TANDY LAPTOP COMPUTING MARCH 1991 -VOL. 8, NO. 1

TERRY KEPNER'S

portable 100

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A MONTHLY PUBLICATION (EXCEPT COMBINED JULY/AUGUST ISSUE)

NewsNotesNewsNotes

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January 24, 1991

TANDY COMPUTERS SELECTED FOR SUPER BOWL MEDIA CENTER

Tampa, Fla. -- Before and after the game, sports writers at the 1991 Super Bowl will be using Tandy® portable computers to relay game highlights and articles to their newspapers, magazines, radio or television stations.

At the request of the Professional Football Writers Association, Radio Shack® has equipped the National Football League Media Center with Tandy® 102 laptop computers and dot matrix printers.

"I've used the product for years and it's been my experience that up to 90 percent of our writers use some form of the Radio Shack product. It's been the most durable and up-to-date product to fit our needs, and for as long as I can remember, it's been the model of choice for professional football writers," said Don Pearson, president of the Professional Football Writers Association.

According to the association's Super Bowl Task Force, the computers were chosen for their ease of use, durability, convenient size and weight, long battery life, and built-in internal modem.

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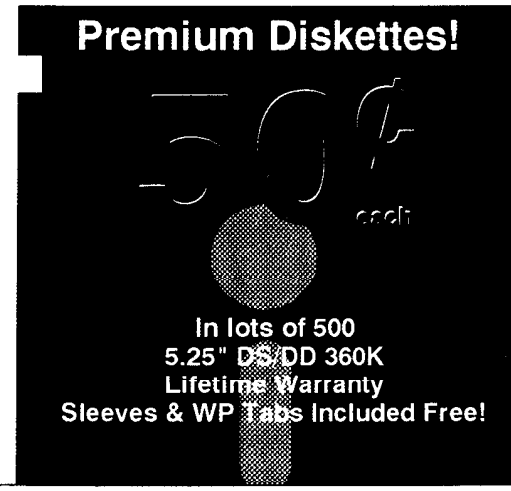

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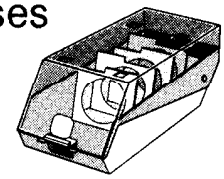

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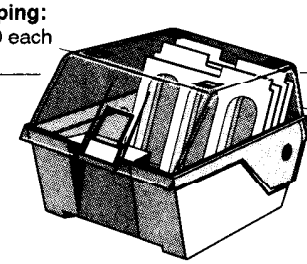

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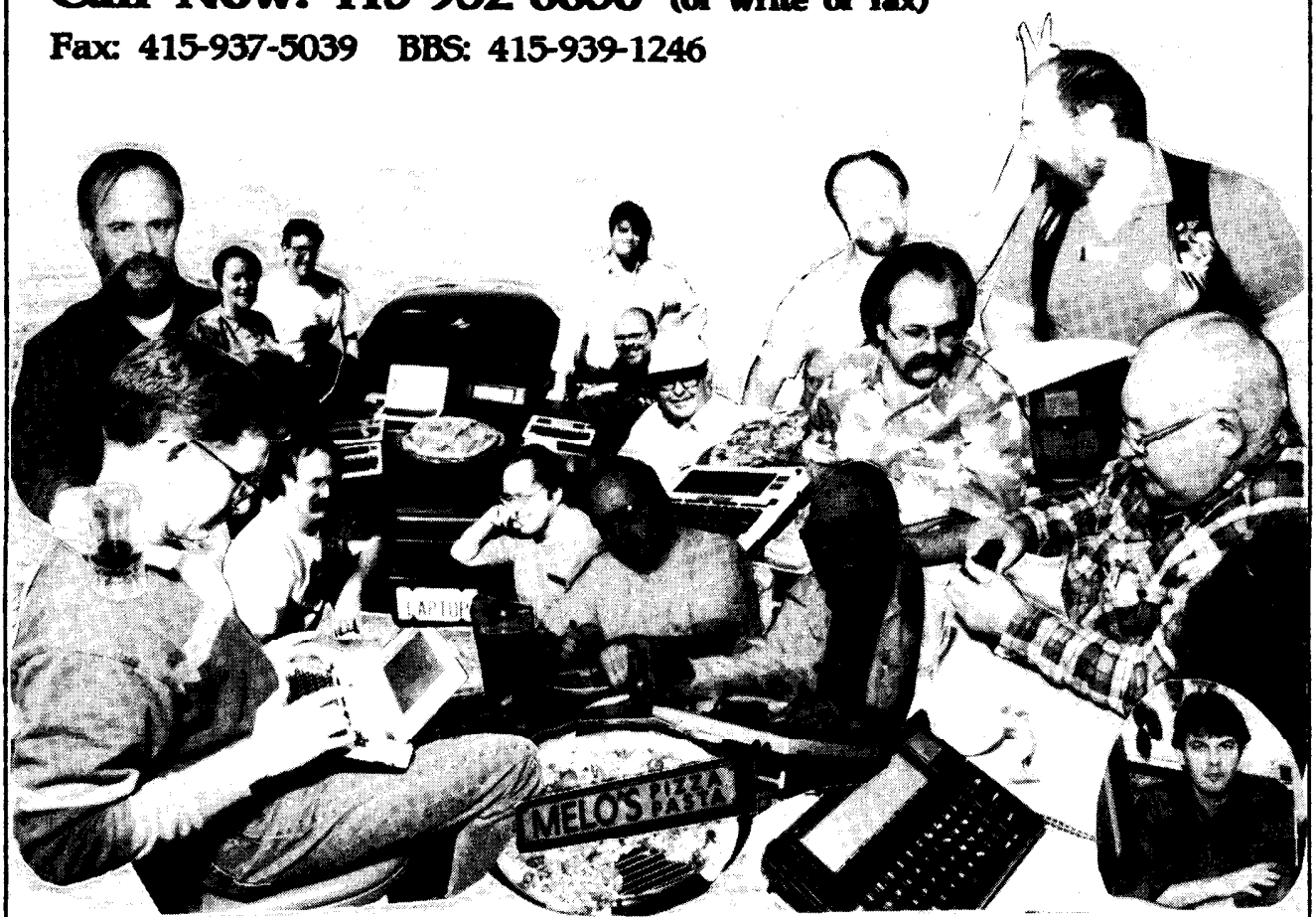

Send a picture of you using your laptop. We'll put you in our ads.

