	None	
TEXT INPUT FEATURES				
Auto Carriage Return	Standard	Standard	Standard	
Auto Word Wraparound	Standard	Standard	Standard	
Auto Margin Adjust	Standard	Standard	Standard	
Temporary Margins	Standard	Standard	Standard	
Auto Decimal Tab	Standard, L, R, center	Standard, L, R, Center	None	
Hyphenation	Manual, adjustable Hot Zone	Manual, adjustable Hot Zone	Manual	
REMARKS & OTHER FEATURES	*Spinwriter printer also available **Forms package for data entry applications Additional memory & storage capacity avail	*Spinwriter printer also available **Forms package for data entry applications Additional memory & storage capacity avail		

Standalone Word Processing Systems

COMPANY	XMark	XMark	Zenith	
MODEL	Office Master	Office Mate	Z-89 Electronic Typing	
TEXT INPUT FEATURES (cont'd)				
Auto Input Underline	Standard	Standard	Standard	
Auto Centering	Standard	Standard	Standard	
Auto Line Spacing	Operator coding	Operator coding	Standard	
Auto Page Numbering	Standard	Standard	None	
Auto Headers/Footers	Standard	Standard	None	
Auto Pagination	Standard	Standard	Standard	
TEXT EDIT & MERGE FEATURES				
Document Assembly/Merge	Stored text assembled & merged w/keyboarded text	Stored text assembled & merged w/keyboarded text	Stored text merged with keyboard and other stored text	
Search Capability	By file name, page no & character string C. W. L. S. P. Page & specified block	By file name, page no & character string C. W. L. S. P. Page & specified block	Char. string or variable text marker C. W. L. Page, cursor to end	
Delete Capability	Next occurrence, manual or auto replacement	Next occurrence, manual or auto replacement	Char. string automatic or with operator configuration	
Global Search & Replace				
Block Move/Copy	Standard	Standard	None	
Column Move/Delete	Standard	Standard	None	
Auto Repagination	Standard	Standard	Standard	
Auto Widow Adjust	Standard	Standard	None	
Auto File Sort	Standard	Standard	Optional	
Auto File Select	Standard	Standard	Optional	
Auto Footnote Tie-In	None	None	None	
Term Dictionary/Glossary	None	None	None	
COMMUNICATIONS				
Availability	Standard	Standard	Standard	
Format & Speed	ASCII formatted, 1200 baud	ASCII formatted, 1200 baud	Optional	
ARITHMETIC CAPABILITY				
EDP CAPABILITY	Asynch, Bisynch, Sync, ASCII, IBM 2741-compat. at 110 to 9600 baud*	Asynch, Bisynch, Sync, ASCII, IBM 2741-compat. at 110 to 9600 baud*	Full	
Multiprogramming	None	None	Optional	
Compilers	Basic, BTL Assembler, FORTRAN V, COBOL Assembler	Basic, BTL Assembler, FORTRAN V, COBOL Assembler	FORTAN, COBOL, PLI, PASCAL, FORTH, BASIC	
Applications Software	Available from XMark**	Available from XMark**	Optional (wide variety)	
PERIPHERALS				
BACKGROUND INFORMATION				
First Delivery Date	Printer, OCR IBM Card Reader 2-192 Mb Winchester and Cartridge	Paper Tape, OCR, Mag Tape Reader	Dual Diskettes	
Country of Manufacture	Disk Storage March 1976 USA 220	USA	1980 USA Over 1000	
Installed Base Estimate	\$17,500	\$12,500	\$6,418	
PRICING & TERMS	\$700	\$500	30 day cancel, rental varies during term	
Purchase	\$460 (5 yr.)	\$290 (5 yr.)	\$250 (30 mo.) \$180 (60 mo.)	
Rental	\$135/mo	\$100/mo	\$75/mo	
Lease	90 days	90 days	90 days parts and labor training classes, hot line	
Maintenance				
Warranty & Support			Additional stations \$3290	
REMARKS & OTHER FEATURES				
	*Optional, IBM 2780/3270/3780, TSO, ATS, ATMS, U-200, Burroughs compatible Sync at up to 50K baud	*Optional, IBM 2780/3270/3780, TSO, ATS, ATMS, U-200, Burroughs compatible Sync at up to 50K baud		
	**Including Data Entry, Letter Writing, Scientific Calc., Business Applications, and Payroll	**Including Data Entry, Letter Writing, Scientific Calc., Business Applications, and Payroll		

Multi-Terminal Word Processing Systems

The following tabulations cover the parameters, features and pricing of 50 shared-logic word processing systems currently marketed by 27 different vendors.

The first or even-numbered pages cover System Configuration; Display Station Features; Printer Station Features; General Functional Features; and Text Input Features for each shared-logic system.

The second or odd-numbered pages continue the coverage of Text Input Features and also detail Text Edit & Merge Features; Communications; Arithmetic Capability; EDP Capability; Peripherals; Background Information; and Pricing & Terms.

Multi-Terminal Word Processing Systems

COMPANY	ACT / Office Automation	AM / Jacquard	Basic Four	Basic Four
MODEL	Ultra Text II	J100 & AMtext 100	Dataword II	Wordstream 1200*
SYSTEM CONFIGURATION				
System CPU Controller	Honeywell Level 6	Jacquard J 100	Sys. 200 410 610 730	Wordstream
CPU Controller Memory	128K to 2M	64K to 128K	40K	64K or 128K
System Storage Media	1 to 8 disks	Disk & diskette	Disk	Diskette (24)
Storage Capacity	5 to 300 Mb disk	320Mb disc/250Kch/disk	14 Mb 75 Mb	350K chars diskette
File Organization	By document name	By document name	By document name & number	By document & page
No Keystrokes Supported	to 20	to 16	1 to 4	4
No Printers Supported	to 20	to 10	1 to 4	3
DISPLAY FEATURES				
Screen Size & Type	14 inch diagonal	12" diagonal CRT	15" diagonal CRT	8" x 10 5" CRT
Display Buffer Memory	232K	1920 chars	64K	4560 chars
Format & Capacity	24 lines x 80 chars	24 lines x 80 chars	64 lines x 80 chars	57 lines x 80 chars (4560 chars total)
Character Generation	(1920 chars total)	(1920 chars total)	7 x 9 dot matrix	7 x 9 dot matrix
Cursor Positioning	7 x 9 dot matrix	Left, right, up, down	Left, right, up, down	Left, right, up, down
Vertical Scrolling	Standard	Standard	None	None
Horizontal Scrolling	Standard	to 450 chars	Option	Standard
Page Scrolling	Standard	Standard	Standard	Standard
Display Highlighting	Standard	Standard	Standard	Standard
Character Size Control	None	None	None	None
Character Pitch Display	None	None	None	None
Character Spacing Display	None	None	None	None
Line Spacing Display	Standard	None	Standard	Standard
Line Justify Display	Standard	None	Standard	Standard
Underscore Display	Standard	Optional	Standard	Codes only
Sub-Superscript Display	Standard	Standard	Standard	Standard
Multi-Column Page Display	Standard***	Standard	Standard	Standard
Stored Content Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	None
PRINTER FEATURES				
Printer Type & Speed	Diablo daisy 45 cps**	Daisy 30 45 55 cps*	Daisy wheel 45 cps*	Geneva daisy 45 cps
Printer Buffer Memory				4560 chars
Character Pitch / Spacing	10 12	Variable prop	10 12	10 12 proportional
Writing Line Width	13.2"	13.2" 25"	13.2"	13.2"
Carriage Paper Width	15"	15" 28"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-Of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub-Superscript Printout	Standard	Standard	Standard	Standard
Non Adjust Printout	Standard	Standard	None	Standard
Bi-directional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Media Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	None	With DP capabilities
Stored Multiple Formats	Standard	Standard	Standard	With DP capabilities
Machine Dialog / Menu Prompt	Standard	Standard	Standard	With fields, max. 80-char
Forms Input	Standard	Standard	Standard	None
Control Character Printout	Standard	Standard	Standard	None
Printout Queuing	Standard	Standard	None	Optional, 30,000-word
REVISION & STATUS REPORTING	Standard	Standard	Standard	Optional
System Security	Document protection & log on passwords	Optional, 2 level log on passwords	Standard, operator password & doc security no	Optional
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	Optional
Auto Word Wraparound	Standard	Standard	Standard	Optional
Auto Margin Adjust	Standard	Standard	Standard	Optional
Temporary Margins	Standard	Standard	Standard	Optional
Auto Decimal Tab	Standard	Standard	Standard	Optional
Hyphenation	Automatic via algorithm	Manual, adjustable Hot Zone system scan, discretionary hyphens	Manual, discretionary hyphens	Full-duplex asynch EBCDIC, ASCII, 110 to 4800 bps, bisynch to 4800 bps
REMARKS & OTHER FEATURES				
	*To 160 chars / line	*Qume Wide Track	*Line Printer	*Using Honeywell GCOS
	**Optional NEC Spinwriter 55 cps or line printer up to 900 lpm		DP & WP can be accomplished on same (multi-function) terminal	**Also 3270, 2780, 3780 to host w/ serial, Ultra Text, Network Processor
	***Multiple margins set within text		*No longer in new production	***Basic system, 5 display stations, 1 printer, 1-10 Mb disk CPU with 192K w/ memory (CRT has 48K mem.)

Multi-Terminal Word Processing Systems

ACT / Office Automation	AM / Jacquard	Basic Four	Basic Four	COMPANY
Ultra-Text II	J100 & AMtext 100	Dataword II	Wordstream 1200	MODEL
Standard	Standard	Standard	Standard	TEXT INPUT (cont'd)
Standard	Standard	Standard	Standard	Auto Input Underline
Standard	Standard	Standard	Standard	Auto Pagination
Standard	Standard	Standard	Standard	Auto Centering
Standard	Standard	Standard	Standard	Auto Line Spacing
Standard	Standard	Standard	Standard	Auto Page Numbering
Standard	Standard	Standard	Standard	Auto Headers / Footers
Standard	Standard	Standard	Standard	TEXT EDIT & MERGE
Standard	Standard	Standard	Standard	Document Assembly/Merge
Standard	Standard	Standard	Standard	Search Capability
Standard	Standard	Standard	Standard	Delete Capability
Standard	Standard	Standard	Standard	Global Search & Replace
Standard	Standard	Standard	Standard	Block Move/Copy
Standard	Standard	Standard	Standard	Column Move/Delete
Standard	Standard	Standard	Standard	Auto Repagination
Standard	None	Standard	Standard	Auto Widow Adjust
Optional*	Standard	With DP capabilities	Optional	Auto File Sort
Standard	None	With DP capabilities	With fields, max. 80-char	Auto File Select
Standard	None	None	None	Auto Footnote Tie-In
Standard	None	None	Optional, 30,000-word	Term Dictionary/Glossary
Optional	Standard	Optional	Optional, binary synchronous ASCII, EBCDIC transparent	COMMUNICATIONS
Standard	Standard	Standard	Standard	FORMAT & SPEED
Standard	BASIC, Assembly	Standard	None	EDP CAPABILITY
Standard	Available	None	None	Multiprogramming
All Honeywell Level 6 peripherals	Data Rate, Accounting	As a DP function	None	Compilers
August 1977 USA 5	Line printers, disc storage, tape	Line printer	Mag card converter, wide-and twin-track printers, hard disk file mgmt. system	APPLICATIONS SOFTWARE
\$88,000***	February 1977 USA	June 1980 USA	USA	PERIPHERALS
—	—	—	—	BACKGROUND INFO.
\$19,900*	\$12,500*	\$30,962*	Rental & lease prices available on quotation	First Del. Date
Various rental & lease plans available	None	—	—	Country of Manufacture
Honeywell	AM Service	By Sorbus	—	Installed Base Estimate
1 year warranty	90 days, training course	N/C operator training	Purchase	PRICING & TERMS
	90 day warranty, 3 days operator training	—	Rental	
		By Sorbus	Lease	
		N/C operator training	Maintenance	
		—	Warranty & Support	
			REMARKS & OTHER FEATURES	

