RESEARCH IN
WORD PROCESSING
NEWSLETTER

IN THIS ISSUE . . .

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NOTA BENE

A
Scholar's
dream . . .
or *nightmare?*

Diagrammatic Writing Using Word Processing: "Larger Vision" Software

Lynn Veach Sadler, Wendy Tibbetts Greene, Emory W. Sadler

The "CAC"[1] (Computer-Assisted Composition) Movement is now in the developmental stages of its Second Wave. The First Wave, which has not yet peaked, is the use of a commercial word-processing software package to enable students to compose paragraphs and essays on the computer. The Second Wave—the heuristic stage—is the use of specially developed software to tutor students in the composing process.

Those who have worked in First-Wave Computer-Assisted Composition using word processing have begun to move to Second-Wave lest *the changes effected quantitatively and qualitatively in student writing, the impetus to revise, and the positive change in attitude toward writing*—the gains of First-Wave CAC—be based in the allure of the technology itself. Hence the evolution toward heuristics-based software that focuses on pre-writing or revising or, best of all, on the entire process of writing and, another major boom, that is likely to encourage more "writing across the curriculum" because non-English professors, with it, can choose their own level of involvement in CAC. Examples are the work of Lillian S. Bridwell and Donald Ross at the University of Minnesota; Christine Neuwirth's *DRAFT* at Carnegie-Mellon; Cynthia Selfe's *Wordswork* at Michigan Technological University; Ruth Von Blum and Michael Cohen's *WANDAH* [now *HBJ Writer*] at UCLA; William Wresch's *ESSAY WRITER* at the University of Wisconsin Center (Bayshore Marinette); and Wendy Greene, Lynn Sadler, and Emory Sadler's "Diagrammatic Writing Using Word Processing" and "A Computerized Guide Through the Construction of the Research Paper." The problem is that practically all of these are under development or have not yet received major testing.

Already, however, data from student interaction with First-Wave Computer-Assisted Composition are providing timely caveats for Second-Wave authors. An outstanding example is Susan Tyler Hitchcock's "A Cautious View of Computers in Teaching Writing (Or, Computers Don't Teach Writing; People Do)," which voices the fear that writing on the computer causes students to work at the level of minutae and miss the *larger vision* of the work—its structure—and concludes:

> In short, the presence of computers in the writing classroom is going to force us teachers of writing to work even harder to raise students' sights to the larger picture of things as they write. We must conscientiously compensate for the funneling effect that the computer will have on our students' consciousness. We can give over the smaller and more tedious tasks of writing to the computer programs themselves, thank goodness. We have every reason to expect that the number of misspelled words or subject-verb disagreements that we have to circle will decline. But as computers take over at the more mechanical level of writing instruction, we will have to strengthen our forces on the conceptual level, encouraging our students to make writing decisions with the bigger picture—the sense of the essay as a whole—in mind.[2]

"Diagrammatic Writing Using Word Processing," Second-Wave CAC software, as the title suggests, both used the First-Wave approach of word processing and moves beyond it. The program has always aimed at keeping what Ms. Hitchcock calls the "larger vision" of the essay before the student. Now completed, it has been used at Methodist College (in General Education/Core Freshman English during the fall semester of 1985) and will be tested in the spring semester of 1986 at Southwestern College in Chula Vista, California and at Rochester Community College in Rochester, Minnesota. It teaches—thus the label "heuristics-based"—the essay in nine rhetorical modes: description, narration, example, definition, comparison/contrast, process, classification, cause and effect, and argumentation. Menu-driven, it consists of two major divisions: "Pre-writing" and "Writing."

The first phase of "Diagrammatic Writing," "Pre-writing" is intended for basic writers who embrace single con-

cepts one at a time and who may have neither much experience with nor much confidence in essay writing. It asks emergent writers who "can't write" and "have nothing to say" questions they can answer and move on. Its techniques were developed experientially in pencil-and-paper tutoring one-on-one and have adapted easily to the individualized mode of instruction that is a hallmark of the computer.

"Pre-writing" has three parts: "Considering the Familiar," "Listing Topics," and "Establishing the Approach." Their intention is to create a cache of topics of interest to the individual student and to provide a feel for the difference in approach of the rhetorical modes. "Considering the familiar" establishes "write what you know" as a working principle. When the student has interacted with a series of requests (e.g., "Name the three well-known people—living or dead—whom you would most like to meet."; "Name three social issues that interest you."), the responses produce a subject bank of thirty-six topics that can be saved and continually drawn upon. "Listing Topics" displays the answers in a form (under the topics People, Foods, Colors, Extracurricular Activities/ Jobs/Possible Careers, Vehicles, My Past, Journeys) that helps the writer choose a subject to develop. Once the field has been narrowed, the student completes the section on "Establishing the Approach" by responding to a series of options that correspond to the nine rhetorical modes of essays taught in the program:

Do you want to

1. describe three aspects of _____?

