Setting up a Word Processing Microlab

In general, setting up a dedicated word-processing cluster will proceed more smoothly if details and contingencies have been worked out in advance. Both internal and external proposals should address the following concerns:

**General Approach and Number of Workstations:** Two approaches are possible: word processing can be integrated as a part of regular class time, or word-processing stations can serve as production centers for class writing assignments. Each approach requires a different formula for determining the number of workstations needed.

**WORD PROCESSING AS CLASS ACTIVITY**

The greatest harnessing of word-processing power is achieved, perhaps, in the classroom itself. In-class writing activities—the kind which students now handwrite—can be more carefully controlled, including an increased use of revision strategies. If word processing is to be integrated as a classroom activity, then a cluster should provide one terminal for each student and the professor. Sections with 25 students should, therefore, have 26 workstations. Courses with 3-4 credit hours will typically spend one hour in the microlab. Such a configuration should consider the additional use of network controllers to allow interactive up- and down-loading between students and the host professor. Likewise, a large-screen or projection monitor can provide dynamic group instruction.

**WORD PROCESSING AS NON-CLASS PRODUCTION ACTIVITY**

A production-oriented word processing center is independent of class time, allowing students to compose and revise on-screen. Carefully scheduled, two workstations can support the writing needs of one writing section. In addition, one printer can serve two workstations—or a single printer can queue a much larger number of workstations. Likewise, a multi-mode dot-matrix printer can provide both a higher-speed hardcopy for rough drafts and a slower-speed near-letter-quality copy for the final draft. Such a printer also permits technical illustrations and other picture/word mergings. Work-study students can be trained to administer daily scheduling and serve as resource persons.

**Space:** Each workstation should have extra space for drafts, notes, and the various research materials—books and journals—which characterize academic writing. Bank-type clusters characteristic of number-crunching applications should be avoided. In general, several smaller clusters at different locations are better than a few large ones.

**Noise levels:** Clusters dedicated to word processing should ideally recognize the special needs of writing students. Students composing on-screen should have a quieter environment than number-crunching clusters afford. As writers well know, idea generation best proceeds with fewer distractions, even solitude. Printers should be equipped with sound-proofing devices or moved to an adjoining room.
Other factors that need to be a part of long-range planning can be more fully articulated when appropriate:

**Furniture:** If existing furniture is not adequate or cannot be modified, then new chairs and tables should be added to the budget. To figure budgets roughly, use prices available in the many computer supplies-and-furniture catalogs (reader-service cards in many computer magazines will provide a plentiful yield of free subscriptions to these catalogs). Either in-house or independent carpenters, however, can often provide table or counter surfaces quite reasonably. Height-adjustable chairs and broad-surfaced tables (with paper-drop holes for tractor-feed paper) should also be considered.

**Lighting:** Workstations should be clustered to avoid glare from overhead light fixtures on screens. Stick on, transparent, glare-reducing screen covers are also readily available.

**Supplies:** Paper, ribbons, diskettes, and similar supplies should always be accounted for in budget estimates. If individual students are responsible for diskettes and cartridge-type ribbons, for example, then continuing supplies must be lined up in advance with the college bookstore.

**Insurance Coverage:** Insurance coverage should be determined in advance of actual purchases and identified in proposals or specifications. The serial numbers of all pieces of equipment should be added to insurance policies. Equipment owned by individual faculty, however, is often not covered by the institutional policy, and many homeowner's policies cover only half the value of equipment once removed from the home. In some cases, a rider needs to be purchased for an existing policy—or independent coverage secured from another insurance firm (such as Safeware, P.O. Box 02211, Columbus, OH 43202). In general, insurance should cover any theft or damage to purchased hardware and software.

**Security Coverage:** The physical security of hardware and software should be carefully assessed. Doors and windows may require new locks or alarm systems (existing alarm systems may need to be extended), and building-access policies may need to be reviewed. Security personnel should be consulted in advance—and later kept abreast of microlab equipment and operating hours. The existing mechanism to label and inventory institutional property will also have to be activated.