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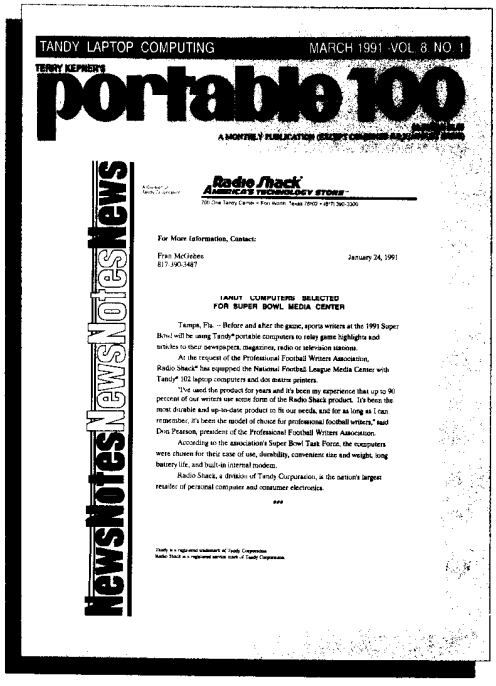
VOL. 8, NO. 1
March 1991

ON THE COVER:
Tandy 102—still the computer of choice for professionals!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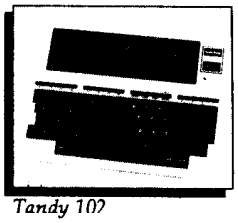
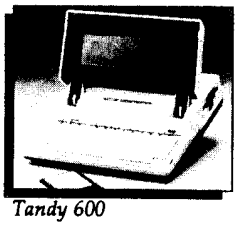

Tandy 102

BACKPACK A DRIVE TO YOUR PORTABLE 8
by Terry Kepner
Add an external disk drive to your MS-DOS portable, even if it doesn't have an external drive port!

Tandy 200

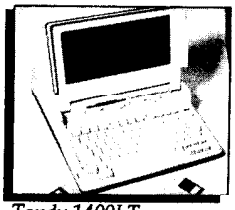
TWPKIT FOR THE WP-2 10
by Gene Wilburn
How to convert .DO files to ASCII, Wordstar, *and* WordPerfect *files.*

FILER AND ADDRESS BOOK 12
by George Sherman
A look at two of DeskMate 3*'s major programs.*


Tandy 600

TEXT... PLUS! 14
by James Yi
A program for your Tandy 100/102 or 200 that will supercharge the built-in TEXT *editor!*

DEPARTMENTS


Tandy 1400LT

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ROM WITH A VIEW

Dear Friends:

Portable 100 has a new publisher—me. Scary, huh? Well, it is for me. But it's a necessary step and, I believe, a positive one. It's time for some serious changes here, and I'm just demented enough to make them. We have a lot to discuss and not much space, so let's get started. Please pay close attention, **because this involves you!**

You long-timers know the trouble we've had delivering *P100*. For new readers, here's a short version: We've had some hard times and bad breaks. As much as Terry and I love this magazine, our readers, and our machines, we're more writers than businessmen. Readers have stood loyally by us, and we feel we owe them.

So I've decided, albeit reluctantly, to become the businessman (the "suit") we need to make *P100* survive and grow. So what do I do now?

I fix *P100*. Cut costs. Increase revenues. Expand coverage. And do other suit-like things to turn it around. Steps #1 and #2 are immediately apparent: We've adjusted (one last time) our cover date to March 1991 and switched to a less expensive paper stock. The savings let us put more than one issue "in the hopper" at a time, so that despite temporary fluctuations, we can ship REGULAR MONTHLY ISSUES which you'll receive in the month preceding the cover date.

Step #3: With more of you owning PC's and Mac's, someone's always asking how to make their Model 100-family computer work with their other machine. We're going to address that. And we'll take MS-DOS users by the hand and make that "DOS box" as easy to use as a "Model T." George Sherman already covers *DeskMate*, and this month, Tony Anderson launches his MOVING UP column to help you move painlessly from the Model 100 world to the PC world. Tony's well qualified.

Step #4: We will not slight the trusty Model T's. No way! They're still ideal for most jobs. (See this month's cover for proof!) As James Yi's *TEXT+* in this issue shows, their usefulness continues to increase. *TEXT+* alone is worth the cost of a year's *P100* subscription. It's one of the best Model T utilities I've ever found!

There's more, but I have a word limit. In brief, I'm gonna bust my newly-corporate li'l buns to grow *Portable 100* into the most important Tandy laptop peripheral you can own. Bigger and better. It'll be tough, and I'll need to be aggressive. Moreover—are you ready?—**YOU'RE GOING TO HAVE TO HELP!**

Here's what I need from you: First, I'll be telling advertisers it's worth advertising in *P100*. **You** must back me up! When something you need is available from several sources, buy it from our advertisers and thank them for their support. But don't stop there! Take one more step: Tell the competition you **didn't** buy from them because they don't support **you** and **your** magazine. Collectively, you have great power over advertisers, because **you're** spending the money they want. Vote with your dollars!

I also need your input. We read your letters and take them seriously. But I want more. Lots of 'em. Tons of 'em! Tell me what you like and dislike. Tell me what you want: new stuff, old stuff, Model T stuff, MS-DOS stuff, ideas, horoscopes, racing forms, whatever. Flood me with mail.

I want *Portable 100* to be your most important magazine—tell me exactly what will make it so. Your input, plus active support for advertisers (and active harassment of non-advertisers who are ignoring you), will help me to grow the magazine **YOU** want.

Good news: Look for some great "new" Model 100 products in next month's issue!

Bummer news: Postal rate (and other) increases could force our subscription price back up to $24.97/year, quite likely without warning. If you've thought of renewing or extending your sub—do it NOW!

Nuge

Toolbox

Manuscripts were typed into Microsoft Word 3.0 on a Tandy 1400 HD, where they were edited, spell-checked, and had basic format instructions inserted. From there they were loaded into a Tandy 4000 (80386 CPU, Tandy EGA Monitor, Tandy LP-1000 LaserPrinter) desktop computer and placed into Aldus' IBM PageMaker 3.01 Once there, design decisions on photo, figure, and listing sizes and placements were made. Here, pull quotes are placed, headlines, intros, and bylines are sized and positioned, and advertisements positioned.

Normally, the Tandy LP-1000 is capable of emulating only a Hewlett Packard Laser Printer Plus, but with the addition of the Destiny Technology Corporation (300 Montague Expressway, Suite 150, Milpitas, CA 95035. (408) 262-9400) PageStyler 4.5MB kit, the LP-1000 is turned into a fully-compatible PostScript printer, with all 35 native fonts that are found in the Apple LaserWriter Plus printer. The Destiny PageStyler is available through the Tandy Express Order Hardware system.

Page previews were output from the Laserprinter. When everyone was satisfied with the appearance, final pages were output and artwork and lineart ads were positioned. The finished magazine was then delivered to the printer, who printed it, labeled it, and mailed it to you.

TERRY KEPNER'S **portable 100**

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Terry Kepner

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Mike Nugent

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Mike Nugent

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CONTRIBUTING EDITORS
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POSTMASTER: Send address changes to: Portable 100, Portable Computing International Corporation, 145 Grove Street Ext., PO Box 428, Peterborough, NH 03458-0428.