2. tell a story about _____?

3. explain that _____ is an excellent example of _____?

4. define _____'s attitude toward _____? Define _____?

5. compare and contrast _____ with someone or something?

6. tell how _____ is done?

7. divide all _____s into types?

8. explain how _____ has caused certain events to occur?

9. prove that _____ is _____?

Confident writers, on the other hand, can ignore the building of a subject bank in "Pre-writing" and move directly into the "Writing" phase. Each of the nine subdivisions of the "Writing" section provides (1) a model essay illustrating the type; (2) an interactive tutorial that provides illustrations, many of them from the model essay, and posits cautions in writing the type of essay under study; and (3) an outlining section that leads the student through the creation of the thesis statement and opening sentence ("grabber") of the first paragraph, the topic sentences of the body paragraphs, and the topic sentence and closing ("zinger") of the final paragraph.

Even in the tutorials, the writer is asked to keep the whole of the essay in mind. As an example, here is the opening of the tutorial for the comparison and contrast essay:

> As Aristotle pointed out, comparison is a natural function of the human mind. Contrast is merely its distaff or flip side, another mode of comparing. As in the PROCESS essay, the writer's purpose is closely tied to his/her scheme of organization.

Once you have chosen the two foci for COMPARISON and CONTRAST, you must decide how to approach them. Within paragraphs, you can have some sentences discuss Topic X and others COMPARE and CONTRAST Topic Y on the same subject (Approach 1).

Alternatively, you can work paragraph by paragraph, discussing X in one paragraph and Y in the next (Approach 2).

You even have a third possibility (Approach 3): within one paragraph, sentences about X, sentences about Y, and sentences about X and Y.

Before we go on, let's see if you have understood.

Which of the organizational schemes below should NOT be used in the paragraphs of your COMPARISON and CONTRAST of Topics X and Y?

A. Paragraph Structure	B. Paragraph Structure
Sentence 1—Topic X	Sentence 1—Topic X
Sentence 2—Topic Y	Sentence 2—Topic X
Sentence 3—Topic X	Sentence 3—topic X
Sentence 4—Topic Y	Sentence 4—Topic Y
Sentence 5—Topic X	Sentence 5—Topic X
Sentence 6—Topic Y	Sentence 6—Topic Y

Please type either A or B and then press ENTER[3].

Which of the organizational schemes below should NOT be used in structuring your COMPARISON and CONTRAST of Topics X and Y?

A. Essay Structure	B. Essay Structure
Paragraph 1—on X	Paragraph 1—on X and Y
Paragraph 2—on Y	Paragraph 2—on X
Paragraph 3—on X	Paragraph 3—on Y
Paragraph 4—on Y	Paragraph 4—on X
Paragraph 5—on Y	Paragraph 5—on Y
	Paragraph 6—on X and Y

Type A or B and then press ENTER.

The outlining section, "Building Bones," is the heart of "Diagrammatic Writing," and the writer who knows his/her mode and its requirements can go immediately to this activity to put in place the structure of the essay as a whole. Once "Building Bones" is completed, the student can request a printout and/or "port" the essay's structure over to his/her word-processing program for expanding, completing, and editing.

"Building Bones," for the majority of the nine rhetorical types, consists of ten sections: Subject/Title (with directions for transforming the former into the latter), Audience (a brief description by the writer of those for whom the paper is intended), Style (a designation of whether the paper is to be formal or informal), Purpose (in writing the essay), Thesis, Topic Sentences for the Body Paragraphs, Topic Sentence for the Final Paragraph, Grabber, Zinger, and Flesh on the Bones.

The Thesis Section takes the writer through a five-part process for converting his/her purpose to a thesis statement. Below is an illustration from "DESCRIPTIVE Essay: Building Bones."