**Staffing:** If possible, word-processing micro-clusters should be staffed at all times by either faculty or work-study students to establish order, serve as resource guides, oversee scheduling, and record utilization of the facility. A full-time faculty director can be appointed; release time can be sought for one or more faculty on a part-time basis; or faculty can volunteer for supervision periods on a regular basis.

**Training:** Faculty or work-study students should be trained in advance, and a mechanism for accomplishing this task should be identified. One way to promote faculty training and acceptance of word-processing equipment is to distribute newly arrived hardware and software to the offices of individual faculty members for a period—month, summer, semester—before a microlab cluster is actually in place.

**Service:** Whether supplied in-house or by a local vendor, the cost of a service contract should also be identified—and may amount to as much as ten-percent of the system purchase price annually in some cases. For repair and service requirements, you might want to include a response-time factor. When systems go down, same-day service is often required.

**Electrical Requirements:** Once a site for a word-processing cluster has been identified, existing wiring may need to be modified to accommodate a heavier load—and new receptacles added to reflect equipment location. In addition, proper grounding is absolutely necessary (but is often missing in older buildings). Dedicated lines for individual pieces of equipment might be advisable in some cases, and power-surge protectors might also be recommended (if power-surge devices are not in place, make sure that insurance coverage extends to this type of damage).

**Educational Discounts:** When negotiating with vendors for hardware and software to set up a microlab, it is almost standard to expect a substantial educational discount. Many companies offer such a reduction to nonprofit institutions, and the range can vary considerably. Volume discounts are also standard.

**Software:** The standard advice about buying any computer should be heeded: identify application needs first, then select the software that will do the job most easily. Finally, the hardware is selected to run the software. This order of selection forces purchasers to give primary attention to the purpose of the acquisition.
Be sure to work out in advance how particular software packages will reach individual students. Some institutions will have each student purchase a piece of software, while others will pursue site licenses. Licensing options and graduated group-discounts vary from company to company. In general, keep in mind that hardware often determines software availability, so don’t overlook the need for software flexibility: the ability to take advantage of newly developed commercial software as it becomes available.

**Warranty:** The guarantee or warranty can be confusing at times. For example, check to see if the warranty is voided by certain add-on peripherals? In general, most local vendors must comply with guarantees set by the national company; in many cases, such a warranty is industry-wide, allowing for little manipulation unless the local dealer is willing to make the extension.

## Text Analysis and Writing: Call for Bibliographic Information

Prof. Ellen McDaniel at Texas A&M University needs information on text-analysis and writing-instruction programs, available or under development, for a bibliography of software that she hopes to compile, publish, and maintain. Word processing and spelling checker information is not needed, except for programs integrated into analysis and writing instruction packages.

Particular information on each program will include the title, author(s), publisher or marketing organization (including contact person, address, and phone number), availability, computer(s) it runs on, operating system(s), memory requirement, language programmed in, price, and a brief description. Those with information or leads about such programs should contact Prof. Ellen McDaniel, Department of English, Texas A&M University, College Station, TX 77843-4227, or call (409) 845-9935.

## Call for Papers: Computers and Writing Conference at UCLA

The UCLA Writings Programs and College of Letters and Science will host a conference on “Computers and Writing: New Directors in Teaching and Research” next May 4-5, 1985. In addition to word-processing applications to academic writing programs, the conference will include attention to designing classroom exercises, adapting word processors to the syllabus; funding; purchasing; setting up a computer lab; evaluating the effects of computers on student learning and texts; designing, marketing, and evaluating software; data bases; idea processors; and graphics.

The submission deadline for 300-word abstracts has been set for February 15, 1985, including mention of needed hardware support. The $75.00 registration fee must be paid by March 15, 1985. Contact Lisa Gerrard, UCLA Writing Programs, 371 Kinsey Hall, UCLA, Los Angeles, CA 90024.