KEEP BIAS OUT OF PORTABLE 100

My thanks to *Portable 100* magazine for publishing excellent articles that are of great value to us loyal and dedicated users of Tandy's wonderful line of portable computers. I enjoy the magazine, even with its faults, not the least of which is the lateness of many of its issues. Nevertheless, most of the information contained is still of great value.

The late issue problem is a minor one compared to the continuous carping about Tandy and the out-of-place, off-color and politically biased snide remarks that Michael Daigle habitually feels compelled to include as "color" or perverted humor in his IDEA BOX columns.

So far in 1990 I have received six issues with the 1990 date: January through May plus November. Each of Daigle's columns in all but the March 1990 issue contains one or more snide, nasty, derisive, disrepectful and/or politically biased remarks about Tandy and/or Presidents Reagan and Bush, Vice President Quayle, and Republicans.

Except for the Model 100 line, Daigle seems to have a strong dislike for and bias against Tandy. Based on Tandy's outstanding success and the enthusiastic acceptance of Tandy computers by millions of satisfied customers, I must conclude that Tandy is more right and knows much more than Daigle does. It's obvious to me that Daigle isn't nearly as smart as he thinks he is.

Michael Daigle is entitled to his opinions and biases. But *Portable 100* should not be used as a platform for him to air his bad-taste brand of humor, his personal dislike of Tandy and his political biases. Let's keep all hints of bias and remarks in bad taste out of an otherwise fine magazine.

If Daigle persists in coloring his articles with biased and offensive remarks and *Portable 100* continues to provide him a platform for such remarks, I will have no choice but to cancel my subscription. I hope that such action will not have to be necessary.

Although Daigle may think so, I am not just a country hick from a small town in South Dakota. I am a retired Professor of Electrical Engineering, having spent more than thirty years teaching at a respectable West-Coast University. I probably know more about computers than "know-it-all" Daigle does and I know something about common decency and respect.

Prof. Harold J. Hendriks, Retired
Milbank, SD

Dear Professor:

Thanks for taking the time to write. While it's nice to get fan mail, I also appreciate hearing from those who take a different view of my writing. I noticed that in your letter, you refer to my column as an "article." I think this may be a misconception on your part. An article is, hopefully, an unbiased piece of writing meant to convey factual information. I don't do articles. My column is an essay, a very biased verbal upchucking, a little slice of life in the strange lane. I like to think of my writing voice as Andy Rooney channeling Rod Serling.

Still, I am grateful for your comments. While some might take offense at being criticized, the seasoned writer will see in a harsh critique the opportunity to re-evaluate his work in a new light and will, hopefully, find within himself the maturity to change and to grow, both as a person and as a writer. Thanks again.

Michael Daigle

PS: Dan Quayle really IS a pinhead. Trust me.

Although Daigle may think so, I am not just a country hick from a small town.

From the editor: Harold, I've always tried to keep P100 *light and informal, reflecting my feeling that our lapwarmers are fun as well as functional. I don't want it to be another stuffy, advertising-laden "catalog" like so many others (though I suppose I could live with advertising-laden!). Thus, I've actually published replies to letters to the editor (bad form, I'm told), was once accused of making* P100 *"cutesy" (guilty as charged, but I'm learning), and latched onto Mike Daigle. The "ex-hardware junkie" view in his earliest articles completely blew me away. Have you seen them? And his irreverent style was just what I sought.*

I see his targets as the stuffy "suits" whose mental processes often seem at odds with the real needs of average people. Most visible, of course, are public officials (and who doesn't pick on them, regardless of party affiliation?) and, in P100*'s case, Tandy Corporation. Another magazine recently printed a letter wherein the writer took offense at an author's jabs at IBM.* P100 *is about Tandy laptops, and that's who we pick on.*

I often disagree with Mike, but I'd hate to dictate his "opinions," just as I'd hate to lose you as a member of the P100 *family. Tandy can take the heat, and so can we, if we all don't take ourselves too seriously.*

Thanks for letting us know how you feel, Harold, and I hope you'll stay aboard. I also hope other readers will share their opinions with us, pro and con. (What do y'all say?)

-Nuge

P.S. Mike Daigle really IS a pinhead, too. Trust me.

FINDING MODEL 100'S

I really enjoyed *Portable 100* magazine. I would continue to subscribe, but I have a problem. I have several customers who use my desktop software. I also have software that runs on the Tandy Model 100. I have several prospective customers for my Model 100 software, but they are unable to find any Model 100's for sale.

Therefore, since additional Model 100's are not available, I can't see staying in that particular hardware area. I would appreciate any information, leads, tips, etc., on where to obtain Model 100's or used Tandy 102's. Thank you.

Bob Schoeberl
Minneapolis, MN

Gee whiz, Bob, there are plenty of Model 100's and 102's around! First, check with

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some of our advertisers: Shreve Systems, Pacific Computer Exchange, Ultrasoft Innovations. Also check into GEnie's Laptops Roundtable and CompuServe's Model 100 Forum. I regularly see "for sale" messages for these machines, with average asking prices around $175 for Model 100's and $225 for 102's, depending on condition and extras. Remember to check our Portable 100 *classified ads, and check into the* Portable 100 BBS *(phone number and* TELCOM *stats in our masthead). And of course, Radio Shack still sells Tandy 102's new.*

By the way, what kind of software do you have for these machines? Perhaps some of our readers might find it useful. (And they already have the computers!)

-MN

"ABSOLUTELY RIDICULOUS" ERRATUM

In the interest of accuracy, and to give IBM their due, please note the following correction to my letter of November 6, 1990:

Obviously it is to many people; Tandy rates in the top four with Apple, Commodore, and IBM, and in recent months their personal computer sales are up 10 percent. However, it's not difficult to conclude that Tandy's skill in designing innovations has struck a poor balance with marketing for volume.

The source is Dataquest, Inc., showing shares of the US home computer market in 1989, as follows:

APPLE COMPUTER	24%
COMMODORE INT'L.	19%
IBM	13%
TANDY CORP.	11%
OTHERS	33%

(The growth figure quoted is attributed to Tandy, per Ed Juge, Tandy's director of market planning.)

How accurate the Dataquest survey can be, "based on 540 households using computers," I can't guess, but that's the machine that drives business, as you know.

Michael Synnott
San Diego, CA

MOVING UP

I have recently retired my Tandy 200 notebook computer. Actually, "retired" is a poor choice of words. I passed it down to my 22-year-old daughter, so it is not completely out of service, just feminized and .CO'd into eternal "lock-up."