> **Direction 1:** Omit the intention in your purpose statement and focus on the topic alone—e.g., "I want to DESCRIBE [intention] the Perfory College campus to reflect its physical and spiritual unity" becomes "a description of the Perfory College campus reflecting its physical and spiritual unity."
>
> Place your shortened purpose statement here and press ENTER.
>
> **Direction 2:** Since a thesis statement both states your topic and sets the stage for the body paragraphs, indicate three (or more) objects/areas/persons/animals/-qualities you will describe to meet the demands of your thesis. For the sample DESCRIPTIVE essay, we can list
>
> > a. permanence through the buildings
> >
> > b. order through the trees
> >
> > c. peace through the central quadrangle and the whole.
>
> Now list the three (or more) objects/areas/persons/animals/qualities you will describe in your body paragraphs, pressing ENTER after you complete each of them.
>
> **Direction 3:** Arrange your three (or more) items to be described in least-to-most-important order. In the sample DESCRIPTIVE essay, for example, (1) permanence and (2) order seem to build naturally to (3) peace.
>
> **Direction 4:** Build each item to be described into a phrase (or sentence) and make the phrases/sentences grammatically parallel; that is, all of the phrases are balanced or contain matching parts of speech. If, for the sample DESCRIPTIVE essay, "performance through the buildings," "order through the trees," and "peace through the central quadrangle and the whole" had been "permanent buildings," "in order through the trees," and "quadrangle and whole in peace," I would have had to make them parallel.
>
> Please write your parallel phrases/sentences below and then press ENTER.
>
> **Direction 5.** Combine the shortened purpose statement and the three (or more) items to be described to construct a complete thesis, for example—"The Perfory campus attests to the physical and spiritual unity of the college: it offers a sense of permanence through its buildings, of order through its very trees, and of peace through its central quadrangle and through the whole."
>
> Here are your shortened purpose statement and items to be described:
>
> Now combine them into your thesis, below, and press ENTER.

In the section "Topic Sentences for the Body Paragraphs," the writer is first given an example of the topic sentences in the sample essay and is then asked to construct his/her own. As soon as those sentences have been completed for every body paragraph, the writer is told: "I will place these topic sentences in the appropriate paragraphs. Although they usually come at the beginnings of paragraphs, you may wish to shift their positions when you edit the paper as a whole." Then the computer says, "Here is what you have so far" and presents what the student has entered to date in this format:

Opening Paragraph—thesis statement—

Body Paragraph 1—topic sentence—

Body Paragraph 2—topic sentence—

Body Paragraph 3—topic sentence—

[The writer can have as many body paragraphs as he/she chooses.]

After each additional section of "Building Bones" is complete, the student is treated to "Here is what you have so far" with the new materials (Final Paragraph/topic sentence, Opening Paragraph/grabber, Final Paragraph/zinger) added incrementally. As always, examples from the sample essay are presented at each juncture.

Some of the essay types require additional "bones." The DESCRIPTIVE essay, for example, has a section entitled "More Planning," which tells the writer: "In the tutorial for the DESCRIPTIVE essay, you were advised to use sensory details and comparisons (personification, simile, metaphor). I will show you your topic sentences for the body paragraphs again. Provide at least one sensory detail based on sight, smell, touch, taste, or hearing and at least one kind of comparison to be used in each body paragraph. Make sure to vary the kinds of sensory detail and the kinds of comparisons you use." The final "Here is what you have so far" thus looks like this (with, of course, the writer's constructions provided):

Opening Paragraph—grabber—

Opening Paragraph—thesis statement—

Body Paragraph 1—topic sentence—

Body Paragraph 1—sensory detail—

Body Paragraph 1—comparison—

Body Paragraph 2—topic sentence—

Body Paragraph 2—sensory detail—

Body Paragraph 2—comparison—

Body Paragraph 3—topic sentence—

Body Paragraph 3—sensory detail—

Body Paragraph 3—comparison—

Final Paragraph—topic sentence—

Final Paragraph—zinger—

Again, the writer can have as many body paragraphs as he/she chooses and does not have to provide a sensory detail and a comparison for each of them. The skeleton ("bones") goes with the writer to the word-processing program:

You are ready to complete each of your paragraphs. I suggest that you expand the body paragraphs first, then complete the introduction (1) and, finally, the conclusion, being careful to restate your point without simply repeating the opening paragraph.

As a general rule, you should have at least six sentences in each paragraph.

When you return to the menu for the _____ essay, choose IV (``Return to the main menu.'') to save your work on the diskette in DRIVE B. You will then be able to access it from your word-processing program and complete the _____ essay.

The authors of "Diagrammatic Writing Using Word Processing" believe that the writer will be unable to forget the "larger vision"—the structure—of the whole.

Notes

(1) The term was coined by Lynn Veach Sadler and was first used publicly in a presentation, ``From CAI to CAC: The Bennett College Program in Computer-Assisted Composition,'' at NECC (June 13-15, 1984).

(2) *Research in Word Processing Newsletter*, Vol. 3, No. 7 (1985), 8.

(3) ``Diagrammatic Writing,'' while it teaches the standard five-paragraph essay, is careful to encourage and illustrate flexibility. Here, for example, the correct response (B) elicits ``Good! Notice that there are six rather than the usual five paragraphs in the preferred organizational scheme.''