Multi-Terminal Word Processing Systems

COMPANY	Basic Four	Comptek	Comptek	Comptek
MODEL	Wordstream 2200*	Accutech/Barrister 100	Accutech/Barrister 200	Accutech/Barrister 300
SYSTEM CONFIGURATION				
System CPU / Controller	Wordstream	Data General Nova 4/C	Data General Nova 4/S	Data General 4/X
CPU / Controller Memory	To 128K	64KB	128KB	128KB
System Storage Media	Diskette (2 to 10)	Disk	Disk	Disk
Storage Capacity	350K chars diskette	10MB	30MB or 74MB	30MB or 74MB
File Organization	By document & page	By document name:	By document name:	By document name:
No Keystations Supported	12	3	page no. or line number	page no. or line no.
No Printers Supported				
DISPLAY FEATURES				
Screen Size & Type	8" x 10.5" CRT	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT
Display Buffer Memory	4560 chars	1920 chars	1920 chars	1920 chars
Format & Capacity	57 lines x 80 chars	24 lines x 80 chars	24 lines x 80 chars	24 lines x 80 chars
Character Generation	(4560 chars total)	(1920 chars total)	(1920 chars total)	(1920 chars total)
Cursor Positioning	7 x 9 dot matrix	5 x 8 dot matrix	5 x 8 dot matrix	5 x 8 dot matrix
Vertical Scrolling	Left, right, up, down, home	Left, right, up, down, home	Left, right, up, down, home	Left, right, up, down, home
Horizontal Scrolling	None	Standard	Standard	Standard
Page Scrolling	Standard	Standard	Standard	Standard
Display Highlighting	Standard	Standard	Standard	Standard
Character Size Control	None	None	None	None
Character Pitch Display	None	None	None	None
Character Spacing Display	None	Standard	Standard	Standard
Line Spacing Display	Standard	Standard	Standard	Standard
Line Justify Display	Standard	Standard	Standard	Standard
Underscore Display	Codes Only	Codes Only	Codes Only	Codes Only
Sub. Superscript Display	Standard	Standard	Standard	Standard
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall / Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	None	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	45 cps Qume daisy wh.	Diablo 45/55 cps**	Diablo 45/55 cps**	Diablo 45/55 cps**
Printer Buffer Memory	4560 chars	768 chars	768 chars	768 chars
Character Pitch / Spacing	10/12 proportional	10/12 proportional	10/12 proportional	10/12 proportional
Writing Line Width	13.2"	13"	13"	13"
Carriage Paper Width	15"	15"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-Of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub. Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Optional	Optional	Standard
Bi-directional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Media Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	None	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog / Menu Prompt	Standard	Standard	Standard	Standard
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	Standard	Standard	Standard	Standard
Printout Queuing	None	Standard	Standard	Standard
Revision & Status Reporting				
System Security	Via Index entries	Standard	Standard	Standard
TEXT INPUT FEATURES				
Auto Carrier Return	Std thru Program	Docu protection & 2-level log on passwords	Docu protection & 2-level log on passwords	Docu protection & 2-level log on passwords
Auto Word Wraparound	Directory	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	Manual, 5-char. Hot Zone	Automatic via algorithm & 50,000 word dictionary	Automatic via algorithm & 50,000 word dictionary	Automatic via algorithm & 50,000 word dictionary
REMARKS & OTHER FEATURES	*No longer in new production.	*Any comb. of CRT's & daisy printers up to a max of 4 line printer may be added. **180, 200, 430, and 730 lpm line printers available	*Any comb. of CRT's & daisy printers up to a max of 8 line printer may be added. **180, 200, 430, and 730 lpm line printers available	*Any comb. of CRT's & daisy printers up to a max of 15 line printer may be added. **180, 200, 430, and 730 lpm line printers available

Multi-Terminal Word Processing Systems

COMPANY	Basic Four	Comptek	Comptek	Comptek	MODEL
	Wordstream 2200	Accutech/Barrister 100	Accutech/Barrister 200	Accutech/Barrister 300	TEXT INPUT (cont'd)
	Standard	Standard	Standard	Standard	Auto Input Underline
	Standard	Standard	Standard	Standard	Auto Centering
	Standard	Standard	Standard	Standard	Auto Line Spacing
	Standard	Standard	Standard	Standard	Auto Page Numbering
	Standard	Standard	Standard	Standard	Auto Headers/Footers
	Standard	Standard	Standard	Standard	Auto Pagination
	Standard	Standard	Standard	Standard	TEXT EDIT & MERGE
	Standard	Standard	Standard	Standard	Document Assembly/Merge
					Search Capability
					Delete Capability
					Global Search & Replace
					Block Move/Copy
					Column Move/Delete
					Auto Repagination
					Auto Widow Adjust
					Auto File Sort
					Auto File Select
					Auto Footnote Tie-In
					Term Dictionary/Glossary
					COMMUNICATIONS
					Availability
					Format & Speed
					ARITHMETIC CAPABILITY
					EDP CAPABILITY
					Multiprogramming
					Compilers
					Applications Software
					PERIPHERALS
					BACKGROUND INFO.
					First Delivery Date
					Country of Manufacture
					Installed Base Estimate
					PRICING & TERMS
					Purchase
					Rental
					Lease
					Maintenance
					Warranty & Support
					REMARKS & OTHER FEATURES

Multi-Terminal Word Processing Systems

COMPANY	Comptek	Data Equipment Inc	Data Processing Design	Decision Micro Systems
MODEL	Accutext Barrister 400	Force Four	WORD-11	MicroWord
SYSTEM CONFIGURATION				
System CPU/Controller	4MHZ Z80	DEC PDP 11/34-PDP	Intel 8085A	TEXT INPUT (cont'd)
CPU Controller Memory	32 64K RAM	11-70	64K station	Auto Input Underline
System Storage Media	Disk (2)	80 KW to 1M Words	Disk & diskette	Auto Centering
Storage Capacity	2.140 MB or 2.74 MB	Diskette mag tape	10 to 800 Mb disk*	
File Organization	By document name, page no. or line no.	Document diskette	To 1.4 billion chars	
No Keystrokes Supported	1-4	By document name & account	16	
No Printers Supported	1-2	To 60	16	
DISPLAY FEATURES				
Screen Size & Type	12" diagonal CRT	1 to 60 Letter Quality*	15" diagonal CRT	Auto Line Spacing
Display Buffer Memory	1920 chars	12" diagonal CRT	1920 chars	Auto Page Numbering
Format & Capacity	24 lines x 80 chars **	2 to 4K chars	24 lines x 80 chars	Auto Headers/Footers
Character Generation	(3840 chars total)	(3840 chars total)	(1920 chars total)	Auto Pagination
Cursor Positioning	5 x 8 dot matrix	5 x 7 x 9 dot matrix	11 x 13 dot matrix	TEXT EDIT & MERGE
Vertical Scrolling	Left, right, up, down.	Left, right, up, down.	Left, right, along bottom	Document Assembly/Merge
Horizontal Scrolling	home	home***	home	
Page Scrolling	Standard	Standard	Standard	
Display Highlighting	None	None	None	
Character Size Control	None	Code only	None	
Character Pitch Display	None	Code only	None	
Character Spacing Display	Standard	Selectable	None	
Line Spacing Display	Standard	Codes only	Standard	
Line Justify Display	Standard	Codes only	Code only	
Underscore Display	Standard	Codes only	Code only	
Sub-Superscript Display	Standard	None	Manual	
Multi-Column Page Display	Standard	None	Standard	
Stored Form Recall/Display	Standard	Standard	Standard	
Control Code Display	Standard	Standard	Standard	
Format Statement Display	Standard	None	Standard	
PRINTER FEATURES				
Printer Type & Speed	Diablo 45-55 cps**	NEC 55 cps, thimble	30 to 55 cps**	Block Move/Copy
Printer Buffer Memory	768 chars	256 chars	Diablo daisy 55 cps**	Column Move/Delete
Character Pitch/Spacing	10-12 proportional	10-12 proportional	10-12/15 proportional	Auto Repagination
Writing Line Width	13"	10-12 micospacing	10-12/15 proportional	Auto Widow Adjust
Carriage Paper Width	15"	13"	13"-15"	Auto File Sort
First Line Form Advance	Standard	Operator selectable	To 15 3/4" 255 chars	Auto File Select
End-Of-Page Stop	Standard	Operator selectable	To 28	Auto Footnote Tie-In
Justified Printout	Standard	Standard	Standard	Term Dictionary/Glossary
Sub-Superscript Printout	Standard	Standard	Standard	
Non-Adjust Printout	Standard	Standard	Standard	
Bidirectional Printout	Optional	Standard	Standard, printer depend	COMMUNICATIONS
Simultaneous Printout	Standard	Standard	Standard	Availability
GENERAL FEATURES				Format & Speed
Media Stored Format	Standard	Standard	Standard	
Default Format Statement	Standard	None	Standard	ARITHMETIC CAPABILITY
Stored Multiple Formats	Standard	None	Standard	EDP CAPABILITY
Maching Dialog/Menu Prompt	Standard	Standard	Displays all operator options on menu	Multiprogramming
Forms Input	Standard	None	Standard	Compilers
Control Character Printout	Standard	Selectable	None	Applications Software
Printout Queuing	Standard	Standard	Prints from disc or display	PERIPHERALS
Revision & Status Reporting	Standard	Standard	Standard	BACKGROUND INFO
System Security	Docu protection & 2-level log-on passwords	Optional	Log on password, 2 levels of security	First Delivery Date
TEXT INPUT FEATURES				Country of Manufacture
Auto Carrier Return	Standard	Standard	Standard	Installed Base Estimate
Auto Word Wraparound	Standard	Operator selectable	Standard	PRICING & TERMS
Auto Margin Adjust	Standard	Standard	Standard	Purchase
Temporary Margins	Standard	Standard	Standard	Rental
Auto Decimal Tab	Standard	None	Standard	Lease
Hyphenation	Automatic via algorithm & 50,000 word dictionary	Manual	Semi-automatic	Maintenance
REMARKS & OTHER FEATURES	*Any comb. of CRT's & daisy printers up to a max of 15 line printer may be added. **24 line available. ***Char. Word Tab also graphics capability. X-Y positioning avail	*Single or double density and Winchester-type hard disk avail **24 line available. ***Char. Word Tab also graphics capability. X-Y positioning avail	*1 to 8 high speed draft printers. **Qume, Xerox, Diablo daisy wheel or NEC Spwriter, also Twin Track & Draft printers **NEC 55 cps, line printer 240 lpm	Warranty & Support