## Bibliography Update


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THE SCHOLAR'S SOFTWARE LIBRARY

Bryan Pfaffenberger

[ED. NOTE: the newsletter would like to welcome Dr. Bryan Pfaffenberger as a contributing columnist. He will be writing a regular article, "The Scholar's Software Library," in which he'll discuss many of the educator-specific software programs and applications available. Currently on leave from his teaching post at Knox College, Bryan is a writer and anthropologist who has authored The College Student's Personal Computer Handbook and Macintosh for College Students (Sybex Computer Books, 2544 Sixth St., Berkeley, CA 94710). He's currently working on another book, The Electronic Scholar, for Little, Brown and Company.]
Running WordStar on an IBM or PC compatible is an exercise in frustration if you use foreign language characters. The program can display only the remarkably anglocentric ASCII character set. Even if you’re a devoted WordStar user (and after learning all those commands, who isn’t?), you’re probably looking with longing at those new, snazzy programs, such as Microsoft Word, that can make full use of the PC’s extended character set of 128 foreign language, graphics, and mathematical characters.

This isn’t to say, of course, that foreign language word processing is completely out of the question with the PC version of WordStar, but it’s far from convenient. You can, for instance, buy a letter-quality printer and add one of the several foreign language printwheels or thimbles available. The print wheels replace seldom used characters (such as braces) with certain foreign language characters, so that when you place a left brace in your text file, for instance, you get an umlauted u from your printer. The problem is that your text file is hard to read because it’s full of odd-looking characters.

If you’re having trouble putting up with WordStar’s monolingualism, there’s hope—indeed, salvation. It’s ASCII, a program written by Daniel and Jeannie Brink of Arizona State University. Although ASCII will work with certain other word processing programs, its raison d’etre is to expand WordStar’s linguistic horizons, and it does the job with ease and speed. In essence, the program lets you set up a new keyboard map, or your own definition of what appears on the screen when you press a key, using any of the PC’s characters (including the 128 special characters in the extended character set). You can, for instance, define the keyboard so that the left brace key ([]), when pressed, displays the umlauted u on the screen—even when you’re writing with stodgy old WordStar!

Just what use you’ll make of ASCII depends on what kind of printer you have. If you’re using a letter-quality printer, for instance, you can use ASCII to redefine your PC’s keyboard with a specific printwheel or thimble in mind. In fact, the disk includes finished keyboard maps for the Qume foreign language print wheels (German, French, Italian, Spanish, and Swedish). A utility that’s provided with the program, ASCII-ED, lets you map any other printwheel or thimble to the screen, so long as the characters you’re mapping are included in the PC’s extended character set.

If you’re using a dot-matrix printer that’s equipped with the PC’s extended character set, such as the IBM Graphics Printer or the C.Itoh 1550EP, you’re in good shape for setting up a version of WordStar that’s genuinely well suited for writing in foreign languages. As you’ve doubtless already discovered if you’ve tried a letter-quality printer, the foreign language print wheels and thimbles now available usually don’t include all the necessary symbols for serious writing in foreign languages. Qume’s Spanish printwheel, for instance, lacks accented vowels. (There are ways around this unfortunate omission with WordStar—for instance, you can use the superscript, subscript, and overstrike commands to produce an accented vowel—but they’re complex and tedious.) So long as you’re willing to settle for a dot-matrix printer’s less-than-letter-quality document appearance, however, you can use ASCII to map a full foreign language character set to your keyboard. You’ll see all the foreign language characters right on the screen, and they’ll print out just the way you see them.
If you’ve got a printer that doesn’t have the extended character set, but does have its own, unique foreign language character sets (such as the Epson RX-80), you can use ASCII.COM to take advantage of them. A special utility, included with the program, downloads the full PC character set to the Epson FX-80, which otherwise lacks them.

ASCII is a straightforward and well-conceived program, and it’s suitable for use by anyone with, say, the minimal expertise needed to get a printer and word processing program to work together. The manual, sadly, is cryptic and leaves much to the imagination, but the material that’s unclear in the manual comes into focus when you give the program a try. If you’re clinging to WordStar in spite of its unsuitability for foreign language word processing, ASCII is worth a look.

SOFTWARE REVIEW — WordStar

The newsletter does evaluations of word-processing software to help you and your students discover programs that might fulfill writing and research needs. This month we evaluate WordStar, probably the most widely used microcomputer word-processing program on the market. This review focuses on version 3.3; in a future review we will look at the recently published WordStar 2000.