I have replaced it with a 1400 FD and am suggesting and hoping that you greatly expand your coverage of the Tandy MS-DOS laptops for those of us who have upgraded. Your M100/102/200 info has been invaluable, and we greatly need input regarding the utility, upgrades, and special software for these "traveling companions." Please comment in your I/O column.

Wes Wilson
Livermore, CA

It just so happens, Wes, that what you suggest/hope is exactly what we intend to do! Beginning with this issue (or next—I'm not sure as I write this) we'll launch a new article series entitled MOVING UP, in which Tony Anderson tells us how to make PC-compatible laptops as easy to use as your "retired" Model T!

-MN

Wes, what you suggest/hope is exactly what we intend to do!

NEED *DESKMATE* TIPS

This is being written on a Tandy 1100 FD. My business has me making lots of trips now, so I had to buy this one, because my wife, Linda, likes to use the Tandy 200 for her Girl Scouts. No disks to mess with—just turn it on and go.

But now that I have the 1100 FD I could use a column on using *DeskMate*. For a suggestion: a short article on what files should be on a traveler's disk. It seems that I can only save the *DESKTOP* file to my A drive, but can't update my C:ROM drive. I did it once, but I don't recall how it was done. I'd like to put in a RAMdisk, but again, I don't know how to update the EEPROM.

As far as the *DeskMate* software, I wonder why I can't print a normal page of the spreadsheet. Currently, printing a spreadsheet only gives what is displayed on the screen. As any normal computer freak, I look forward to upgrading, such as an external 3.5-inch drive.

I just got a chance to use the 1500 HD. It is a sweet machine. It has a nice keyboard and screen. What gets me is that it has a 20 megabyte hard drive, a 3.5-inch floppy, and it weighs less than the 1100 FD. I'd get it if I didn't already have two machines.

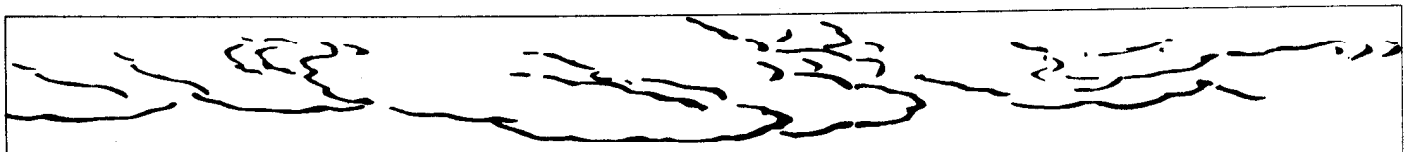
I enjoy your magazine a lot, so keep up the good work. Keep your niche.

Jurgan Almlie
Baldwinsville, NY

Guess what, Jurgan—as you've no doubt already noticed, George Sherman has begun just such a series on DeskMate. *I'm sure that after seeing your letter, he'll do his utmost to solve your problem. Stay tuned, and we'll fill you in, "BY GEORGE!"*

Niche-wise, we'll continue to cover the Model T family. That's where our "roots" are, and those machines remain unmatched for convenience, simplicity, and ease of use. While we'll expand MS-DOS coverage, we won't do it at the expense of the Model T's.

-MN



"Dear Ed"

Our Zen master stumbles on the path to enlightenment.

To: Ed Juge
Director Of Market Planning
& Defender of the 1100FD
Tandy Corporation

Re: Recipes

Dear Ed:

Hello. You probably never expected to hear from me. After all, I'm the guy who said some pretty unpleasant things about the then-new WP-2 word processor and 1100 FD notebook computer.

For instance, you may remember that I accused the designers of the dark green screen with dark blue letters of owning stock in a seeing-eye dog business. I also hinted that the 1100 FD's keyboard was less than satisfactory by suggesting that typing on it was akin to tickling the dead.

You remember now, right, Ed? You were less than pleased with my observations. In fact, you even sent a letter to the magazine (which we published in full) defending the new machines. Remember?

You do? Oh. I was afraid you would. Because I recently became the owner of a new 1100 FD computer, and I ... uh ... well ... I guess it's all right ... well, (sigh), actually, I guess I kinda love it.

All right, Ed, knock it off. It's not THAT funny. All right, I'll wait until you stop laughing ...

... Ed?

... This isn't easy for me, you know ...

... Okay, Ed, that's enough. You're turning all red. That's better. Catch your breath, and I'll tell you about it.

When I wrote that first piece, I had only used the 1100 FD for a few hours. I was telling the truth when I said I didn't like the keyboard or the display. You may recall, however, that I raved about what an exceptional value the machine represented at its retail price of $995.00.

Well, Ed, as you well know, the price (as of this writing) has recently dropped to $799.00. The machine became a little more attractive to me. The Christmas sales brought the price down to $699.00, and I was starting to drool a little every time I walked past the Radio Shack store at the mall. Then came the Coupe de Ville (I don't know how to spell "coo de graw") ...

The local paper had an ad for a Radio Shack "3 day only" sale. Armed with the right coupon, any average citizen, even if he was unarmed, could get a brand new 1100 FD for only $649.00! I couldn't resist. Secure in the knowledge that at 2/3 of the original price I could find a way to be a little more forgiving, I took my new 1100 FD home and prepared to alter my Zen-like mindset to accommodate using a computer that sported a keyboard and display that I wasn't crazy about.

Guess what, Ed? That's not what happened. What happened was, the more time I spent with the machine, the more I liked it. I discovered that the display, while still a little dark for my taste, worked well—very well—under a large variety of lighting situations, many of them far from ideal. The keyboard that I hated seemed better on the second day, and even better on the next day. By the end of the week I was hooked. Now, I have a hard time typing on anything else.

Go figure.

So all right, Ed, you got yourself a great little machine. You were right, and I was wrong. There. I said it. Happy? Are we friends now? Good. So, listen, Ed, now that we're friends and all, I have just one little comment ... *DeskMate* sucks.

Well, I'm sorry Ed, but it does—at least on a little single-drive laptop. I gotta swap disks every time I want to do something. And the built-in word processor? I gotta put a driver disk in just to *print* something? Ick. The word processor doesn't even count words. This makes it pretty hard on a writer.

But don't worry Ed—this isn't a hatchet job. It's actually not that big a problem. I've set the system to bypass *DeskMate* and go straight to the DOS prompt, just like a normal computer. I've been doing a lot of exploring, and I've made an amazing discovery: *Info Select*.

Ed, do yourself a big favor. Cut a deal with Micro Logic Corporation, the people behind the remarkable *Info Select*. Yank the *DeskMate* ROM and replace it with *Info Select*. Heck, just bundle *Info Select* with the 1100 FD. Whatever. If clothes make the man, software makes the machine. And *Info Select* is software extraordinaire.

This program is the new and vastly improved version of the former *Tornado Notes*. It's so powerful, so advanced, it's actually hard to describe.