Multi-Terminal Word Processing Systems

COMPANY	Comptek	Data Equipment Inc	Data Processing Design	Decision Micro Systems
MODEL	Accutext Barrister 400	Force Four	WORD-11	MicroWord
SYSTEM CONFIGURATION				
System CPU/Controller	Standard	Standard	Standard	TEXT INPUT (cont'd)
CPU Controller Memory	Standard	Standard	Standard	Auto Input Underline
System Storage Media	Standard	Standard	Standard	Auto Centering
Storage Capacity	Standard	Standard	Standard	
File Organization	Standard	Standard	Standard	
No Keystrokes Supported	Standard	Standard	Standard	
No Printers Supported	Standard	Standard	Standard	
DISPLAY FEATURES				
Screen Size & Type	15" CRT	15" CRT	Standard	Auto Line Spacing
Display Buffer Memory	4K	2 to 4K chars	Standard	Auto Page Numbering
Format & Capacity	24 lines x 80 chars **	24 lines x 80 chars or (3840 chars total)	Standard	Auto Headers/Footers
Character Generation	(1920 chars total)	24 lines x 132 chars	Standard	Auto Pagination
Cursor Positioning	5 x 7 dot matrix	11 x 7 x 9 dot matrix	Standard	TEXT EDIT & MERGE
Vertical Scrolling	Left, right, up, down.	Left, right, up, down.	Standard	Document Assembly/Merge
Horizontal Scrolling	home***	home***	Standard	
Page Scrolling	Standard	Standard	Standard	
Display Highlighting	Standard	Standard	Standard	
Character Size Control	Standard	Standard	Standard	
Character Pitch Display	Standard	Standard	Standard	
Character Spacing Display	Standard	Selectable	Standard	
Line Spacing Display	Standard	Codes only	Optional	
Line Justify Display	Standard	Codes only	Optional	
Underscore Display	Standard	None	Standard	
Sub-Superscript Display	Standard	Manual	Standard	
Multi-Column Page Display	Standard	Standard	Standard	
Stored Form Recall/Display	Standard	Standard	Standard	
Control Code Display	Standard	Standard	Standard	
Format Statement Display	Standard	None	Standard	
PRINTER FEATURES				
Printer Type & Speed	Diablo 45-55 cps**	NEC 55 cps, thimble	30 to 55 cps**	Block Move/Copy
Printer Buffer Memory	768 chars	256 chars	Diablo daisy 55 cps**	Column Move/Delete
Character Pitch/Spacing	10-12 proportional	10-12 micospacing	10-12/15 proportional	Auto Repagination
Writing Line Width	13"	13"	13"-15"	Auto Widow Adjust
Carriage Paper Width	15"	15"	Standard for text and footnotes	Auto File Sort
First Line Form Advance	Standard	Operator selectable	Alphanumeric sort up to six levels	Auto File Select
End-Of-Page Stop	Standard	Operator selectable	Standard	Auto Footnote Tie-In
Justified Printout	Standard	Standard	Standard	Term Dictionary/Glossary
Sub-Superscript Printout	Standard	Standard	Standard	
Non-Adjust Printout	Standard	Standard	Standard	
Bidirectional Printout	Optional	Standard	Spelling error dictionary	COMMUNICATIONS
Simultaneous Printout	Standard	Standard	Optional	Availability
GENERAL FEATURES				Format & Speed
Media Stored Format	Standard	Standard	Programmable ASCII, IBM compat., 50-9600 baud, bisynchronous 2770	ARITHMETIC CAPABILITY
Default Format Statement	Standard	None	Standard, asynch ASCII*, 110 to 9600 bps	EDP CAPABILITY
Stored Multiple Formats	Standard	Standard	Standard, synch ASCII*, Full & half duplex	Multiprogramming
Maching Dialog/Menu Prompt	Standard	Standard	Full & half duplex asynchronous, half-duplex bisynchronous*	Compilers
Forms Input	Standard	None	Full	Applications Software
Control Character Printout	Standard	Selectable	Standard	PERIPHERALS
Printout Queuing	Standard	Standard	Standard	BACKGROUND INFO
Revision & Status Reporting	Standard	Standard	Standard	First Delivery Date
System Security	Docu protection & 2-level log-on passwords	Optional	To 4 stations BASIC, FORTRAN IV, COBOL, PASCAL, Assembler	Country of Manufacture
TEXT INPUT FEATURES			Standard, Basic Plus** Available	Installed Base Estimate
Auto Carrier Return	Standard	Standard	Optional***	PRICING & TERMS
Auto Word Wraparound	Standard	Operator selectable	OCR, photocomp, line printers	Purchase
Auto Margin Adjust	Standard	Standard	Line printer, OCR	Rental
Temporary Margins	Standard	Standard	August 1977	Lease
Auto Decimal Tab	Standard	None	USA	Maintenance
Hyphenation	Automatic via algorithm & 50,000 word dictionary	Standard	11500	Warranty & Support
REMARKS & OTHER FEATURES	*Any comb. of CRT's & daisy printers up to a max of 15 line printer may be added. **24 line available. ***Char. Word Tab also graphics capability. X-Y positioning avail	*Single or double density and Winchester-type hard disk avail **24 line available. ***Char. Word Tab also graphics capability. X-Y positioning avail	\$7250-\$39,900 depending on configuration Negotiable	REMARKS & OTHER FEATURES
			3rd party	
			3rd party	
			Manufacturer	
			From \$335/mo	
			30 day warranty, 2 days training for manager & operators	
			30 day warranty, 2 days training for manager & operators	
			"MBASIC, CBASIC, "Also, Insurance Analysis, Office Machine Dealers Pkg, Report Writer, Mail List, Auto Letter Writer, Property Mgmt, Medical/Dental Office Mgmt	
			"Optional, bisynch IBM 2770, 2780, 3780 to 9600 bps	
			"Optional, Basic Plus 2, COBOL, FORTRAN IV, RPG II	
			***Accounts Payable, Accounts Rec, Order Entry, Inventory, Payroll General Ledger, others	

Multi-Terminal Word Processing Systems

COMPANY	A.B. Dick	Digital Equipment (DEC)	Edit Systems	Four-Phase
MODEL	Magna SL	WS 200	TEXT Ed II	ForeWord
SYSTEM CONFIGURATION				
System CPU Controller	IMP 16	PDP 8/A 625	PDP 8/E	Any Four-Phase mini
CPU Controller Memory	28K	32K to 128K words		48K to 480K
System Storage Media	Diskette	Disk & diskette		Disc
Storage Capacity	300K chars diskette	5 to 20 Mb 256K char		2.5 Mb to 270 Mb/disc
File Organization	By document name, page number & name	By document name		By document name
No Keystrokes Supported	1 to 3	8	10	24
No Printers Supported	1 to 3	4	10	16
DISPLAY FEATURES				
Screen Size & Type	14" diagonal CRT	12" diagonal CRT	1" x 12" LED	15" diagonal CRT
Display Buffer Memory	12K	7500 chars		Same as system mem
Format & Capacity	66 lines x 102 chars (10K chars total)	24 lines x 80 chars (1920 chars total)		24 lines x 80 chars (1920 chars total)
Character Generation	7 x 11 dot matrix*	7 x 9 dot matrix		7 x 9 dot matrix
Cursor Positioning	Up, down, left, right, home diagonal	Left, right along fixed bottom line		Left, right, up, down, home, return
Vertical Scrolling	Standard to 103 lines	Standard		Standard
Horizontal Scrolling	Standard to 250 chars	Standard		Standard
Page Scrolling		Standard		Standard
Display Highlighting		None		None
Character Size Control	Standard	Standard		Standard
Character Pitch Display	None	None		None
Character Spacing Display	Standard	None		None
Line Spacing Display	Standard	None		Codes only
Line Justify Display	Standard	Codes only		Codes only
Underscore Display	Standard	Codes only		Manual
Sub-Superscript Display	Standard	None		Standard
Multi-Column Page Display	Standard	Standard		Standard
Stored Form Recall/Display	Standard	Standard		Standard
Control Code Display	Standard	Standard		Daisy wheel 55 cps
Format Statement Display				Daisy wheel 45 cps
PRINTER FEATURES				Oume 55 cps daisy wh
Printer Type & Speed	Oume 55 cps daisy wh	1K		1920 chars
Printer Buffer Memory	10/12	Variable & proportional		10/12
Character Pitch Spacing	13"	13 2"		13 2"
Writing Line Width	15"	15"		15"
Carrage Paper Width	15"	Standard		Standard
First Line Forms Advance	Standard	Standard		Standard
End Of Page Stop	Standard	Standard		Std (intercharacter sp.)
Justified Printout	Standard	Standard		Standard
Sub-Superscript Printout	Standard	Standard		Standard
Non-Adjust Printout	Standard	Standard		Standard
Bidirectional Printout	None	Standard		Standard
Simultaneous Printout	Standard	Standard		Standard
GENERAL FEATURES				
Media Stored Format	Standard	Standard		Standard
Default Format Statement	Standard	Standard		Standard
Stored Multiple Formats	Standard	Standard		Standard
Machine Dialog / Menu Prompt	Standard	Standard		None
Forms Input	Standard	Standard		None
Control Character Printout	None	None		None
Printout Queuing	Standard	Standard		Standard
Revision & Status Reporting	None	Displays all open op home special DP		Via index entries
System Security	None	Standard, log on passwords	Keylock	Document passwords, keylock on CPU
TEXT INPUT FEATURES				
Auto Carriage Return	Standard	Standard		Standard
Auto Word Wraparound	Standard	Standard		Standard
Auto Margin Adjust	Standard	Standard		Standard
Temporary Margins	Standard	Standard		Standard
Auto Decimal Tab	Standard	Standard		Standard
Hyphenation	Manual, variable hot zone	Manual, discretionary hyphens	Optional algorithm	Manual, discretionary hyphens
REMARKS & OTHER FEATURES	*For 10-pitch chars, 6 x 11 dot matrix for 12 pitch chars System also displays Greek & Math symbols	*Or optional single diskette (600 char capacity)		

Multi-Terminal Word Processing Systems

A.B. Dick	Digital Equipment (DEC)	Edit Systems	Four-Phase	COMPANY
Magna SL	WS 200	TEXT Ed II	ForeWord	MODEL
Standard				TEXT INPUT (cont'd) Auto Input Underline Auto Centering
Standard		Standard Centers between margins or about a point	Standard	Auto Line Spacing Auto Page Numbering Auto Headers/Footers Auto Pagination
Standard		Standard	Standard	TEXT EDIT & MERGE Document Assembly/Merge
Standard		Standard	Standard	Search Capability
Standard		Standard	Standard	Delete Capability
Standard		By document name & page name or no & char string C. W. S. L. P. page, column Global search, selective replace	By document & line no. char string C. W. L. S. para., page, document First or all occurrence manual or automatic deletion or replacement	Global Search & Replace
Standard		Standard	Standard	Block Move/Copy
Standard		Standard	Standard	Column Move/Delete
Standard		Standard	Standard	Auto Repagination
Standard		Standard	Standard	Auto Widow Adjust
Standard		Standard	Standard	Auto File Sort
Standard		Standard	Standard	Auto File Select
Standard		Standard	Standard	Auto Footnote Tie-In Term Dictionary/Glossary
Standard		Standard	Standard	COMMUNICATIONS Availability Format & Speed
Optional		Optional	Optional	ARITHMETIC CAPABILITY EDP CAPABILITY Multiprogramming Compilers
Asynchronous ASCII 300 bps, CMC-compatible		Asynchronous ASCII at 300 to 9600 baud, also CMC compatible	Asynchronous 2780/3780 BSC at 1200 to 9600 baud	APPLICATIONS SOFTWARE
Statistical Total*		Optional	Optional	PERIPHERALS
None		None	None	BACKGROUND INFO.
None		Optional	None	First Delivery Date
None		User generated w/COS-310	Photocomposition	Country of Manufacture
None		OCR, draft printers, RS 232 devices, photocomp	OCR, paper tape, photo- composer, line printer	Installed Base Estimate
March 1979		November 1977	1972	PRICING & TERMS
USA		USA	USA	Purchase
\$14,500*		\$21,200*	**	Rental
\$605 (6 mo)*		3rd party rentals	**	Lease
\$585 (24 mo)*		3rd party leasing only	**	Maintenance
\$1,260/year*		Manufacturer	**	Warranty & Support
90 days parts & labor		90 days parts & labor, instructional program w/ special diskette	90 days parts & labor, 2 days N/C operator training	REMARKS & OTHER FEATURES
*Proofreading Aid		*CPU one command station, 1 work station, 2 diskette drives, 55 cps printer	*CPU one command station, 45 cps printer, 1 printer	*Includes 4500 CPU (48K), 2 display stations, 1 printer
**CPU, 1 work station, 2 diskette drives, 55 cps printer				**Prices vary depending upon system configura- tion & peripherals.