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SOFTWARE REVIEW INDEX

The following is an index of software reviewed in Volume 3, Nos. 1-9 (January-December, 1985):

ASCII	February	1985	Vol. 3, No. 2
Framework	April	1985	Vol. 3, No. 4
MacWrite 4.5	September	1985	Vol. 3, No. 6
Microsoft Word (Macintosh)	December	1985	Vol. 3, No. 9
Microsoft Word (MS-DOS)	March	1985	Vol. 3, No. 3
Notebook II	November	1985	Vol. 3, No. 8
ProofWriter	September	1985	Vol. 3, No. 6
Quintilian	November	1985	Vol. 3, No. 8
Readability	October	1985	Vol. 3, No. 7
Samna +	October	1985	Vol. 3, No. 7
WordStar 3.3	February	1985	Vol. 3, No. 2
ZYIndex	April	1985	Vol. 3, No. 1

Call for Papers: Computers and Writing

The University of Pittsburgh Conference on Computers and Writing will be held May 2-4, 1986. Topics for paper presentations and software demonstrations include

- ■Computer-Assisted Instruction in Writing
- ■Natural Language Processing
- ■Computerized Text Analysis
- ■Word Processing for the Classroom
- ■Intelligent Computer Tutors
- ■Other related Topics.

January 15, 1986, is the deadline for those wishing to present or demonstrate: two copies of a single-spaced, one-page description should include the name, position and phone number on the first copy only. A separate 75-word abstract for the conference program is also needed. Contact Jim Partlett or Carolyn Ball, Learning Research and Development Center, University of Pittsburgh, 3939 O'Hara Street, Pittsburgh, PA 15260, or call (412) 621-4891.

ADCIS Conference in New Orleans

The Association for the Development of Computer-based Instructional Systems will hold its 27th International Conference in New Orleans on February 3-6, 1986. Contact ADCIS, 409 Miller Hall, Western Washington University, Bellingham, WA 98225, or call (206) 676-2860 or 734-6574.

Call for Papers: American Society for Information Science

``Shaping the Future: The Sky's the Limit'' is the theme of the 49th Annual Meeting of ASIS to be held in Chicago, IL, September 28-October 2, 1986. Broadly defined categories include 1) Information Users, 2) Information Technology, and 3) Information in Society. The Special Interest Group for the Arts and Humanities (SIG A/H) will oversee submissions in the humanities.

The deadline for notification of intent to submit a paper is January 15, 1986, including a 250-300 word abstract with descriptors and a title. Notification of acceptance can be expected by March 3, 1986, and final papers will be submitted by April 14, 1986. Contact Charles H. Davis, Technical Program Chairman, GSLIS, 410 DKH, 1407 W. Gregory Drive, University of Illinois, Urbana, IL 61801.

Asian and Middle Eastern Languages

Begun in January 1985, the *Newsletter for Asian and Middle Eastern Languages on Computer* is the principal source of articles, reviews and product information about non-Western languages on computer. Articles have dealt largely with word processing and the adaptation of commercially available programs to the needs of foreign-language fonts. Contact Anthony Meadow, Publisher and Editor, *Newsletter for Asian and Middle Eastern Languages on Computer*, Bear River Systems, P.O. Box 1021, Berkeley, CA 94709, or call (415) 644-1738.

Personal Publishing

While word processing first looked back to typewriting as its operating model, the emerging field of personal or desktop publishing draws from the example of typesetting: pages are individually cystomized using an impressive variety of available print fonts and picture graphics. A new monthly magazine, *Personal Publishing: The Magazine of Electronic Page Creation*, is dedicated to exploring this new realm, including reviews of relevant software.

The Apple Macintosh and LaserWriter clearly dominate this new approach to personal typesetting, but other hardware alternatives, especially the IBM PC and dot-matrix printers, are also given some attention. In fact, *Personal Publishing* is a cover-to-cover demonstration of what the new technology can create. Begun October, 1985, subscriptions are $30.00 for twelve issues. Contact *Personal Publishing* Magazine, 549 Hawthorn Avenue, Bartlett, IL 60103.

The Scholar's Software Library — *Nota Bene*

Bryan Pfaffenberger

Program:	*Nota Bene*
Available From:	Dragonfly Software
	409 Fulton Street, Suite 202
	Brooklyn, New York 11201
Price:	$495
Requires:	IBM PC or PC-compatible with 256K RAM
Recommended:	384K RAM and 10-magabyte hard disk
Applications:	Integrated word processing and free-format information storage and retrieval program specifically customized for scholarly applications

Imagine you're working on your Ph.D dissertation with a mediocre word-processing program. It can't do footnotes, it can't retrieve research notes, it can't compile a bibliography, and it can't handle foreign-language characters. Amid curses, you fantasize. Wouldn't it be neat if a single program could do all that and more, and do it the way scholars want it done?