The easiest way to get a conceptual grasp of the program is to think of it as an electronic desktop containing a pile of electronic Post-It™ notes. The process is simple. Press *N*, and a new window appears on the desktop. Into this window, type whatever you want. When you're done, pres *ESC* twice. That's it—you've created an *Info Select* window.

Just to give you a hint of *Info Select*'s power, each window can hold up to 32,000 characters. And each desktop, or "stack," can hold up to 65,000 windows. Let's go over that again: 32K per window, 65 THOUSAND windows per stack.

Yee-haw, y'all!

So what can you put into a window? Anything you want. Addresses. Notes. Schedules. To-do lists. Facts. Figures. Information. Research notes. Letters. Articles. Stories. E-mail. Absolutely *anything* you want. So how do you find something when you want it?

Every keystroke in every window in your stack can be instantly searched. For example, press *G* to activate the *Get* command. Instantly, a graphic representation of your stack appears on screen, with several small blocks, one for each window, displayed. Let's say you're searching for the word "Wolverine." Type *W*. A couple of the blocks might disappear, windows that don't have a "w" typed in them. Next, type *O*. Some more blocks disappear, windows that don't have "wo" in them. Type another letter or two, and blocks continue to

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vanish. Finally, only a few blocks remain. Press *Enter*, and all the windows that contain "Wolverine" appear in their own little pile, called the *Get* stack. The end result of your search may be something like this:

Joe Wolverine, Insurance Agent
555-BORE
123 Igottagalin
Kalamazoo

Book to buy: I Heard The Wolverines Call My Name *by Willie Sellit*
Synopsis: A dying monk is sent into the woods to spend the last months of his life in peaceful contemplation of the mysteries of life. About 20 minutes into the woods, a pack of frenzied wolverines rips him limb from limb.

Fong's Deli
555-AHSO
1492 Guess Who Sailed The Ocean Blue Lane
Columbus
Comments: German/Chinese food. Eat there, and an hour later you're hungry for power. Makes great pickled wolverine.

Those three windows will be in your *Get* stack. Push the left arrow, and the view flicks back to your 200-note *All* stack. Press the right arrow, and you're right back to your 3-window *Get* stack.

Info Select's (*IS*) rich list of features, its freeform, casual ease of use, and its ability to be used as an instantly accessible memory resident application all conspire to provide *Info Select* with a depth and a scope that I have never seen in a single program before. Believe me, my praise here does not do the product justice.

IS windows can hold pre-determined fields, so you can use *Info Select* as a conventional database. *IS* can export text, so it can be used as a word processor/text editor/e-mail generator. *IS* can import text, so it can cut and paste information from one application into a completely different one. *IS* can draw lines, so it can be used as a simple, easy to use form generator. *IS* can be used as a Rolodex™. As an appointment book. A memo pad. A calendar. A word processor, a form maker, a notebook, a phone dialer, a personal information manager, a research assistant, a reference tool, and on and on and on.

I wish I had more room to rave about this program, but I think the point is made: Here is a revolutionary program that is capable of transforming a humble little DOS box into a powerful tool that is defined only by the limits of the imagination of the individual user.

It is the single finest piece of software I have ever seen. Put *this* in the ROM of an 1100 FD, and you will have a Toshiba killer on your hands. Buy a copy for yourself, Ed, and see what I mean. *Info Select* is available from most national software chains, and retails for under $100.00. They *even* offer a 30-day money-back guarantee!

That's about it for now, Ed. Since I don't have your address, I've asked Mike Nugent to forward this to you (after swearing him to secrecy. I mean, after what I wrote before, can you imagine how embarrassed I'd be if word of this got out? But I know I can trust Nuge.)

By the way, I named it "Farfel." I don't know why—the name just came to me while I was drinking some hot chocolate and nibbling a Nestle's Crunch bar.

Oh, speaking of food, I seem to have a large supply of crow in my freezer. Got any good recipes?

Your Pal, *Michael Daigle*

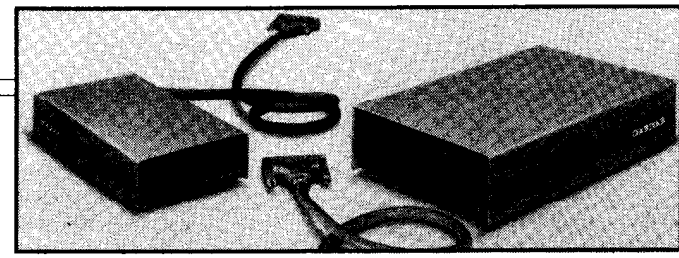
For more information:
Info Select—$99.95
Micro Logic, P.O. Box 70, Hackensack, NJ 07602, (201)342-6518 voice, (800)342-5930 toll-free, (201)342-0370 fax

COMPATIBILITY: Tandy 1100, 1400, 1500, 2800, and most other MS-DOS computers.

Backpack A Drive to Your Portable

Add an external floppy disk drive to your Tandy MS-DOS laptop — without any hardware modifications!

By Terry Kepner



The MicroSolutions Backpack External Floppy Disk Drive.

Finally, a way to read 5.25-inch disks with your portable computer! The MicroSolutions *Backpack*, featured on our December '90 cover, plugs into *any* MS-DOS computer with a printer port and gives it instant access to a 5.25-inch, without sacrificing your printer port. This means that you are no longer isolated from friends and colleagues with computers that use 5.25-inch disk drives; you can easily share data files and programs with them at a moment's notice.

Plus, you can still use your printer via the printer port at the back of the Backpack disk drive unit. If you want, you can make a permanent installation beside your printer, plugging in the disk drive whenever you need the printer (no cable swapping that way).

THE PACKAGE

The Backpack is actually a disk drive (either 5.25-inch or 3.5-inch) with an attached three-foot long cable that plugs into the standard DB-25 female connector all MS-DOS computers use as a printer port. The 5.25-inch unit is 10.5-inches deep by 6-inches wide by 2.25-inches tall, and weighs only 4 lb. 13 oz. (the external power supply weighs just 10 oz.). While it wasn't designed to be portable, its small size and weight make it handy enough to pack along during a trip. The 3.5-inch disk drive, for people who simply want a second floppy for their single-drive computer or access to 1.44 MB floppy disks, is smaller and lighter, but I didn't have a physical unit available to measure.

The disk drive comes with installation software and utilities to use the extra capabilities of the drive, on both 3.5-inch and 5.25-inch floppy disks. The software is self-installing, and easy to use.

SOFTWARE

Installing the software couldn't be easier: simply run the program *BACKPREP.COM*. It asks if you use a hard drive to start your computer, then asks what drive letter you use for the start up. The best feature of this is that after loading the *BACKPREP* program, you don't have to refer to the Backpack distribution disk again. All the utility programs are in memory (and only 128K is required), so there's no disk swapping required. Thus, simply place your start-up disk in the drive and answer *BACKPREP*'s questions to easily and quickly install the programs on your disk.