Multi-Terminal Word Processing Systems

COMPANY	Hazeltine	IBM/DPD	IBM/GSD	IBM/GSD
MODEL				
SYSTEM CONFIGURATION				
System CPU Controller	Multiple Microprocessor	IBM 3791	IBM 5525 Sys. unit	IBM 5525 Sys. unit
CPU / Controller Memory	96K	208 to 256K	29Mb	29Mb
System Storage Media	Diskette, disk	Disk/ diskette	Disk/ Diskette	Disk/ Diskette
Storage Capacity	800K / 14.5-29 MB	5 to 24.1 Mb	1Mb-diskette	1Mb-diskette
File Organization	By document	By document name	Document, page	Document, page
No Keystations Supported	6	12"	To 6	To 12
No Printers Supported	3	8"	3	6
DISPLAY FEATURES				
Screen Size & Type	15" diagonal CRT	15" diagonal CRT	IBM 5253*-15" diagonal	IBM 5253*-15" diagonal
Display Buffer Memory	16K	1920 chars	8K buffer	8K buffer
Format & Capacity	58 lines x 110 chars.	24 lines x 80 chars	24 line x 80 char. (1920 chars total)	24 line x 80 char. (1920 chars total)
Character Generation	5 x 7 dot matrix*	7 x 9 dot matrix	8 x 16 dot matrix	8 x 16 dot matrix
Cursor Positioning	By grammatical increments	Left, right, up, down, home	Contextual C, W, L, P	Contextual C, W, L, P
Vertical Scrolling	Standard	None	Standard	Standard
Horizontal Scrolling	Standard	None	To 172 characters	To 172 characters
Page Scrolling	Standard	Standard	Standard	Standard
Display Highlighting	Standard	Standard, intensity	Standard	Standard
Character Size Control	None	None	None	None
Character Pitch Display	Standard	None	None	None
Character Spacing Display	None	None	None	None
Line Spacing Display	Standard	None	Standard	Standard
Line Justify Display	None	Standard	Standard	Standard
Underscore Display	Standard	Code only	Standard	Standard
Sub/Superscript Display	Standard	Standard	Standard	Standard
Multi-Column Page Display	Standard	None	Standard	Standard
Stored Form Recall/Display	None	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	None	Daisy wheel 55 cps	55 cps Qume**	55 cps Qume**
PRINTER FEATURES				
Printer Type & Speed	40 or 55 cps daisy wh	—	—	—
Printer Buffer Memory	2K	10/12	10/12/proportional	10/12/proportional
Character Pitch/ Spacing	13.2"	13.1"	13"	13"
Writing Line Width	13.2"	15"	14"	14"
Carriage Paper Width	15"	Standard	Standard	Standard
First Line Forms Advance	Standard	Standard	Standard	Standard
End-Of-Page Stop	Standard	Standard (interword sp.)	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Media-Stored Formats	Standard	Standard	Standard	Standard
Default Format Statement	None	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog/ Menu Prompt	Standard	Standard	Standard	Standard
Forms Input	None	None	Standard	Standard
Control Character Printout	Standard	Standard	None	Standard
Printout Queuing	Standard	Standard	Standard	Standard
Revision & Status Reporting				
System Security	Standard	Standard via index entries	Standard	Standard
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	Standard	Manual	Manual Adjustable hot zone	Manual Adjustable hot zone
REMARKS & OTHER FEATURES	*Optional enlarged display	*To a maximum of 16 devices.	*May also be configured with the 5254 dual display which shows 12, 80 character lines. **May also be configured with the 5258 ink jet printer with 92 cps speed.	*May also be configured with the 5254 dual display which shows 12, 80 character lines. **May also be configured with the 5258 ink jet printer with 92 cps speed.

Multi-Terminal Word Processing Systems

COMPANY	IBM/GSD	IBM/GSD	IBM/GSD	MODEL
Hazeltine	IBM/DPD	IBM/GSD	IBM/GSD	
OPUS 80	3730	5520/020	5520/030	TEXT INPUT (cont'd) Auto Input Underline Auto Centering
Standard	Standard	Standard	Standard	Auto Line Spacing Auto Page Numbering Auto Headers/Footers Auto Pagination
Standard	Standard on printout	Standard	Standard	TEXT EDIT & MERGE Document Assembly/Merge
Standard	Standard	Standard	Standard	Search Capability
Standard	Standard	Standard	Standard	Delete Capability
Standard	Standard	Standard	Standard	Global Search & Replace
Standard	Standard	Standard	Standard	Block Move/Copy
Standard	Standard	Standard	Standard	Column Move/Delete
Standard	Standard	Standard	Standard	Auto Repagination
Standard	Standard	Standard	Standard	Auto Widow Adjust
Standard	Standard	Standard	Standard	Auto File Sort
Standard	Standard	Standard	Standard	Auto File Select
Standard	Standard	Standard	Standard	Auto Footnote Tie-In Term Dictionary/Glossary
Standard	Standard	Standard	Standard	COMMUNICATIONS Availability Format & Speed
Optional	2780, 3780, TTY	Standard SDLC, 1200 to 9600 bps	Std. Avail 11/80 Electronic Mail*	ARITHMETIC CAPABILITY EDP CAPABILITY Multiprogramming Compilers
None	None	Standard	Standard	Applications Software
None	None	S 370 Macro Assembler	None	PERIPHERALS
None	None	Auto Correspondence, User Prgrm., Host Attach Line Printer, Mag Card II Attachment	5321 Mag card unit	BACKGROUND INFO. First Delivery Date Country of Manufacture Installed Base Estimate PRICING & TERMS Purchase
USA	February 1979 —	February 1980 USA, UK	November 1980 USA	Rental
\$21,900*-\$59,400	**	Dependent upon configuration	—	Lease
\$812/mo incl main *	**	—	—	Maintenance
—	**	—	—	Warranty & Support
\$230*	—	—	—	REMARKS & OTHER FEATURES
		*Includes CPU 14.5 Mb disk and diskette drive, 1 workstation, 1 daisy-wheel printer	*Rel 1 of Administrative Processing Program will include Electronic Mail provides communications between 5520s, OS6, M/CII, 6240, 6640 Document printer, 6670 Information Dist. Sys./32, and Sys. 370	*Rel 2 of Administrative Processing Program will include Electronic Mail provides communications between 5520s, OS6, M/CII, 6240, 6640 Document printer, 6670 Information Dist. Sys./32, and Sys. 370
		*80- to 230-lpm ***Varies by amount of storage & number of terminals		

Multi-Terminal Word Processing Systems

COMPANY	IBM/GSD	IBM/GSD	Lanier	Lanier
MODEL	5520/040	5520/050	SS	SS-A
SYSTEM CONFIGURATION				
System CPU / Controller	IBM 5525 Sys. unit	IBM 5525 Sys. unit	—	—
Disk / Controller Memory	65Mb	130Mb	to 192K	to 192K
System Storage Media	Diskette	2 Diskette magazines &	to 4 disks opt disk	to 4 disks opt disk
Storage Capacity	1Mb/diskette	1 Mb/diskette	to 600 chars / diskette	to 600 chars / diskette
File Organization	Document, page	Document, page	By document name & page number	By document name & page number
No Keystations Supported	To 18	To 18	to 1, 4 or 8	to 1, 4 or 8
No Printers Supported	10	12	to 10	to 10
DISPLAY FEATURES				
Screen Size & Type	IBM 5253*-15" diagonal	IBM 5253*-15" diagonal	12" diagonal CRT	12" diagonal CRT
Display Buffer Memory	8K buffer	8K buffer	8,000 chars	8,000 chars
Format & Capacity	24 line x 80 char	24 line x 80 char	28 lines x 80 chars	28 lines x 80 chars
Character Generation	(1920 chars total)	(1920 chars total)	(2240 chars total)	(2240 chars total)
Cursor Positioning	8 x 16 dot matrix	8 x 16 dot matrix	Dot matrix	Dot matrix
Vertical Scrolling	Contextual C, W, L, P	Contextual C, W, L, P	Left, right, up, down, home, end	Left, right, up, down, home, end
Horizontal Scrolling	Standard	Standard	Standard to 99 lines	Standard to 99 lines
Page Scrolling	To 172 characters	To 172 characters	Standard to 254 chars	Standard to 254 chars
Display Highlighting	Standard	Standard	None	None
Character Size Control	None	None	None	None
Character Pitch Display	None	None	None	None
Character Spacing Display	None	None	None	None
Line Spacing Display	None	None	Codes only	Codes only
Line Justify Display	None	None	Standard	Standard
Underscore Display	Standard	Standard	Standard	Standard
Sub / Superscript Display	Standard	Standard	Standard	Standard
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall / Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	55 cps Qume**	55 cps Qume**	Qume 45 cps daisy wh	Qume 45 cps daisy wh
Printer Buffer Memory	10'/12' proportional	10'/12' proportional	6, 8, 10, 12, 15	6, 8, 10, 12, 15, prop. **
Character Pitch / Spacing	13"	13"	13", 26" optional	13", 26" optional
Writing Line Width	14"	14"	15", 28" optional	15", 28" optional
Carrage Paper Width	Standard	Standard	Standard	Standard
First Line Forms Advance	Standard	Standard	Standard	Standard
End-Of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub / Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Media Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Status mess. on top line	Status mess. on top line
Machine Dialog / Menu Prompt	Standard	Standard	of disp. command ver	of disp. command ver
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	None	None	Limited	Limited
Printout Queuing	Standard	Standard	—	—
Revision & Status Reporting	Standard	Standard	Optional	Optional
System Security	Standard	Standard	Optional	Optional
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	Manual Adjustable hot zone	Manual Adjustable hot zone	Manual scan before printout, semi-auto	Manual scan before printout, semi-auto
REMARKS & OTHER FEATURES	*May also be configured with the 5254 dual display which shows 12, 80 character lines. **May also be configured with the 5258 ink jet printer with 92 cps speed.	*May also be configured with the 5254 dual display which shows 12, 80 character lines. **May also be configured with the 5258 ink jet printer with 92 cps speed.		*Available w. Advanced Scientific software pkg