When reviewing a word-processing package, we are not endorsing any product. Rather, we are describing the software’s strengths and weaknesses as well as examining how these features (or lack of them) might affect students and teachers in academic writing situations.

<table>
<thead>
<tr>
<th>PROGRAM:</th>
<th>WordStar 3.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBLISHER:</td>
<td>MicroPro International Corporation</td>
</tr>
<tr>
<td>ADDRESS:</td>
<td>33 San Pablo Avenue</td>
</tr>
<tr>
<td></td>
<td>San Rafael, CA 94903</td>
</tr>
<tr>
<td></td>
<td>(415) 499-1200</td>
</tr>
<tr>
<td>LIST PRICE:</td>
<td>$350.00</td>
</tr>
<tr>
<td>WILL RUN ON:</td>
<td>Most PC-DOS, MS-DOS, and CP/M systems</td>
</tr>
<tr>
<td>MEMORY (RAM):</td>
<td>64k (80k CP/M-86)</td>
</tr>
<tr>
<td>DISK DRIVES NEEDED:</td>
<td>one (two recommended)</td>
</tr>
<tr>
<td>SPELL CHECKER:</td>
<td>available as option (54,000 words)</td>
</tr>
<tr>
<td>CHECK MODE:</td>
<td>interactive</td>
</tr>
<tr>
<td>DISK TUTORIAL:</td>
<td>excellent</td>
</tr>
<tr>
<td>DOCUMENTATION:</td>
<td>excellent</td>
</tr>
<tr>
<td>EASE OF LEARNING:</td>
<td>variable (application-dependent)</td>
</tr>
<tr>
<td>EASE OF USE:</td>
<td>very easy</td>
</tr>
<tr>
<td>SITE LICENSING:</td>
<td>yes</td>
</tr>
</tbody>
</table>

COMPOSITION

FEATURES Y/N COMMENTS
HELP SCREENS yes three levels of help are available and may be called at any time within the program by typing [CTRL] JH (shown on the WordStar screen as \AJH); see Fig. 2 for an example of help level 3
HEADERS/FOOTERS yes while creating headers and footers is very easy—type the dot command .HE or .FO and then the text—you are limited to one line for each (see Fig. 3 for a summary of dot commands)
CURSOR CONTROL: yes using the [CTRL] key with various single letters allows you to move backward or forward by character, word, line, block, screen, file, or special mark.

AUTOMATIC WORD WRAP: yes unlike many programs, WordStar allows you to toggle between automatic word wrapping and manual (typewriter) modes at any time in a document by typing [CTRL] OW.

ADJUSTABLE MARGINS: yes left- and right-margin settings may be altered at any time in a document by typing [CTRL] OL (left) or [CTRL] OR (right); also, you can set new margins and tabs from a regular text line by typing [CTRL] OF.

SPACING OPTIONS: yes WordStar allows you great flexibility in spacing your document’s lines; in addition, it displays your line spacing on the screen as you type.

AUTO TEXT ADJUST: no after inserting or deleting text, you must type [CTRL] B to reformat your text.

PRINT TO SCREEN: no the program doesn’t really need to, since it displays variable line spacing, justification, etc. on the screen; underlining, boldfacing, etc., however, are displayed as control codes (an emboldened word, for example, would look like this on the screen: \&shucks\&B).

---Preliminary Commands---
L Change logged disk drive
F File directory now (OM)
H Set help level

---Commands to Open a File---
D Open a document file
N Open a non-document file

DIRECTORY of disk A:
CHAPTR1.DOC CHAPTR1.BAK CHAPTR2.DOC CHAPTR2.BAK
CONTENTS FILE1.DOC FILE1.BAK MAILMRGE.OVR
LETTERS.DOC LETTERS.BAK MAILMRGE.OVR
WS.COM WSM5G5.OVR W5OVLY1.OVR

---File Commands---
P Print a file
E Rename a file
O Copy a file
Y Delete a file

---System Commands---
R Run a program
X Exit to system

---WordStar Options---
M Run MailMerge
S Run CorrectStar

Figure 1: WordStar Opening Menu
SEARCH/REPLACE
yes
as you would expect from a first-rate word-processing program, the find/replace feature is extensive; some options are find text, find and replace text (prompted or not prompted), find embedded strings or complete words, find and replace enhanced words (i.e., replace an underlined word with an emboldened one)