The programs installed are: *BACKPACK.SYS, BPFORMAT.COM, BACKFMT.COM,* and *BPDRIVES.COM*. The *BACKPACK.SYS* is the most important program, yet it takes only 10K of resident RAM to work. This program is installed in your computer's *CONFIG.SYS* file, if you're using one. If not, then the *BACKPREP* program creates one for you. The next time you start up your computer, *BACKPACK.SYS* will automatically load and test for the presence of the Backpack disk drive. If it isn't there (for example, you're working outside), the system tells you it can't find the drive and waits for you to press the *ESC* to acknowledge seeing its message (this can be turned off if you don't want it to wait for you). If it does find the drive, it tells you the drive letter assigned to it. This is handy, because it takes account of any RAM drives and hard drives you may have enabled. On my system it is given the drive letter *F*.

Once installed, all the standard DOS programs can be used: *DIR, FORMAT, TREE, COPY*, and so forth. As yet, I haven't found any that fail. You can even make the drive the default unit and run programs from it. We tested a 5.25 inch version of MicroProse's *Combat Copter* on the 1100 FD this way. It worked great with the CGA graphics, although some things were difficult to recognize on the LCD monochrome display.

UTILITIES

Should you miss the drive letter assignment message, you can easily check it with the utility *BPDRIVES*.

Another utility simplifies your many choices in formatting disks. *BPFORMAT* lets you create 360K, 1.2MB, 720K, 1.44MB and 2.88MB disks, depending on which model Backpack drive you purchased. In the 5.25-inch versions, you are limited to either the 360K format or the combined 360K/1.2MB disk format. The other formats are for 3.5-inch disks, and again you have two versions available, one for the standard 720K/1.44MB diskettes and the other for a special drive that adds the 2.8MB format to the other two.

Because I used the 5.25-inch drive, I will restrict myself to a discussion of those features only.

BPFORMAT works in addition to the standard *FORMAT* command supplied with MS-DOS. It includes special options such as starting format immediately without prompting you to insert a disk, skipping disk verification after formatting, initializing a previously formatted disk by simply clearing out the

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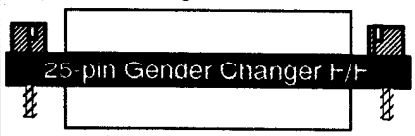

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directory, copying system files to the disk after format, and asking for a volume label after format or initialization.

The next utility, *BACKFMT*, lets the drive format disks while you do other things with your computer. The first time you use it, it asks you to configure it for your special needs, which include changing the background access key (how you call it up while doing something else), how the system tells you it has finished formatting a disk (do nothing, beep, pop up a window over your application summarizing the format, beep and pop up a window), whether to verify a disk after format, and if you are using a color monitor. After answering these prompts, the program tells you how much RAM it is using (about 10.7K) and returns you to DOS to wait for your formatting orders.

If you intend to format a bunch of disks prior to a backup of your hard drive, or to make a series of backups of distribution disks you've acquired, this program is a real time saver.

You can, of course, select the format, limited by which drive you've purchased. Unlike all the other 1.2MB disk drives I've used, this one let me format a 360K disk as if it were a 1.2MB disk. It only formatted to 860K (the other 320K was rejected as bad sectors), but it effectively more than doubled my disk capacity without making me buy disks that cost triple the normal 360K price. I'm not sure how reliable the disk is in this situation, but it is something for me to experiment with in the future.

The final utility is not included with the *BACKPREP* program; instead it is on the distribution disk. Fortunately, it is a specialized program that will rarely be used more than once, if at all. Each Backpack drive is assigned a number from 1 to 100. If you purchase two drives, the odds are 100 to 1 that they will have different identification numbers, with whichever drive having the lower number being assigned the lower drive letter (i.e., if you have two drives number 23 and 58, the 23 will be assigned the first drive letter, *E*, and the 58 will receive next one up, *D*). In the event you receive two drives with the same number, or should you want to reverse the drive letter assignment, *SETID* will fix that problem.

SUMMARY

I like the little drive, and find constant use for it with the many programs I have on 5.25-inch diskettes (from before 3.5-inchers caught on). Plus, I frequently purchase public domain software, which always costs lots more when supplied on 3.5-inch disks instead of 5.25-inch disks. I happen to know that the cost differential between the two is much less than $1, so why should the 3.5-inch disks be so much more expensive? The only answer is greed on the part of the suppliers. Thus, the drive not only pays for itself in convenient access to 5.25-inch software, but it lets me buy cheaper software and actually saves me money. Not many products can do that!

Editor's note: Backpack external drives (and lots of other great accessories) are available from one of our advertisers: Microsense, 370 Andrew, Leucadia, CA 92024. *See their ad on page 5.*

❑

PRODUCT SPECIFICATIONS & SUPPLIERS

Backpack External Disk Drives
- Model 3631 (360K 5.25-inch)—$349.00
- Model 1231 (360K/1.2MB 5.25-inch)—$349.00
- Model 1430 (720k/1.44MB 3.5-inch)—$349.00
- Model 2830 (720K/1.44MB/2.8MB 3.5-inch)—$425.00

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COMPATIBILITY: WP-2 and MS-DOS computers.

TWPKIT for the WP-2:

Convert WP-2 .DO files to ASCII, WordStar, *and* WordPerfect *formats, simply and easily!*

by Gene Wilburn

The "Widg," as I've dubbed my Tandy WP-2, goes with me everywhere. I use it on commuter trains, on airplanes, at the cottage, and even in my easy chair at home. I compose the first drafts of all my freelance writing assignments with it.

Only a seriously dedicated masochist would do any extensive editing with the thing, however. Give me a "DOS" (MS-DOS) computer, a VGA monitor, and *WordStar* or *WordPerfect* for that job. The same goes for formatting and printing.

Unfortunately, converting a WP-2 file into something useful for further editing in DOS presents a few problems. The WP-2 does a poor job of file conversion. Its internally-created ASCII files do not contain the CR/LF (carriage return/linefeed) line endings required by DOS.

Worse, its ASCII upload facility through *TELCOM* inserts superfluous, highly undesirable, CR's at every 80th character (even in the middle of words), and there is no built-in facility for preserving underline or boldface attributes. Furthermore, in the opposite direction, the WP-2 does not clean out the DOS LF's (linefeeds) from a downloaded DOS ASCII file.

To overcome these limitations, I wrote some DOS-based utilities to convert native WP-2 *.DO* files to and from ASCII, *WordStar*, and *WordPerfect* formats. After testing them for my own use, I collected them together as a package called *TWPKIT* (for *Tandy <-> Word Processing Tool Kit*) and placed them in the public domain. They are free—there is no shareware charge for their use.