Multi-Terminal Word Processing Systems

COMPANY	IBM/GSD	IBM/GSD	Lanier	Lanier	MODEL
5520/040	5520/050	SS	SS-A		TEXT INPUT (cont'd) Auto Input Underline Auto Centering
Standard	Standard	Standard	Standard	Standard	Auto Line Spacing Auto Page Numbering Auto Headers / Footers Auto Pagination
Standard	Standard	Standard	Standard	Standard	TEXT EDIT & MERGE Document Assembly / Merge
Standard	Standard	Standard	Standard	Standard	Search Capability
Standard	Standard	Standard	Standard	Standard	Delete Capability
Standard	Standard	Standard	Standard	Standard	Global Search & Replace
Standard	Standard	Standard	Standard	Standard	Block Move / Copy
Standard	Standard	Standard	Standard	Standard	Column Move / Delete
Standard	Standard	Standard	Standard	Standard	Auto Repagination
Standard	Standard	Standard	Standard	Standard	Auto Widow Adjust
Standard	Standard	Standard	Standard	Standard	Auto File Sort
Standard	Standard	Standard	Standard	Standard	Auto File Select
Standard	Standard	Standard	Standard	Standard	Auto Footnotes Tie-in Term Dictionary / Glossary
None	None	None	Standard	Standard	COMMUNICATIONS Availability Format & Speed
Standard	Standard	Standard	Optional	Optional	ARITHMETIC CAPABILITY EDP CAPABILITY Multiprogramming Compilers
Standard	Standard	Standard	Standard	Standard	Applications Software
None	None	None	None	None	PERIPHERALS
None	None	None	Optional Synchronous Textran (Lanier internal) half-duplex to 1200 bps** Optional	Optional Synchronous Textran (Lanier internal) half-duplex to 1200 bps** Optional	BACKGROUND INFO. First Delivery Date Country of Manufacture Installed Base Estimate PRICING & TERMS Purchase
5321 Mag card unit	5321 Mag card unit	5321 Mag card unit	5321 Mag card unit	5321 Mag card unit	Rental
November 1980 USA —	November 1980 USA —	November 1979 USA —	November 1979 USA —	November 1979 USA —	Lease
Dependent upon configuration	Dependent upon configuration	*****	*****	*****	Maintenance
—	—	*****	*****	*****	Warranty & Support
—	—	*****	*****	*****	REMARKS & OTHER FEATURES
—	—	90 day warranty	90 day warranty	90 day warranty	
—	—	*Rel. 2 of Administrative Processing Program will include Electronic Mail. Provides communications between 5520, OS6, M, CII, 6240, 6640 Document printer, 6670 Information Dist. Sys. 32, and Sys. 370.	*Rel. 2 of Administrative Processing Program will include Electronic Mail. Provides communications between 5520, OS6, M, CII, 6240, 6640 Document printer, 6670 Information Dist. Sys. 32, and Sys. 370.	*Multiple lines may be centered w. 1 command **Asyc. TTY ASCII full duplex to 9600 bps ***Line drawing Statistical Building Blocks, List, Merge ****300 rpm printer, fixed & floppy disk storage & others. *****See pg. S13-564-301. ****See pg. S13-564-301.	*Multiple lines may be centered w. 1 command **Asyc. TTY ASCII full duplex to 9600 bps ***Search & Replace, Auto Repagination, Statistical & others ****300 rpm printer, fixed & floppy disk storage & others. *****See pg. S13-564-301.

Multi-Terminal Word Processing Systems

COMPANY	Lanier	Lextron	NBI	NBI
MODEL	CS/SS-A	1630 Print Multiplexer*	System 8	System 64
SYSTEM CONFIGURATION				
System CPU / Controller	to 192K	1630	System 8 ICU	System 64 ICU
CPU / Controller Memory	to 4 disks, opt disk	84K to 96K	2 Mb	70 Mb
System Storage Media	600 chars / diskette	Diskette	Diskette / Disk	Diskette / Disk
Storage Capacity	By document name &	160 chars / diskette	173K-200K / 2 Mb	173K-200K / 2 Mb
File Organization	page number			
No Keystations Supported	1-6	—	—	—
No Printers Supported	1-3	—	—	—
DISPLAY FEATURES	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT
Screen Size & Type	8,000 chars	4K chars.	4K chars.	4K chars.
Display Buffer Memory	28 lines x 80 chars	16 lines x 80 chars	16 lines x 80 chars	16 lines x 80 chars
Format & Capacity	(2240 chars. total)	(2550 chars. total)	(1280 chars. total)	(1280 chars. total)
Character Generation	Dot matrix	9 x 16 dot matrix	9 x 16 dot matrix	9 x 16 dot matrix
Cursor Positioning	Left, right, up, down,	Left, right, up, down	Left, right, up, down	Left, right, up, down
Vertical Scrolling	home, end	next page, previous page	next page, previous page	next page, previous page
Horizontal Scrolling	Standard to 99 lines	Standard	Standard to 240 chars.	Standard to 240 chars.
Page Scrolling	Standard to 254 chars	Standard	Standard	Standard
Display Highlighting	None	Standard	Standard, underscore	Standard
Character Size Control	Standard	Standard	None	None
Character Pitch Display	None	Standard	None	None
Character Spacing Display	None	Standard	Displays line count	Displays line count
Line Spacing Display	None	Standard	None	Standard
Line Justify Display	Codes only	Standard	Standard	Standard
Underscore Display	Standard	Codes only**	Standard	Standard
Sub-Superscript Display	Standard	None	Standard	Standard
Multi-Column Page Display	Standard	Standard**	Standard	Standard
Stored Form Recall / Display	Standard	None	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Qume 45 cps daisy wh.	Qume daisy 55 cps*	Daisy wheel, 55 cps*	Daisy wheel, 55 cps*
Printer Buffer Memory	3,000 chars	10/12/15 proportional	10/12/15 proportional	10/12/15 proportional
Character Pitch / Spacing	6, 8, 10, 12, 15, prop.**	10/12	13 2"	13 2"
Writing Line Width	13" - 26" optional	13"	15"	15"
Carriage Paper Width	15" - 28" optional	15"	Standard	Standard
First Line Forms Advance	Standard	Standard	Standard	Standard
End Of Page Stop	Standard	Standard**	Standard	Standard
Justified Printout	Standard	Standard**	Standard	Standard
Sub-Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Media Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog / Menu Prompt	Standard	Standard	Standard	Standard
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	Standard	Margins only	Standard	Standard
Printout Queuing	Limited	None	Standard	Standard
Revision & Status Reporting	Optional	Standard	Optional	Standard
System Security	Optional	None	None	Standard
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard**	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	Manual scan before printout; semi-auto.	Manual scan before printout	Scan before print & operator decision	Scan before print & operator decision
REMARKS & OTHER FEATURES	*Non-intelligent terminals. The user has the option of adding up to 8 intelligent LTR-3 stand-alone word processors. **Available w. Advanced Print software pkg.	*Available with the Models 1201, 1202, and 1303 only. ***Qume wide track, twin track printers. ****Standard features on Model 1202 and 1303.	*40 cps proportional printer, Wide Track, Twin Track printers, line printer optional.	*40 cps proportional printer, Wide Track, Twin Track printers, line printer optional.

Multi-Terminal Word Processing Systems

COMPANY	Lanier	Lextron	NBI	NBI	COMPANY
MODEL	CS/SS-A	1630 Print Multiplexer	System 8	System 64	MODEL
TEXT INPUT (cont'd)	Standard	Standard	Standard	Standard	TEXT INPUT (cont'd)
Auto Input Underline	Centers between margins*	Standard	Standard	Standard	Auto Input Underline
Auto Centering	Standard	Standard	Standard	Auto Centering	Auto Centering
Auto Line Spacing	Standard	Standard	Standard	Standard	Auto Line Spacing
Auto Page Numbering	w/Text Assembly	Standard*	Standard*	Standard	Auto Page Numbering
Auto Headers/Footers	w/Text Assembly	Standard	Standard	Standard	Auto Headers/Footers
Auto Pagination	w/Text Assembly	Standard (Odd & Even)	Standard	Standard	Auto Pagination
"EXT EDIT & MERGE	Standard	Standard	Standard	Standard	"EXT EDIT & MERGE
Document Assembly/Merge	Optional	Standard	Standard	Standard	Document Assembly/Merge
Search Capability	Stored text assembled & merged w/keyboarded text	Stored text assembled & merged w/phrase dictionary entries or keyboarded text	Stored paras assembled & merged w/phrase dictionary entries or keyboarded text	Stored paras assembled & merged w/phrase dictionary entries or keyboarded text	Search Capability
Delete Capability	By document name, page no., cursor positioning C. W. L. P. remainder or specified block	By document & page no., cursor position C. L. document, specified block, paragraph, page	Standard*	Standard*	Delete Capability
Global Search & Replace	Optional	Standard	Standard	Standard	Global Search & Replace
Block Move/Copy	Standard	Standard	Standard	Standard	Block Move/Copy
Column Move/Delete	Standard	Standard*	Standard	Standard	Column Move/Delete
Auto Repagination	Optional	Standard*	Standard	Standard	Auto Repagination
Auto Widow Adjust	Standard	Standard	Standard	Standard	Auto Widow Adjust
Auto File Sort	None	None	Optional	Optional	Auto File Sort
Auto File Select	None	Standard	Optional	Optional	Auto File Select
Auto Footnote Tie-In	Optional w/Adv. Edit	None	Standard	Standard	Auto Footnote Tie-In
Term Dictionary/Glossary	None	None	Optional	Optional	Term Dictionary/Glossary
COMMUNICATIONS	Optional	Optional	Optional	Optional	COMMUNICATIONS
Availability	Synchronous Textran (Lanier internal half-duplex to 1200 bps)**	2780, 3780, 2741, or ASCII-compatible, or VT-VT	Asynchronous NBI ASCII, 2741, TWX, TTY	Asynchronous NBI ASCII, 2741, TWX, TTY	Availability
Format & Speed	Optional	None	Optional	Optional	Format & Speed
ARITHMETIC CAPABILITY	Adv. Edit, Adv. Print, Adv. Scientific***	BASIC Interpreter, Math, Records Processing**	Stat/Math Equation, Records & Form Process	Stat/Math Equation, Records & Form Process	ARITHMETIC CAPABILITY
EDP CAPABILITY	OCR Scanner, Communications, Wide Track printer, Twin Track printer, Twin Track printer****	OCR, mag card adaptor, Wide & Twin Track printers, Speed Feed	Six printer options, sheet feeder, add'l diskette drive, OCR, photocomp.	Six printer options, sheet feeder, add'l diskette drive, OCR, photocomp.	EDP CAPABILITY
Multiprogramming	November 1979	September, 1980	—	—	Multiprogramming
Compilers	—	USA	USA	USA	Compilers
Applications Software	****	**	\$31,900**	\$118,900**	Applications Software
PERIPHERALS	****	**	—	—	PERIPHERALS
BACKGROUND INFO.	****	**	\$1,420 (2 yr.) incl. maint.	\$7,130 (2 yr.) incl. maint.	BACKGROUND INFO.
First Delivery Date	****	**	—	—	First Delivery Date
Country of Manufacture	****	**	—	—	Country of Manufacture
Installed Base Estimate	****	**	—	—	Installed Base Estimate
PRICING & TERMS	****	**	—	—	PRICING & TERMS
Purchase	****	**	—	—	Purchase
Rental	****	**	—	—	Rental
Lease	****	**	—	—	Lease
Maintenance	****	**	—	—	Maintenance
Warranty & Support	90 day warranty	90 days, parts & labor on purchase	90 day warranty	90 day warranty	Warranty & Support
REMARKS & OTHER FEATURES	*Multiple lines may be centered w. 1 command.	*Standard features on 1202 and 1303.	*Arabic or Roman numbering, top or bottom of page.	*Arabic or Roman numbering, top or bottom of page.	REMARKS & OTHER FEATURES
	**Sync. TTY-ASCII full duplex to 9600 bps.	**Prices vary depending upon system configuration and options.	**Includes System 64, ICU, 32 OASys Ports, 7 Model II Workstations, 3000 dual disk drive, 3000 single disk drive, 2 40-cps prop. printers, Twin Track printer, 300 lpm printer.	**Includes System 64, ICU, 32 OASys Ports, 7 Model II Workstations, 3000 dual disk drive, 3000 single disk drive, 2 40-cps prop. printers, Twin Track printer, 300 lpm printer.	