CUT/PASTE
yes
first, mark a block of text by using [CTRL] KB at the beginning of the block and [CTRL] KK at the end; you are then free to copy or move the marked block anywhere in the document or outside to a new file

LITERATURE

SUPERSCRIPTING
yes
you can also select the amount of space, or "roll," you want your printer to do by inserting the dot command .SR followed by a number (e.g., .SR 5 would roll the superscripted number up 5/48 of an inch); see Fig. 3 for a summary of WordStar dot commands

---Figure 2: WordStar Main Menu---

CREATIVE WRITING

VARIABLE LINE SPACING
yes
while WordStar does print fully justified lines, it does so by adding space between words—not as cosmetically appealing as a truly proportionally-spaced printout, but the program does have a built-in hyphenation feature to help you make your text as free of gaps as possible

PROPORTIONAL SPACING
no

RIGHT-JUSTIFIED TEXT
no
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TECHNICAL WRITING

<table>
<thead>
<tr>
<th>SUBSCRIPTING</th>
<th>yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAPHICS</td>
<td>no</td>
</tr>
</tbody>
</table>

d this feature is becoming more relevant as teachers and researchers are using their computers for foreign-language study; while WordStar itself doesn’t support graphics characters (you can get a few by using the overstrike feature to, say, accent an “é”), there are a number of add-on packages which work with the program to afford you this capability [see this month’s inaugural column, “The Scholar’s Software Library,” for an example of one such product]

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>COMMAND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bidirectional printing</td>
<td>.BP</td>
</tr>
<tr>
<td>Microjustification</td>
<td>.UJ</td>
</tr>
<tr>
<td>Page offset, left margin</td>
<td>.PO</td>
</tr>
<tr>
<td>Character width</td>
<td>.CW</td>
</tr>
<tr>
<td>Comment (not printed)</td>
<td>.IG or ..</td>
</tr>
<tr>
<td>Conditional page break</td>
<td>.CP</td>
</tr>
<tr>
<td>Footer</td>
<td>.FO</td>
</tr>
<tr>
<td>Header</td>
<td>.HE</td>
</tr>
<tr>
<td>Header margin</td>
<td>.HM</td>
</tr>
<tr>
<td>Footer margin</td>
<td>.FM</td>
</tr>
<tr>
<td>Line height</td>
<td>.LH</td>
</tr>
<tr>
<td>Top margin</td>
<td>.MT</td>
</tr>
<tr>
<td>Bottom margin</td>
<td>.MB</td>
</tr>
<tr>
<td>New page (hard page break)</td>
<td>.PA</td>
</tr>
<tr>
<td>Omit page numbering</td>
<td>.OP</td>
</tr>
<tr>
<td>Page number</td>
<td>.PN</td>
</tr>
<tr>
<td>Page number column</td>
<td>.PC</td>
</tr>
<tr>
<td>Subscript/superscript roll</td>
<td>.SR</td>
</tr>
<tr>
<td>Paper length</td>
<td>.PL</td>
</tr>
</tbody>
</table>

Figure 3: WordStar Dot-Command Summary
PROFESSIONAL

CREATE "HELP" SCREENS no

BOILERPLATING yes see "CUT/PASTE" for examples of how you can manipulate text; no official "Library" or "Glossary" features are included in WordStar

BACKGROUND PRINTING yes while you cannot do other editing functions when printing a document from the Opening Menu (see Fig. 1), you can be in the middle of editing one document and print another by using the [CTRL] KP command

OTHER FEATURES

It would take up too much space to list all of WordStar's extra commands for text formatting. Part of the reason many consider the program to be too complex to learn is probably because of its inherent assets. But remember that most folks don't use at least 50% of a program's features in 99% of their everyday work. The beauty of a program such as this is in its ease of use for regular writing tasks.