While the rest of us were cursing, and fantazing, Steven Siebert (a former Yale graduate student in philosophy) decided to do something to remedy the situation. He put his dissertation aside, learned how to program, and created *Nota Bene*, the first integrated word-processing program designed for scholars.

An integrated word-processing program, in my nomenclature, makes accessory programs (such as research-notes management or outlining) available within a word-processing program. An excellent example is the marriage of word processing and *ThinkTank*-style outlining in *Framework*. To create *Nota Bene*, Siebert wedded a highly regarded word-processing program, *XyWrite*, with an equally esteemed free-format information storage and retrieval program, *FYI 3000*.

A Scholar's Dream?

The result sounds like a scholar's dream. The *XyWrite*-based word processor is an advanced online formatter that shows document formats on the screen just the way they'll print. You'd be hard pressed to find software with more features. In its *Nota Bene* incarnation, *XyWrite* offers multiple windows, a superb footnote utility, glossaries, math operations on columns of numbers, multi-lingual keyboards, foreign-language character printing with suitable printers, style sheets with predefined formats for five major style guidelines (including MLA and APA), automatic table of contents generation, automatic bibliography generation, automatic index generation, automatic form letter printing, proportional spacing, and more. One minor criticism: the program inserts in the text visible "format deltas," which contain formatting information. They tend to vitiate a document's onscreen readability, but doubtless one gets used to them in time.

The free-format, database program is equally full-featured. What is more, it's designed for working with the kind of data most scholars use, namely, text. Indeed, the *Nota Bene* manual calls it a "text base," an apt neologism. Like *SuperFile*, a free-format program described in these pages last year ("A Scholars' Typology of Database Management Programs," *RWPN*, Vol. 3, No. 1 [January, 1985], it lets you define your own data records using symbols to tell the program where the records begin and end. For each record, you can define up to 500 key words of 64 characters each. You may also choose to have the program compile a key-word index automatically the way *ZyIndex* does (*RWPN*, Vol. 3, No. 4 [April, 1985]). The database itself is capacious enough for even the most ambitious text-crunching enterprises: it can sprawl over 255 floppy disks. Once you've created the database, you can search it rapidly using the Boolean operators AND, OR, and NOT. Text retrieved from these searches can be pasted directly into word-processing documents with a simple command.

With *Nota Bene*'s code in your computer's memory, you can do much of what scholars do while you're sitting in front of your PC. For example, you can use the text base for storing research notes, maintaining an annotated bibliography, and even providing instant access to specified passages in manuscripts you've written previously. And all that information is directly available while you're writing with the best word processor available for pure scholarly work. Citing these virtues, the Modern Language Association recently took the unprecedented step of recommending the program to its members.

A Challenge to Learn

Nota Bene, in short, is a major achievement, and any review that does not credit it as a milestone in the evolution of software falls short of the mark. And yet all that complexity exacts a price. Be forewarned: *Nota Bene* is the most challenging software I've ever reviewed. The program daunts even the experienced personal computer freak. A quick reference guide reveals dozens of keyboard commands, but you have to learn even more: most operations are set in motion by typing a command phrase on a command line, the way you enter DOS commands. You'll have to memorize two or three dozen cryptic commands such as "ju," "wd," and "rha." Although the program comes with a fine disk-based tutorial, the manual often fails to provide necessary overviews and presents a wilderness of technical detail.

A Disturbing Onscreen Format

Nota Bene is not only the most complex software I've ever reviewed, it's also by far the most aesthetically displeasing. The two chunks of the program (*XyWrite* and *FYI 3000*) are glued together by a welter of disk-based macros. As they execute, they bewilder the user with a dizzy parade of incomprehensible onscreen messages. And because so much information has to be fetched from disk, the program plods along at an often frustratingly slow pace.

In my view, *Nota Bene*'s daunting complexity makes the program commendable with enthusiasm—contra the MLA recommendation—**only to those users already conversant with scholarly computing.** If you've some experience with, say, *WordStar, SuperFile*, PC-DOS, and perhaps a little BASIC or a spreadsheet program, you won't find *Nota Bene* insurmountable. You might even find it great fun. But I hate to think of what would happen if some of my non-computer-using colleagues were supplied with *Nota Bene* and told to go to work. They will probably conclude that personal computers are useful only to those willing to give up everthing else, including sleeping, for six months. My guess is that the computers, and *Nota Bene*, would sit around gathering dust.