Multi-Terminal Word Processing Systems

COMPANY	Nixdorf	Q1 Corporation	Royal	Syntex
MODEL	Multi-Text 8840	Q1/Lite	7000 Shared System	Shared System
SYSTEM CONFIGURATION				
System CPU / Controller	Nixdorf 600 / 30	Q1 Lite	Royal CPU	Syntex
CPU Controller Memory	64K	64K	96K	256K
System Storage Media	Disk & diskette*	Disk and/or diskette	Diskette / Disk	Winchester Disk
Storage Capacity	5 Mb disk	5Mb, 25Mb, 54Mb disk	85,000 char. disk . 5Mb	5 Mb 120 Mb
File Organization	By document	By document	By document	4.14
No Keystations Supported	2 (min), 4 (max)	16	6	2
No Printers Supported	4	16		
DISPLAY FEATURES				
Screen Size & Type	12" diagonal CRT	Gas plasma 9" diag	10½" x 8"	15" diagonal screen
Display Buffer Memory	1920 chars.	24 lines x 40 chars	1920 chars.	25 line by 80 char (2000 char. total)
Format & Capacity	24 lines x 80 chars (1920 chars. total)	5 x 7 dot matrix	10 x 12 dot matrix	7 x 9 dot matrix
Character Generation	8 x 8 dot matrix	Left, right, up, down	L. R. up, down, home	Up, down, left, right, word, sentence, para
Cursor Positioning	Left, right, up, down			
Vertical Scrolling	Standard	Standard	Standard	Standard
Horizontal Scrolling	Standard	—	Standard	Standard
Page Scrolling	Standard	—	Standard	Standard
Display Highlighting	Standard	Standard	Standard	Standard
Character Size Control	None	None	Standard	Optional*
Character Pitch Display	None	None	Standard	Optional*
Character Spacing Display	Standard	Standard	Standard	Standard
Line Spacing Display	Standard	Code only	Standard	Standard
Line Justify Display	Standard	Code only	Codes only	Standard
Underscore Display	Standard	None	Standard	Standard
Sub/Superscript Display	Manual	Standard	Standard	Standard
Multi-Column Page Display	Limited	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Daisy wh. 40 or 45 cps	Daisy wheel, 45 cps	Gume 55 cps daisy wh
PRINTER FEATURES				
Printer Type & Speed	Diallo daisy 45 cps	—	—	—
Printer Buffer Memory	138 chars.	10/11/12' prop	10/12/15' proportional	10/12/15' proportional
Character Pitch/ Spacing	10½'	13½"	13"	13 2"
Writing Line Width	13"	15"	15"	15"
Carriage Paper Width	15"	Standard	Standard	Standard
First Line Form Advance	Standard	Standard	Standard	Standard
End Of Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjus Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Media-Storage Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog/ Menu Prompt	Standard	Limited cueing	Standard	1 main menu, 12 sub-menus, prompts
Forms Input	None	Standard	Standard	Optional**
Control Character Printout	Standard	None	Standard	None
Printout Queuing	Standard	Standard	Standard	—
Revision & Status Reporting	Optional	Standard	Standard	—
System Security	Standard	File protect	Standard	Standard
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	2 to 10 char adjustable	Manual, adjustable hot zone	Manual, hyphenation dictionary optional***	—
REMARKS & OTHER FEATURES	*1 standard, 2 optional 250K char./diskette			*Syntex Gemini and Capricorn **Basic software option ***Advanced Function package

Multi-Terminal Word Processing Systems

Nixdorf	Q1 Corporation	Royal	Syntex	COMPANY
Multi-Text 8840	Q1/Lite	7000 Shared System	Shared System	MODEL
Standard	Standard	Standard	Standard	TEXT INPUT (cont'd) Auto Input Underline Auto Centering
Standard	Standard	Standard	Standard	Auto Line Spacing Auto Page Numbering Auto Headers / Footers Auto Pagination
Standard	Standard	Standard	Standard	TEXT EDIT & MERGE Document Assembly/Merge
Standard	Standard	Standard	Standard	Search Capability
Standard	Standard	Standard	Standard	Delete Capability
Standard	Standard	Standard	Standard	Global Search & Replace
Standard	Standard	Standard	Standard	Block Move/Copy
Standard	Standard	Standard	Standard	Column Move/Delete
Standard	Standard	Standard	Standard	Auto Repagination
Standard	Standard	Standard	Standard	Auto Widow Adjust
Standard	Standard	Standard	Standard	Auto File Sort
Standard	Standard	Standard	Standard	Auto File Select
Standard	Standard	Standard	Standard	Auto Footnote Tie-In Term Dictionary/Glossary
Standard	Standard	Standard	Standard	COMMUNICATIONS Availability Format & Speed
Optional IBM 2780 3780 compatible	Optional	Optional	Optional	ARITHMETIC CAPABILITY EDP CAPABILITY
None	Optional	Optional	Optional	Multiprogramming Compilers
None	Standard	None	None	Applications Software
None	PL1	None	None	PERIPHERALS
Detailed Doc Info	Available	Math package	None	BACKGROUNDS INFO. First Delivery Date Country of Manufacture Installed Base Estimate PRICING & TERMS Purchase
Line printers	200 cps matrix printer, 300-600 lpm line printer, TI 810 printer, Epson prINTER	OCR, frame computer, wide track printer, tractor feed, sheet feeder RS232	Comm., Shared Device Interface, Clustered Sys Connect, Adv. Functions Pkg., Doc. ***	Rental
April 1979 USA	1977 USA 2,000 world wide	— USA	— — —	Lease
\$28,660**	\$14,000-\$15,000	To be announced	\$25,500***	Maintenance
\$801 (12-mo)**	None	To be announced	\$1,252 (2-yr.)	Warranty & Support
—	Available upon request	To be announced	\$175	REMARKS & OTHER FEATURES
\$299 mo **	90 days	To be announced	90 days	
90 day warranty	•Thermal printer, 20 30 Mb Mag Tape Unit, 24 Mb Winchester Drive •Includes 1 work station, 2 mini-diskette drives. WP software, 45 cps daisywheel printer	90 days, key operator training, MSR support	•Advanced Function Pkg •Basic Software option ***Doc assemble/merge, Forms Feeder, OCR and Advanced Communications (Capricorn only). ****Includes Aquarius workstation, Gemini File Cabinet, and Doc assemble/merge	
*Paragraph Assembly Package optional **Includes CPU, 2 workstations, 1 printer				

Multi-Terminal Word Processing Systems

COMPANY	Telex Terminal Comm.	Wang	Wang	Wang
MODEL	2100 GAT*	WPS 20	WPS 25	WPS 30
SYSTEM CONFIGURATION				
System CPU / Controller	Dual Intel 8080A	8080 microprocessors	8080 microprocessors	8080 microprocessors
88K		16K station, 32K CPU	16K station, 32K CPU	16K station, 32K CPU
Diskette	Diskette	Diskette	Disk & diskette	Disk & diskette
Storage Capacity	250K chars. /diskette	300K chars. /diskette	125.25 or 5 Mb disc*	10Mb/275Mb to 825Mb*
File Organization	By document (max. 30)	By document & page no	By document & page no	By document & page no
No Keystrokes Supported	3	3	6 I/O devices (Mod. 1)	14 workstations /printers
No Printers Supported	1	3	14 I/O dev. (Mod. 2 & 3)	14 workstations /printers
DISPLAY FEATURES				
Screen Size & Type	15" diagonal CRT	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT
Display Buffer Memory	1920 chars	8K	8K	8K
Format & Capacity	24 lines x 80 chars	(1920 chars. total)	24 lines x 80 chars	(1920 chars. total)
Character Generation	(1920 chars. total)	7 x 8 dot matrix	8 x 8 dot matrix	8 x 8 dot matrix
Cursor Positioning	Left, right, up, down, top/bottom of page	Left, right, up, down, home, rev, home	Left, right, up, down, home, rev, home	Left, right, up, down, home, rev, home
Vertical Scrolling	Standard	Standard	Standard	Standard
Horizontal Scrolling	None	Standard	Standard	Standard
Page Scrolling	Standard	Standard	Standard	Standard
Display Highlighting	Intensify, reverse	Intensify	Intensify	Intensify
Character Size Control	None	None	None	None
Character Pitch Display	None	None	None	None
Character Spacing Display	None	None	None	None
Line Spacing Display	None	None	None	None
Line Justify Display	Standard	Standard	Standard	Standard
Underline Display	Standard	Codes only	Codes only	Codes only
Sub-Subscript Display	Codes only	Standard	Standard	Standard
Multi-Column Page Display	None	Standard	Standard	Standard
Form Format/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Daisy wheel 30 cps	Daisy wheel 40 cps*	Daisy wheel 40 cps**	Daisy wheel 40 cps*
Printer Buffer Memory	4560 chars	16K	16K	16K
Character Pitch / Spacing	Proportional	10.12" prop	10.12" prop	10.12" prop
Writing Line Width	13.2"	13.2"	13.2"	13.2"
Carrage Paper Width	15"	15"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End Of Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard (interword sp.)	Standard (interword sp.)	Standard (interword sp.)
Sub-Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	None	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Media-Store Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog/Menu Prompt	Standard	Standard	Standard	Standard
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	Standard	None	None	Standard
Printout Queuing	Standard	Standard	Standard	Standard
Revision & Status Reporting	Via Index & File directory	Via Index entries	Via Index entries	Via Index entries
System Security	Diskette assigned to specific terminal	Optional 3-level password	Optional 3-level password	Optional 3-level password
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	None	Standard	Standard	Standard
Hyphenation	Discretionary, dictionary** & algorithm	System scan before printout, operator decision	System scan before printout, operator decision	System scan before printout, operator decision
REMARKS & OTHER FEATURES	*Graphic Arts Terminal **3,000-word standard, can be edited & printed.	*120 cps, 200 cps, & 40 cps wide carriage also available	*300 char./diskette Model 1 1.25 Mb disc, Model 2 2.5 Mb disc, Model 3 5 Mb disc, all single diskette **120 cps, 200 cps, 425 lpm & 40 cps wide carriage also available	*120 cps, 200 cps, 425 lpm & 40 cps wide carriage also available