TWPKIT is available from two sources. It can be downloaded from Library 15 of the Model 100 Forum (GO M100SIG) of CompuServe where it is listed as *TWPKIT.ZIP*. (If you download it, you must use the DOS utility *PKUNZIP* to unpack the file before you can use its contents.) An unpacked, ready-to-use version is also included with the purchase of the *WP2DOS* transfer program from Club 100 (see their ad on page 1). *[TWPKIT is also available on the* Portable 100 BBS. *See our masthead for BBS phone number and* TELCOM *stats.—MN]*

```
Tandy DO to Word Processor File Conversion Program Vx.x
          Copyright (c) 1990 G. Wilburn
             (Default values in CAPS)

To: <A>scii Word<S>tar Word<P>erfect (A/s/p) ? <CR>
Output by <P>aragraph or <L>ine-by-line (P/l) ? L<CR>
Maximum line length (default = 65) ? 52<CR>
<S>trip, <L>eave, or <E>xpand control chars (S/l/e) ? <CR>

Name of Tandy DO file to be converted -> TEST1<CR>
Name of word-processing output file -> TEST1<CR>
.................................
Conversion complete. Convert another file (Y/N) ? <CR>
```

Figure 1. A sample session, converting a WP-2 file to ASCII with a line-by-line output and a maximum of 52 characters per line. Program prompts are shown in normal text; user responses are shown in bold. <CR> represents pressing the carriage return (ENTER) *key.*

The *TWPKIT* consists of three utilities, plus documentation. For ease of use, all the programs use a prompted interface, rather than command line options.

T2WP

The program of most interest is *T2WP.EXE* (Tandy to Word Processing). It converts WP-2 *.DO* files into ASCII, *WordStar*, or *WordPerfect* files.

A sample session, for converting a WP-2 file to ASCII with a line-by-line output with a maximum of 52 characters per line, would look like Figure 1.

When you select a default value, you only have to press the carriage return (*ENTER*) key. You may omit the extension *.DO* from the Tandy file—the program assumes it. If you omit an extension from the output file name, the program will automatically append *.TXT* for ASCII files, *.WS* for *WordStar* files, or *.WP* for *WordPerfect* files. You may also supply any extension you wish.

The dots show activity. A dot appears on the PC's screen for every paragraph it finds in the WP-2 file. The line after the dots is a convenience option for converting more than one file at a time.

There is an option to strip out control characters. *WordStar* users, however, may elect to embed control characters in their *.DO* files by using the undocumented WP-2 keystroke *^V* (control-V) plus a control character, for instance, *^V^S* for underscore and *^V^B* for boldface. If you elect to <*L*>eave these, they will be carried into your *WordStar* file intact.

T2WP is writer-oriented. It keeps boldface, underscore, tabs, and the high-bit characters (e.g., foreign-language characters)—the principal features used in writing for publication.

It makes no attempt to preserve the page breaks, soft returns, margin settings, tab settings, centering, headers, or footers in the original *.DO* file. Most writers will prefer to do any special formatting in a PC word processor.

For WP-2 files that get converted to ASCII, underscore and boldface attributes are translated into visible markers:

 Begin italic (underlining)
 End italic
 Begin boldface
 End boldface

This notation is based on the text markup scheme suggested by the *Chicago Guide to Preparing Electronic Manuscripts* (University of Chicago Press, 1987).

One last note on *T2WP*. Its output file formats are currently limited to *WordStar 4.0* and *WordPerfect 4.2*. Future releases of *T2WP* will include the *WordStar 6.X* and *WordPerfect 5.X* formats.

WP2T

Every so often I like to take an existing word processing file and load it into the Widg to carry around for light editing or polishing. The *WP2T.EXE* (Word Processing to Tandy) program does this by converting ASCII, *WordStar 4.0*, or *WordPerfect 4.2* files to the WP-2 *.DO* format.

There are some cautions here. *WordStar* and *WordPerfect* have significantly richer file formats than the WP-2. A conversion to the WP-2 will only work well on simple files that have exact or near-exact matches. Underscore, boldface, tabs, and extended graphics characters all translate well. *WordPerfect* hyphens are converted to standard hyphens.

If a *WordStar* or *WordPerfect* file has a lot of embedded formatting information, the best strategy is to convert it to ASCII first, using the *WS* or *WP* utilities.

Another caution is that the DOS file cannot be larger than what the WP-2 can hold in memory—22K max.

LASCII

The final program in *TWPKIT* is a DOS utility that converts line-by-line ASCII files into one-paragraph-per-line ASCII files. *LASCII* stands for "long ASCII" because of the long lines it creates. Some folk I've met call this "flat ASCII."

I use *LASCII* to prep DOS ASCII text files for use in the Widg when I want to preserve paragraphs as logical units. Another caution is in order, though: it mashes lists.

FILE TRANSFER

All the programs in the *TWPKIT* are DOS programs and run on a PC, not on the WP-2. Conversion takes place on the PC. A WP-2 file must first be transferred to a PC before it can be converted. A newly created *.DO* file on the PC must be transferred back to the WP-2.

A standard way to transfer files is to attach a null modem cable between the PC and WP-2 serial ports and use the Xmodem protocol of both *TELCOM* and a DOS communications program like *Telix* to do the transfer. The docs that accompany *TWPKIT* explain this in more detail.

A more elegant way to transfer files is to purchase a copy of Chris De Herrera's *WP2DOS* program from Club 100 (see their ad). *WP2DOS* makes the PC look like a Tandy Portable Disk Drive to the WP-2. Transfers become unbelievably convenient, and as a bonus, the *WP2DOS* disk includes *TWPKIT*.

You still need a null modem cable, even with *WP2DOS*. If building your own doesn't sound like a fun exercise, you can pick up the necessaries at Radio Shack, or you can purchase an excellent null modem cables from Club 100.

CONCLUSION

If you wish to exchange files between your WP-2 and your desktop word processing system on a regular basis, you will find this works well if you do not expect the WP-2 to be more than it is—a simple electronic notebook. To gain maximum synergy from your two systems all you have to do is follow one basic rule: KEEP THINGS SIMPLE!

❑

Gene Wilburn, a Toronto-based MIS manager and freelance writer, is the author of TWPKIT *for the Tandy WP-2. His CompuServe ID is 72435,732*

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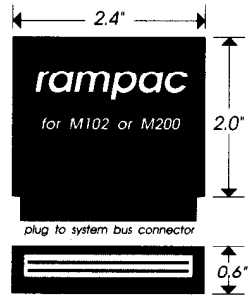

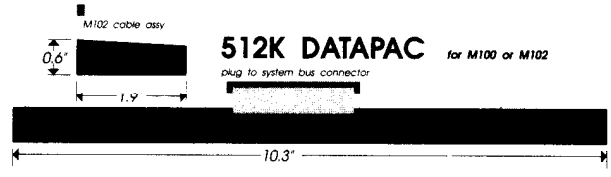

[1]RAM file storage as compared to disks provide enhanced laptop portability: Smaller size & weight. Much longer battery life with resulting convenience and lower cost. More reliable with no moving parts to wear out. Faster operation and resistant to harsh environments.
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Circle 41 on reader service card.