If *Nota Bene* isn't the best program for beginners, can it be recommended to experienced users? Consider this: you can do everthing that *Nota Bene* does with separate programs. You could, for instance, buy whatever word-processing program you prefer, and use it with *FYI 3000* and Pro-Tem's *Bibliography*. Instead of being able to call the text-base program from within the word-processing program, however, you'd have to exit the word processor, load the text-base program, and search the database. Once you find the text you want, you'd write it to disk, exit the text base, load the word processor, and insert the text in your document. That's tedious enough, however, to stymie your interest in textual database management.

Some word-processing programs make this process much easier by letting you execute DOS commands within the program itself. *Microsoft Word*, for example, lets you stop in the middle of writing, enter a DOS command, and—so long as you've enough memory—run another program for as long as you want. You can run *FYI 3000* or *Notebook II*, for instance, get the notes you want, print them to a disk file, and return to the very spot from which you left *Word*. [ED. NOTE: In addition, the introduction of front-end processing programs such as IBM's *Topview*, Microsoft's *Windows*, and others facilitates the writer's moving between applications as well as integrating both text and graphics from different programs.]

A Final Thought

Nota Bene, in sum, isn't the only software that can do what it does. It's the first program that's specifically designed to do it all within a single-command framework. Although this achievement is indeed a milestone, the framework, unfortunately, is dauntingly complex. What makes *Nota Bene* commendable, in the end, isn't so much its integration of word processor and text-base software. Rather, it's the high qualtiy of the word processor itself. *Nota Bene*'s implementation of *XyWrite* has produced the most capable word-processing program available for scholarly work. For an experienced computer user or an especially intrepid beginner, the trek through *Nota Bene*'s complexity will produce a handsome reward indeed.

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TELECOMMUTER — Laptop to PC Link

Jim Schwartz

Laptop computers are fast becoming indispensable items for on-the-go professional writers and business people. Instead of jotting notes on matchbook covers, napkins, and other paraphernalia, writers may enter data into their laptop computers and later transfer it to a printer, cassette tape, floppy disk, or host computer—whether it's a PC or online information service such as *CompuServe.*

There's just one problem, though. Getting information from the laptop to a host computer can be frustrating, what with all of the protocol problems, etc., that arise during modem or direct-cable transfer. Harry Brawley, President of SIGEA Systems, Inc. [19 Pelham Rd., Weston, MA 02193; ph. (617) 647-1098)], and crew have come up with an answer for users of Tandy Model 100 and 200 laptops and the IBM PC/XT/AT/jr. or Tandy 1000/1200/2000—a hardware/software dynamo named *TELECOMMUTER.*

Before I get into the nuts and bolts of *TELECOMMUTER,* here's a breakdown of three of the many available configurations and their respective prices:

NAME	FEATURES	PRICE
Deluxe	(word processing, file transfer, Host Mode & null-modem cable)	$300
Plus	(above with XModem protocol, VT100 emulation, terminal-mode macros)	$400
Corporate	(above with individual handling of remote callers; activity file and user-login command file)	$1,000