Multi-Terminal Word Processing Systems

Telex Terminal Comm.	Wang	Wang	Wang	COMPANY
2100 GAT	WPS 20	WPS 25	WPS 30	MODEL
None	Standard	Standard	Standard	TEXT INPUT (cont'd)
Standard	Centers between margins	Centers between margins	Centers between margins	Auto Input Underline
Standard	Standard	Standard	Standard	Auto Centering
Standard	Standard	Standard	Standard	Auto Line Spacing
None	Standard	Standard	Standard	Auto Page Numbering
None	Standard	Standard	Standard	Auto Headers/Footers
None	Standard	Standard	Standard	Auto Pagination
None	Standard	Standard	Standard	TEXT EDIT & MERGE
None	Standard	Standard	Standard	Document Assembly/Merge
None	Standard	Standard	Standard	Search Capability
None	Standard	Standard	Standard	Delete Capability
None	Standard	Standard	Standard	Global Search & Replace
None	Standard	Standard	Standard	Block Move/Copy
None	Standard	Standard	Standard	Column Move/Delete
None	Standard	Standard	Standard	Auto Repagination
None	Standard	Standard	Standard	Auto Widow Adjust
None	Standard	Standard	Standard	Auto File Sort
None	Standard	Standard	Standard	Auto File Select
None	Standard	Standard	Standard	Auto Footnote Tie-In
None	Standard	Standard	Standard	Term Dictionary/Glossary
None	Standard	Standard	Standard	COMMUNICATIONS Availability
None	Standard	Standard	Standard	Format & Speed
None	Standard	Standard	Standard	ARITHMETIC CAPABILITY
None	Standard	Standard	Standard	EDP CAPABILITY
None	Standard	Standard	Standard	Multiprogramming
None	Standard	Standard	Standard	Compilers
None	Standard	Standard	Standard	Applications Software
1977	September 1976	May 1978	September 1976	PERIPHERALS
USA	USA	USA	USA	BACKGROUND INFO.
25	50,000+ workstations*	50,000+ workstations**	50,000+ workstations**	First Delivery Date
\$17,800**	\$16,600**	\$22,100 (Model 1)***	\$27,100***	Country of Manufacture
Not Available	\$781** incl maint. (1 yr terms)	\$25,600 (Model 3)***	\$1,274*** incl. maint. (1 yr terms)	Installed Base Estimate
3rd party only	Available upon request	\$1,039*** (incl. maint.)	Available upon request	Pricing & TERMS Purchase
By mfr	\$101 mo. leased or purchased systems**	\$1,204*** (incl. maint.)	\$250 mo. leased or purchased systems***	Rental
90 days	90 day warranty, ongoing support	90 day warranty, ongoing support	90 day warranty, ongoing support	Lease
3 days N.C. operator training				Maintenance
*Also user-created hyphenation dictionary.	*For Wang WP/OIS series	*Archiving Workstation, mag card reader	*Archiving Workstation, mag card reader	Warranty & Support
**Includes 1 display station, dual diskettes & 1 30 cps printer	**Includes work station, printer, CPU & dual diskette drives	**For Wang WP/OIS series	**For Wang WP/OIS series	REMARKS & OTHER FEATURES
		***Includes work station, printer, CPU, disk controller & single diskette	***Includes work station, printer, CPU, disk controller & single diskette	

Multi-Terminal Word Processing Systems

COMPANY	Wang	Wang	Wang	Wang
MODEL	OIS 105	OIS 115	OIS 125A	OIS 130A
SYSTEM CONFIGURATION				
System CPU/ Controller	Z80 microprocessors	Z80 microprocessors	Z80 microprocessors	Z80 microprocessors
CPU/ Controller Memory	64K CPU, 32K works.	64K CPU, 32K works.	64K CPU, 32K works.	64K CPU, 32K works.
System Storage Media	Disk & diskette	Disk & diskette	Disk & diskette	Disk & diskette
Storage Capacity	2.5 Mb disk*	2 or 8 Mb disk*	5 Mb disk, 300K disk*	10 to 20 Mb disk*
File Organization	By document & page	By document & page	By document & page	By document & page
No Keystrokes Supported	2	8	16 works./printers	16 works./printers
No Printers Supported	2	8	16 works./printers	16 works./printers
DISPLAY FEATURES	12" diagonal CRT 8K	12" diagonal CRT 8K	12" diagonal CRT 8K	12" diagonal CRT 8K
Screen Size & Type	24 lines x 80 chars. (1920 chars. total)	24 lines x 80 chars. (1920 chars. total)	24 lines x 80 chars. (1920 chars. total)	24 lines x 80 chars. (1920 chars. total)
Display Buffer Memory	8 x 8 dot matrix	8 x 8 dot matrix	8 x 8 dot matrix	8 x 8 dot matrix
Format & Capacity	Left, right, up, down, home, rev home	Left, right, up, down, home, rev home	Left, right, up, down, home, rev home	Left, right, up, down, home, rev home
Character Generation	Standard	Standard	Standard	Standard
Cursor Positioning	Standard	Standard	Standard	Standard
Vertical Scrolling	Standard	Standard	Standard	Standard
Horizontal Scrolling	Standard	Standard	Standard	Standard
Page Scrolling	Standard	Standard	Standard	Standard
Display Highlighting	Intensify	Intensify	Intensify	Intensify
Character Size Control	None	None	None	None
Character Pitch Display	None	None	None	None
Character Spacing Display	None	None	None	None
Line Spacing Display	None	None	None	None
Line Justify Display	None	None	None	None
Underscore Display	Standard	Standard	Standard	Standard
Sub-/Superscript Display	Codes only	Code only	Code only	Code only
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Form Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Daisy wheel 40 cps**	Daisy wheel 40 cps*	Daisy wheel 40 cps*	Daisy wheel 40 cps**
Printer Buffer Memory	16K	16K	16K	16K
Character Pitch / Spacing	10/12" prop.	10/12" prop.	10/12" prop.	10/12" prop.
Writing Line Width	13 2"	13 2"	13 2"	13 2"
Carriage Paper Width	15	15	15	15
First Line Form Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard (interword sp.)	Standard (interword sp.)	Standard (interword sp.)	Standard (interword sp.)
Sub-/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bi-directional Printout	Standard	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Media-Selected Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog/ Menu Prompt	Standard	Standard	Standard	Standard
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	None	None	Standard	Standard
Printout Queuing	Standard	Standard	Standard	Standard
Revision & Status Reporting	Via Index entries	Via Index entries	Via Index entries	Via Index entries
System Security	Standard, 3-level pass-word	Standard, 3-level pass-word	Standard, 3-level pass-word	Standard, 3-level pass-word
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab	Standard	Standard	Standard	Standard
Hyphenation	System scan before printout	System scan before printout	System scan before printout	System scan before printout
REMARKS & OTHER FEATURES	*300K char./diskette **Also 120- or 200-cps line printer, 425-lpm printer, Twin Head printer, Image Printer, Wide Carriage Printer.	*300K chars./diskette **Also 120- or 200-cps line printer, 425-lpm printer, Twin Head printer, Image Printer, Wide Carriage Printer.	*Also 120- or 200-cps line printer, 425-lpm printer, Twin Head printer, Image Printer, Wide Carriage Printer.	*300K chars./diskette **Also 120- or 200-cps line printer, 425-lpm printer, Twin Head printer, Image Printer, Wide Carriage Printer.

Multi-Terminal Word Processing Systems

Wang	Wang	Wang	Wang	COMPANY
OIS 105	OIS 115	OIS 125	OIS 130	MODEL
Standard Centers between margins	Standard Centers between margins	Standard Centers between margins	Standard Centers between margins	TEXT INPUT (cont'd) Auto Input Underline Auto Centering
Standard	Standard	Standard	Standard	Auto Line Spacing Auto Page Numbering Auto Headers/Footers Auto Pagination
Standard	Standard	Standard	Standard	TEXT EDIT & MERGE Document Assembly/Merge
Standard	Standard	Standard	Standard	Search Capability
Standard	Standard	Standard	Standard	Delete Capability
Standard	Standard	Standard	Standard	Global Search & Replace
Standard	Standard	Standard	Standard	Block Move/Copy
Standard	Standard	Standard	Standard	Column Move/Delete
Standard	Standard	Standard	Standard	Auto Repagination
Standard	Standard	Standard	Standard	Auto Widow Adjust
Standard	Standard	Standard	Standard	Auto File Sort
Standard	Standard	Standard	Standard	Auto File Select
Standard	Standard	Standard	Standard	Auto Footnote Tie-In Term Dictionary/Glossary
Standard	Standard	Standard	Standard	COMMUNICATIONS Availability Format & Speed
Standard	Standard	Standard	Standard	ARITHMETIC CAPABILITY EDP CAPABILITY Multiprogramming Compilers
Standard	Standard	Standard	Standard	Applications Software
Standard	Standard	Standard	Standard	PERIPHERALS
December 1980 USA 50,000+**	December 1980 USA 50,000+**	September 1979 USA 50,000+ workstations***	March 1979 USA 50,000+ workstations***	BACKGROUND INFO First Delivery Date Country of Manufacture Installed Base Estimate PRICING & TERMS Purchase
89,300	\$13,400 to \$15,400	\$19,600	\$22,600	Rental
\$6515/mo. (1 yr) \$6465/mo. (2 yr) Available upon request	\$740-850/mo. (1-yr)*** \$670-970/mo. (2-yr)*** Available upon request	\$1,000/mo. (1 year)**** \$735/mo. (2 year)**** Available upon request	\$1,150/mo. (1 year)**** \$1,085/mo. (2 year)**** Available upon request	Lease
\$95	\$120 to \$132/mo.	\$198/mo.	\$198/mo.	Maintenance
90 day warranty, on-going support	Warranty & Support			
*OCR, mag card reader, typesetter 48, wide carriage printer, Twin Head printer, Image Printer, Wide Carriage Printer.	*OCR, mag card reader, typesetter 48, wide carriage printer, Twin Head printer, Image Printer, Wide Carriage Printer.	*OCR, mag card reader, typesetter 48, wide carriage printer, Twin Head printer, Image Printer, Wide Carriage Printer.	*OCR, mag card reader, typesetter 48, wide carriage printer, Twin Head printer, Image Printer, Wide Carriage Printer.	REMARKS & OTHER FEATURES
**Also 120- or 200-cps line printer, 425-lpm printer, Twin Head printer, Image Printer, Wide Carriage Printer.	**Also 120- or 200-cps line printer, 425-lpm printer, Twin Head printer, Image Printer, Wide Carriage Printer.	**Also 120- or 200-cps line printer, 425-lpm printer, Twin Head printer, Image Printer, Wide Carriage Printer.	**Also 120- or 200-cps line printer, 425-lpm printer, Twin Head printer, Image Printer, Wide Carriage Printer.	
***Includes maint., depends on model				