PRINTER SUPPORT

The ultimate test of any word-processing program is its ability to support basic and, when applicable, advanced text-formatting features on both letter-quality and dot-matrix printers (more specifically, the printer or printers you either presently own or can afford to purchase). Note that specific model numbers within printer families aren't always listed; therefore, it would be a good idea to try out the program before purchasing it. Here, then, is a list of printers directly supported within WordStar's "WINSTALL" printer configuration program: DIABLO, NEC, EPSON, IBM, OKIDATA, TEXAS INSTRUMENTS, XEROX, and others. A special note: because of recent updates to the program, many more printers are probably supported. Check with MicroPro or your local computer dealer for details.

OVERALL EVALUATION

Before you buy the opinions of others regarding the difficulty of WordStar, try it for yourself. Few programs offer as many features, and those that do often send you through two or three "user-friendly" menus just to underline or embolden a word. The tutorial included with the program is superior; the software documentation is almost beyond compare, given the state of user-manual quality. On an IBM PC, TI Professional, or similarly equipped computer, WordStar allows you to create your own editing or formatting function keys and displays them on the bottom of the screen. Likewise, if you have a color-graphics card and either a monochrome or color monitor, the program may be configured for varying degrees of shading or color support. The program lends itself to almost any writing application from junior high to professional level. After "listening" with your own eyes and fingers, you'll discover that the venerable old micro workhorse is as flexible and powerful as any so-called "second-generation" word-processing package.

[ED. NOTE: The categories we include in our software reviews reflect course offerings found in academic settings. If you feel we should add other categories that address common writing initiatives, or if you would like to see more program features included under existing categories, let us know.]
Notice of Vacancy

Located in the Black Hills, the South Dakota School of Mines and Technology has a one-year, full-time position for fall, 1985, to teach technical communications, composition, and interdisciplinary science-humanities courses. Interest in word-processing applications to writing and literature will be an asset. Ph.D. or ABD required. The academic rank and salary will be commensurate with qualifications. Please send resume, letters of reference, and full credentials by March 15, 1985. Contact Dr. Leland R. Luckhart, Chairman, Liberal Arts Department, South Dakota School of Mines and Technology, Rapid City, SD 57701.

Call for Papers: Interface '85

Publisher of The Journal for the Humanities and Technology, the Humanities and Technology Association is soliciting papers for its "Interface '85: Ninth Annual Humanities and Technology Conference" to be held October 17-18, 1985, in the Atlanta, Georgia area. Though the conference will cover a wide range of topics relating to the relationship between the humanities and technology, papers on word-processing applications to writing and the humanities are also possible.

The deadline for submitting abstracts has been set for April 30, 1985. The one-page, single-spaced abstract should be typed and ready for reproduction—with the paper's title, author's name, and author's professional affiliation centered at the top. Contact Virginia Hein or Bob Wess, Department of English and History, Southern Technical Institute, Marietta, Georgia 30060.

Call for Papers: SNOBOL and SPITBOL

ICEBOL, the International Conference on English Language and Literature Applications of SNOBOL and SPITBOL, has been set for May 30-June 1, 1985, at Dakota State College in Madison, South Dakota. Applications of these programming languages will include analysis of literary texts (including bibliography, concordance, and index preparation), linguistic and lexical analysis (including translation and foreign language text analysis), and student writing. Keynote speaker Ralph Griswold will also discuss the ICON programming language. An advanced-users' programming clinic will be featured—as well as one for beginners with little or no experience with SNOBOL or SPITBOL. Abstracts and papers under 3,000 words must be received by February 15, 1985. Contact Eric Johnson, ICEBOL, 115 Beadle Hall, Dakota State College, Madison, SD 57042 or call (605) 256-5270.

Manuscript Submissions Welcome

The newsletter welcomes article submissions which pertain to word-processing, text-analysis, and research applications in academic situations. Manuscripts may be submitted either as hard copy or on disk using WordPerfect, WordStar, or standard ASCII code in IBM PC-DOS, MS-DOS (5 1/4” diskette) or CPT 8500 (8” disk) formats. The Editors reserve the right to edit articles, if necessary. If you want your manuscript or disk returned, please send enough postage to cover the return along with a self-addressed envelope. Address all correspondence to the Editors, Research in Word Processing Newsletter, South Dakota School of Mines and Technology, 500 E. St. Joseph, Rapid City, SD 57701-5995.

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