The entire program is menu-driven, and you probably won't need to do much looking at the otherwise excellent manuals (there are three with the "Plus" version used for this review) because the menus are so well-crafted. Now let's take a look at how *TELECOMMMUTER* implements it various features to make laptop-to-PC communicating almost effortless.
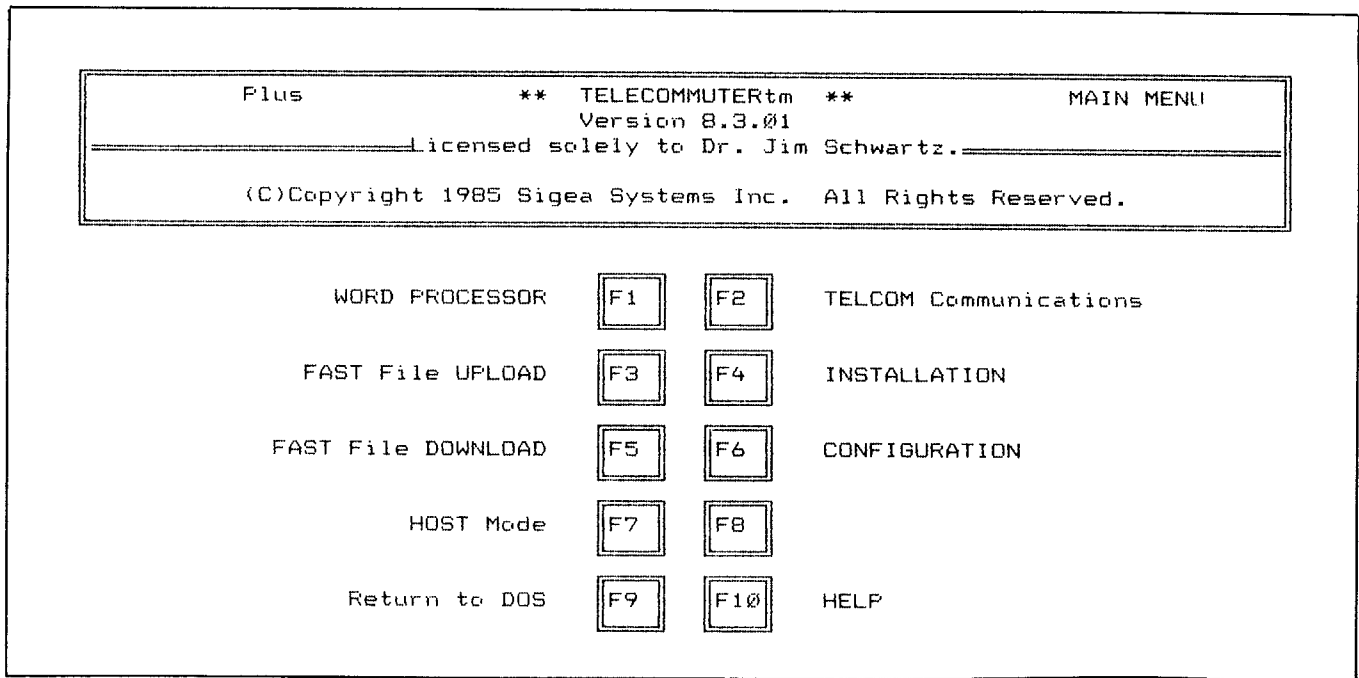
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┌──────────────────────────────────────────────────────────────────┐
│   ┌──────────────────────────────────────────────────────────┐   │
│   │  Plus            **   TELECOMMUTERtm  **        MAIN MENU  │   │
│   │                    Version 8.3.01                         │   │
│   │ ═══════════════Licensed solely to Dr. Jim Schwartz.═════  │   │
│   │                                                           │   │
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│   └──────────────────────────────────────────────────────────┘   │
│                                                                    │
│                                                                    │
│        WORD PROCESSOR    │F1│   │F2│    TELCOM Communications     │
│                                                                    │
│        FAST File UPLOAD  │F3│   │F4│    INSTALLATION              │
│                                                                    │
│        FAST File DOWNLOAD │F5│  │F6│    CONFIGURATION            │
│                                                                    │
│             HOST Mode    │F7│   │F8│                             │
│                                                                    │
│           Return to DOS  │F9│   │F10│   HELP                      │
│                                                                    │
└──────────────────────────────────────────────────────────────────┘
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Figure 1: *TELECOMMUTER*'s opening menu.

Word Processing

TELECOMMUTER includes a fine text editor that rivals dedicated word-processing programs in text manipulation operations. While not a *WordStar 2000*, the editor supports sophisticated, yet easy-to-use functions such as instant onscreen reformatting, DOS access from within the edit mode, change subdirectories, search/replace, cut/paste, copy, underline and boldface (and an optional font of your own choice), graphics characters, nonbreaking spaces, soft hyphens, embedded printing commands, automatic titling/page numbering, print to screen/disk/printer, indent/outdent, and other useful features.

The keyword here is "useful," since the overall quality of *TELECOMMUTER* rests in how the program interfaces with the writer. First, the program is a cinch to install for your specific computer/modem/printer combination. You can move between, say, telecommunications and word processing in a flash (the program is exceptionally fast in all of its facets). And because *TELECOMMUTER* uses ASCII files, it works with just about any other word-processing, spreadsheet, or database-management program. With *TELECOMMUTER*, your laptop and PC essentially become one unit. Not only is there an almost identical telecommunications-software interface provided, but you even get a RS-232 null-modem cable, specifically configured for both the laptop and the PC, that accommodates direct-file transfer of data.