Multi-Terminal Word Processing Systems

COMPANY	Wang	Wang	Wordplex	Wordplex*
MODEL	OIS 140	OIS 145	Wordplex/4	Wordplex/7
SYSTEM CONFIGURATION				
System CPU / Controller	Z80 microprocessors	Wordplex/4 CPU	Wordplex/7 CPU	
CPU / Controller Memory	64K CPU, 32K worksita	64K	128K	
System Storage Media	Disk & diskette	Disk cartridge	Disc	
Storage Capacity	26.8 to 80 Mb disk*	16Mb fixed**	80-300 Mb/disk	
File Organization	By document & page	Document & page no.	By document & page no.	
No Keystrokes Supported	24	6	24	
No Printers Supported	8	4	12	
DISPLAY FEATURES				
Screen Size & Type	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT	
Display Buffer Memory	8K	10,000 chars	10,000 chars	
Format & Capacity	24 lines x 80 chars. (1920 chars. total)	24 lines x 80 chars. (1920 chars. total)	24 lines x 80 chars. (1920 chars. total)	
Character Generation	8 x 8 dot matrix	7 x 11 dot matrix	7 x 11 dot matrix	
Cursor Positioning	Left, right, up, down, home, rev home	Left, right, up, down, home, rev home	Left, right, up, down, home	
Vertical Scrolling	Standard	Standard	Standard	
Horizontal Scrolling	Standard	Standard	Standard	
Page Scrolling	Standard	Standard	Standard	
Display Highlighting	Intensify	None	None	
Character Size Control	None	None	None	
Character Pitch Display	None	Standard	Standard	
Character Spacing Display	None	Standard	Standard	
Line Spacing Display	None	Standard	Standard	
Line Justify Display	Standard	Codes only	Codes only	
Underscore Display	Codes only	Code only	Standard	
Sub-/Superscript Display	Standard	Standard	Standard	
Multi-Column Page Display	Standard	Standard	Standard	
Stored Form Recall/Display	Standard	Standard	Standard	
Control Code Display	Standard	Standard	Standard	
Format Statement Display	Daisy wheel 40 cps**	Daisy wheel 45/55 cps	Daisy wheel 45/55 cps	
PRINTER FEATURES				
Printer Type & Speed	16K	256 chars	256 chars	
Printer Buffer Memory	10-12. prop	10/12/15	10/12/15	
Character Pitch / Spacing	13.2"	13.2"	13.2"	
Writing Line Width	15"	15"	15"	
Carriage Paper Width	Standard	Standard	Standard	
First Line Forms Advance	Standard	Standard	Standard	
End Of Page Stop	Standard (interword sp.)	Standard (interword sp.)	Standard	
Justified Printout	Standard	Standard	Standard	
Sub-Superscript Printout	Standard	Standard	Standard	
Non-Adjust Printout	Standard	Standard	Standard	
Bi-directional Printout	Standard	Standard	Standard	
Simultaneous Printout	Standard	Standard	Standard	
GENERAL FEATURES				
Media Stored Format	Standard	Standard	Standard	
Default Format Statement	Standard	Standard	Standard	
Stored Multiple Formats	Standard	Standard	Standard	
Machine Dialog/Menu Prompt	Standard	Standard	Standard	
Forms Input	Standard	Standard	Standard	
Control Character Printout	None	—	Standard	
Printout Queuing	Standard	Standard	Standard	
Revision & Status Reporting	Via Index entries	Via Index entries	2-level log-on password	2-level log-on password
System Security	Standard, 3-level pass-word	Standard, 3-level pass-word	2-level log-on password	2-level log-on password
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	
Auto Word Wraparound	Standard	Standard	Standard	
Auto Margin Adjust	Standard	Standard	Standard	
Temporary Margins	Standard	Standard	Standard	
Auto Decimal Tab	Standard	Standard	Standard	
Hyphenation	System scan before printout	System scan before printout	Manual scan before semi-auto	Manual, adjustable Hot Zone
REMARKS & OTHER FEATURES	"300K char / diskette **Also 120- or 200-cps line printer, 425-lpm printer, Twin Head printer, Image Printer, Wide Carriage Printer	*300K chars / diskette **Also 120- or 200-cps line printer, 425-lpm printer, Twin Head printer, Image Printer, Wide Carriage Printer	*Dist. in US by Lanier **16Mb removable Optional 2 x 80 Mb disk	*Dist. in US by Lanier

Multi-Terminal Word Processing Systems

COMPANY	Wang	Wang	Wordplex*	Wordplex*	MODEL
	OIS 140	OIS 145	Wordplex/4	Wordplex/7	TEXT INPUT (cont'd) Auto Input Underline Auto Centering
Standard Features	Standard Centers between margins	Standard Centers between margins	Standard	Standard	Auto Line Spacing Auto Page Numbering Auto Headers/Footers Auto Pagination TEXT EDIT & MERGE Document Assembly/Merge
Text Assembled & Merged	Standard	Standard	Standard	Standard	Search Capability
Text to Form New Document	Standard	Standard	Standard	Standard	Delete Capability
Text to Form New Document	Standard	Standard	Standard	Standard	Global Search & Replace
Text to Form New Document	Standard	Standard	Standard	Standard	Block Move/Copy
Text to Form New Document	Standard	Standard	Standard	Standard	Column Move/Delete
Text to Form New Document	Standard	Standard	Standard	Standard	Auto Repagination
Text to Form New Document	Standard	Standard	Standard	Standard	Auto Widow Adjust
Text to Form New Document	Standard	Standard	Standard	Standard	Auto File Sort
Text to Form New Document	Standard	Standard	Standard	Standard	Auto File Select
Text to Form New Document	Standard	Standard	Standard	Standard	Auto Footnote Tie-in Term Dictionary/Glossary
Text to Form New Document	Standard	Standard	Standard	Standard	COMMUNICATIONS Availability Format & Speed
Text to Form New Document	Standard	Standard	Standard	Standard	ARITHMETIC CAPABILITY EDP CAPABILITY Multiprogramming Compilers
Text to Form New Document	Standard	Standard	Standard	Standard	Applications Software
Text to Form New Document	Standard	Standard	Standard	Standard	PERIPHERALS
Text to Form New Document	Standard	Standard	Standard	Standard	BACKGROUND INFO: First Delivery Date Country of Manufacture Installed Base Estimate PRICING & TERMS Purchase
Text to Form New Document	Standard	Standard	Standard	Standard	Rental
Text to Form New Document	Standard	Standard	Standard	Standard	Lease
Text to Form New Document	Standard	Standard	Standard	Standard	Maintenance
Text to Form New Document	Standard	Standard	Standard	Standard	Warranty & Support
Text to Form New Document	Standard	Standard	Standard	Standard	REMARKS & OTHER FEATURES

Multi-Terminal Word Processing Systems

COMPANY	World Information Sys.	Xerox	XMark	XMark
MODEL	TDS 16A/16B/16C	Visual Type 3	Mini Cluster	Maxi Cluster
SYSTEM CONFIGURATION				
System CPU/Controller	Interdata 1610/1620/1630	Hewlett-Packard 21MX	Office Master	Office Master
CPU/Controller Memory	32K to 256K	5 Mb to 320 Mb	64K	64K
System Storage Media	Disc (1 to 16)	Disc	Disk or diskette	Disk or diskette
Storage Capacity	50 and/or 200 Mb/disc	—	1.4Mb/diski 600K(disk)	Up to 192Mb
File Organization	By document name, page & line	By document	Document page	Document page
No Keystrokes Supported	64	10	Up to 5	Up to 40
No Printers Supported	64	10	Up to 5	Up to 40
DISPLAY FEATURES				
Screen Size & Type	12" diagonal CRT*	8" x 10" CRT	14" diagonal	14" diagonal
Display Buffer Memory	24 lines x 80 chars (1920 chars total)	8190 chars	90 lines	90 lines
Format & Capacity	9 x 12 dot matrix	10 x 12 dot matrix	24 lines x 80 chars	24 lines x 80 chars
Character Generation	Left, right, up, down, home	Left, right, up, down, home	11 x 13 dot matrix	11 x 13 dot matrix
Cursor Positioning	Standard	Standard	Left, right, up, down, home, end/begin of line	Left, right, up, down, home, end/begin of line
Vertical Scrolling	Horizontal Scrolling	By scrollable	10 lines/comm or cont	10 lines/comm or cont
Page Scrolling	Standard	Standard	To 160 characters	To 160 characters
Display Highlighting	Standard	Standard	None	None
Character Size Control	None	Standard	Flash, intensity, rev	Flash, intensity, rev
Character Pitch Display	None	Standard	None	None
Character Spacing Display	None	Standard	None	None
Line Spacing Display	Standard	Standard	None	None
Underline Display	Standard	Standard	Line & dotted line	Line & dotted line
Underscore Display	Standard	Standard	Highlighted (blinking)	Highlighted (blinking)
Sub-/Superscript Display	Codes only	Standard	Standard	Standard
Multi-Column Page Display	Standard	Standard	Operator option	Operator option
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Formatted Screen Display	Qume daisy wh 45/55 cps	Diablo daisy 35 cps	45/55 cps daisy wheel	45/55 cps daisy wheel
ENTRANCE FEATURES				
Printer Type & Speed	256 bytes	45/55 cps daisy wheel	160 chars	160 chars
Character Pitch/Spacing	10/12 prop	10/12 prop	10/12 proportional	10/12 proportional
Writing Line Width	13.2"	13"	13"	13"
Carriage Paper Width	15"	15"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End of Page Report	Standard	Standard	Standard	Standard
Justified Printout	Standard**	Standard	Standard	Standard
Sub-/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bi-directional Printout	None	Standard	Standard	Standard
Simultaneous Printout	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Media Stored Format	Standard	Standard	Standard	Standard
Default Format Statement	Standard	Standard	—	—
Stored Multiple Formats	Standard	Standard	—	—
Machine Dialog/Menu Prompt	Standard user variable	Prompts & command verification	Displays operator's options	Displays operator's options
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	Standard	Standard	None	Standard
Printout Queuing	Standard	Standard	None	Standard
Revision & Status Reporting	Standard via index, job entries	Standard	—	—
System Security	Document, job & operator passwords, CPU keylock***	10-level document protection passwords	—	—
TEXT INPUT FEATURES				
Auto Carrier Return	Standard	Standard	Standard	Standard
Auto Word Wraparound	Standard	Standard	Standard	Standard
Auto Margin Adjust	Standard	Standard	Standard	Standard
Temporary Margins	Standard	Standard	Standard	Standard
Auto Decimal Tab Hyphenation	Standard Automatic algorithm + dictionary	Standard Algorithm & dictionary	rows, center zone	rows, center zone
REMARKS & OTHER FEATURES	*30-line by 132 char CRT avail Any display or printer terminal with RS-232 interface can be used with the system **Inter-letter word spacing ***Meets military specs			

Multi-Terminal Word Processing Systems

COMPANY	MODEL	World Information Sys.	Xerox	XMark	XMark	COMPANY
	TEXT INPUT (cont'd)	TDS 16A/16B/16C	Visual Type 3	Mini Cluster	Maxi Cluster	
	Auto Input Underline	Standard	Standard	Standard	Standard	
	Typewriters	Standard	Standard	Standard	Standard	
	Auto Centering	Standard	Standard	Standard	Standard	
	Auto Line Spacing	Standard	Standard	Standard	Standard	
	Auto Page Numbering	Standard	Standard	Standard	Standard	
	Auto Headers/Footers	Standard	Standard	Standard	Standard	
	Auto Pagination	Standard	Standard	Standard	Standard	
	TEXT EDIT & MERGE	Standard	Standard	Standard	Standard	
	Document Assembly/Merge	Standard	Standard	Standard	Standard	
	Search Capability	Standard	Standard	Standard	Standard	
	Delete Capability	Standard	Standard	Standard	Standard	
	Global Search & Replace	Standard	Standard	Standard	Standard	
	Block Move/Copy	Standard	Standard	Standard	Standard	
	Column Move/Delete	Standard	Standard	Standard	Standard	
	Auto Repagination	Standard	Standard	Standard	Standard	
	Auto Widow Adjust	Standard	Standard	Standard	Standard	
	Auto File Sort	Standard	Standard	Standard	Standard	
	Auto File Select	Standard	Standard	Standard	Standard	
	Auto Footnote Tie-In	Standard	Standard	Standard	Standard	
	Term Dictionary/Glossary	Standard	Standard	Standard	Standard	
	COMMUNICATIONS	Standard	Standard	Standard	Standard	
	Availability	Standard	Standard	Standard	Standard	
	Format & Speed	Standard	Standard	Standard	Standard	
	ARITHMETIC CAPABILITY	Standard	Standard	Standard	Standard	
	EDP CAPABILITY	Standard	Standard	Standard	Standard	
	Multiprogramming	Standard	Standard	Standard	Standard	
	Compilers	Standard	Standard	Standard	Standard	
	Applications Software	Standard	Standard	Standard	Standard	
	PERIPHERALS	Standard	Standard	Standard	Standard	
	BACKGROUND INFO.	Standard	Standard	Standard	Standard	
	First Delivery Date	Standard	Standard	Standard	Standard	
	Country of Manufacture	Standard	Standard	Standard	Standard	
	Installed Base Estimate	Standard	Standard	Standard	Standard	
	PRICING & TERMS	Standard	Standard	Standard	Standard	
	Purchase	Standard	Standard	Standard	Standard	
	Rental	Standard	Standard	Standard	Standard	
	Lease	Standard	Standard	Standard	Standard	
	Maintenance	Standard	Standard	Standard	Standard	
	Warranty & Support	Standard	Standard	Standard	Standard	
	REMARKS & OTHER FEATURES	Standard	Standard	Standard	Standard	

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