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┌─────────────────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────────────────┐    │
│  │        Plus              **  TELECOMMUTERtm  **          INSTALLATION  │    │
│  │                         Version 8.3.01                                │    │
│  └──────────────────────────────────────────────────────────────────────┘    │
│                                                                               │
│    1. Computer model:         IBM-PC        10. Boldface-on string:    ^[E    │
│                                             11. Boldface-off string:   ^[F    │
│  Set up items 10-15 for:══════════════════12. Underline-on string:    ^[-1   │
│    2. Radio Shack printers                  13. Underline-off string:  ^[-0   │
│    3. Epson MX-80, IBM Dot Matrix           14. Optional-on string:    ^N     │
│    4. C.Itch 8510, NEC PC-8023A             15. Optional-off string:   ^T     │
│    5. Diablo 630                                                              │
│    6. Custom Printer A                      16. Modem type:       Smartmodem  │
│    7. Custom Printer B                       17. Reset:      AT E101V0 S2=255  │
│                                             18. Answer:             AT S0=2   │
│    8. Save 10-15 as Custom Printer A         19. Dial prefix:          AT DT  │
│    9. Save 10-15 as Custom Printer B         20. Dial suffix:                 │
│                                             21. Hang-up:        AT H S0=0     │
│  Type item number to change: 1              22. Command terminator char:  13  │
│                  ──                         23. Command turnaround wait:  300 │
│  ┌──────────────────────────────────────┐  24. Check for modem echo?    YES  │
│  │ <Arrow keys>  select item            │                                    │
│  │ <Enter>  change selected item        │  25. Use color scheme?        1    │
│  │                                      │                                    │
│  │ <F8>  save and return to MAIN MENU   │                                    │
│  └──────────────────────────────────────┘                                    │
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Figure 2:   TELECOMMUTER's "Installation" Menu

Fast File Transfer & XModem

While you might buy this program for the word processor alone (available as "Write-It" for $125, including file-transfer capabilities but not the null-modem cable), it's the telecommunications feature that will amaze you. Direct file transfers between Tandy laptops and the IBM, using the supplied null-modem cable, occur at 9,600 bps. When dialing an information service from your PC, the "telecom" sub-program executes user-designed command files (for automatic dialing and action parameters) and allows both ASCII and XModem (binary) transfers.

Host Mode

Here's where TELECOMMUTER really shines. Say you are at a conference and want to send notes taken on your Model 200 to your PC at home, and there's a file of data you wish you had brought with you, but forgot. Both demands are readily met as you access your PC (of course, you left it on with TELECOMMUTER loaded and waiting in "Host Mode"), upload the conference notes, and download your forgotten file—all at a respectable 300 baud rate. With your laptop you are in control of your PC: you can access all DOS commands from afar, just as if you were sitting at home. Also, others can call up your homebased PC, kind of like a mini bulletinboard, and you have up to eight different access levels to guarantee your PC's data security.

VT100 Emulation

This feature is vital if you are attempting sophisticated communications (i.e., more than just transferring ASCII files) between your PC and a Digital Equipment Corporation (DEC) VAX or other non-IBM computer running UNIX or XENIX. As much as IBM-PC disciples would wish, there are many other "valid" operating systems in the world—not all of which respond to the command strings native to the IBM and compatibles. The VT100, a DEC terminal, has been around a mite longer than the IBM PC; therefore, many folks have designed hardware and software to work specifically with the VT100, especially when the terminal is interfaced with a minicomputer (as is the case when you access an online information service such as *The Source*). Making your IBM or Tandy PC think it's a VT100 is as easy as hitting the "Return" key when prompted to do so by *TELECOMMUTER*.

Final Analysis

The lure of laptop computing is greatest for those who write on the run; journalists, business people, and the academic who still has the Kerouacian urge to get "on the road" to conferences. Until *TELECOMMUTER*, interaction between laptop and PC was possible, but the effort required to accomplish the task—software and hardware handshaking—was less than simple. *TELECOMMUTER* works on either floppy- or hard-disk systems, and you need to keep the original program disk in the "A" drive (the "key-disk" concept), although you can receive a copyable program disk for $25. A demonstration disk is also available for $10. Sigea Systems' motto says it all: *TELECOMMUTER* makes communicating "So Simple" that once you try it, you'll wonder why you waited so long to tap the real-time creativity and efficiency inherent in laptop computing.

Manuscript Submissions Welcome

The *Newsletter* welcomes article submissions that pertain to word-processing, text-analysis, and research applications in professional writing situations. Also, hardware and software reviews are accepted, but please **contact** Dr. Jim Schwartz, Hardware/Software Review Editor, before submitting them (call Jim at 605-394-1246). Manuscripts either may be submitted as hard copy or on 5¼" diskettes using *WordStar* (3.xx), *WordStar 2000*, or standard ASCII code. If submitting disks, please make sure they are formatted either in MS-DOS, PC-DOS, or a popular CP/M format (Kaypro, Zenith, etc.) The Editors reserve the right to edit manuscripts, if necessary. If you want your manuscript or diskette 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, 501 E. St. Joseph, Rapid City, SD 57701-3995. The Editors may also be reached through *CompuServe* (70177,1154) and *The Source* (AAH500)