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Filer and Address Book

George looks at two of DeskMate's major programs.

by George Sherman

In my last article I said that we would next look at three of the major programs that come as part of the *DeskMate* package: *Filer, Address Book,* and *Calendar.* However, I find that I have so much to tell you about these that it's impossible to cover everything in the space allotted. Therefore, this installment will cover only *File* and *Address Book,* and I will devote the next installment entirely to *Calendar.*

FILER

Filer consists of three parts: *Form Setup,* with which you design the format of the "card" or "page" in which you'll enter the information; *Filer Report,* with which you design the format of the reports of be obtained from the information entered; and *Filer* itself, which presents you with the pre-designed card or page ready for you to enter information.

"With (*Filer*), you can keep records of any kind using custom-designed forms. Once you have entered information in a *Filer* database, you can locate and sort records based on criteria you set, and generate reports that contain information in the layout you specify in *Form Setup.*"

In designing your card or page, consider the information which will be most useful to you. Make the page pleasant to look at or functional, whichever you prefer. Don't be afraid to experiment. If you don't like what you've done, you can either kill the whole file and start over, or move items around on the screen until it satisfies you. It's up to you. You'll find that *Filer* and its related program, *Form Setup,* are two of the most usable programs you'll ever come across.

You may enter cosmetic text, or even graphics, if you're handy with *DeskMate*'s *Draw* (to be covered in a later installment). You can place the entries anywhere on the screen, label them to the left or above, or completely hide the labels, whichever you prefer. You can place borders around each item. You can designate whether the labels are to appear in plain, bold, or underlined text. You can choose whether a particular entry is to be alpha or numeric. And you can put format characters in the entry fields, such as dollar signs, commas, decimal points, slashes, or any other character you choose, to keep from having to type them each time. A field designated as alpha will accept any character, even numerals. A field designated as numeric will accept only numbers. Another nice feature is that if a decimal point is placed in a numeric field, any number entered will be placed in the field to the left of the decimal point until you type the "." Any subsequent entry in that field will then be placed to the right of the decimal point. If you do not type the decimal point, *Filer* will automatically include *00* for any number which does not have a decimal value. The number of columns you designate to the right of the decimal point determines the precision of your numbers.

DESIGNING REPORT FORMS

Once you have designed your form you may, if you wish, design the report form. After pulling down the menu for *Report,* or pressing *F5,* choose *Define* by either placing the cursor over the word and pressing *Enter,* by pressing the first letter of *Define* and then pressing *Enter,* or by placing the mouse arrow over *Define* and clicking twice. The *Report Setup* screen is divided into four portions labeled, from top to bottom: *Header, Body, Summary,* and *Footer.* To detail all the possibilities in this particular area would make this report too lengthy. Suffice it to say that you can size each section; include titles and/or graphics in the header; include similar information in the footer; place any field which you want included on your report in the body in any location you prefer; and use the summary portion to summarize, total, count entries, or whatever you choose. After you have set up your report you can than preview what it will look like on a printed page in miniature. I have used this option many times to determine that what I thought would look good looked absolutely terrible when all bunched together, necessitating a complete re-do of my report arrangement.

Now the hard work is done. From here on, operating the program is pure joy. The main operating program is, of course, *Filer.* When you call it up, or transfer to it from *Form Setup,* you are presented with a screen representation of your card with the cursor waiting for you at the first prompt. Simply type in your information and press *Tab* to move to the next field, or *Shift-Tab* to back up a field. To add a card press *Ctrl-A* and your completed card is automatically stored and a new screen appears. Each card is stored in the order completed unless you subsequently sort them into a different order. *Filer* remembers your last sort and presents the file to you in that order each time until told to sort into some other arrangement. At the lower right of the screen appear four buttons labeled *First, Next, Prev,* and *Last.* These buttons are used to move among the records in the file. If the button is not usable it is shaded. For example, if you are already at the first record in the file, the *First* button is shaded.

When you have several records established you can sort, find, create subsets, etc. In other words, you can manipulate the file in any way you choose. If, for example, I want to list all bills I must to pay, from a file entitled appropriately, *Debts,* I ask *Filer* to find all records in this file where the *Amount* due is equal to or

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greater than $.01. When the extraction has been done, *Filer* presents me with the first record in the file which meets that criteria. I then move to *Reports* and request that a copy of this subset be sent to my printer. What I get is a printed page listing all of my bills in alphabetical order, with the amount due for each, and at the bottom of the page, a total of the whole amount. (This can be a a very humbling experience!)

ADDRESS BOOK

"*Address Book* is among the most powerful prestructured databases in existence. It features preorganized forms, cross-referencing, mailing label and form letter printing capability, the ability to print its contents to a file, and powerful sort, search, and indexing capabilities. These features, combined with *Address Book*'s ties to the *Phone List* accessory, give the *Address Book* just about everything you need in a 'people' database."

Believe me, this program is excellent. When initiated, the user sees an address card with fields preset for *Title, First* (name), *Last* (name), *Address* (not labeled), *State* (not labeled), *Zip Code, Company* name, *Work* (telephone), *Home* (telephone), *Dates to Remember*, and *Notes*. The graphic depicts the card as similar to a loose leaf in an address notebook, complete with punched holes. The page itself is divided into three sections with the top half containing the first nine fields, through *Home* telephone. The bottom is divided in two with *Dates* to remember already set up as *Birthday* and *Anniversary*, and *Notes*, which can be used for anything. I like to list the children's names, or spouse's names in this field. The bottom right section of the page is titled *Member Of* and lists all the various groupings of which this particular address card is a part.

The left one-third of the screen has a window entitled *Index* and contains an alphabetical listing of the names entered in your address book, depending on how you are viewing them. As you enter addresses into your *Address Book* you may assign them to various lists. And you may assign a particular address to more than one list. For example, I have some names that are on a "Family" list, and others on a "Friend" list. Most, if not all, of these names are also on a "Christmas" list.

Address is also tied into the utility *Phone List*, which is accessible by pressing *F10* from anywhere within *DeskMate*. Any phone number entered in your address file is available in *Phone List* and, if properly set up, may be dialed from that utility. Suppose, in the middle of a program operation—even writing this article—I decide to call *Portable 100* magazine's editor. I press *F10*, choose *Phone List*, move down through the list until I find "Nugent, Mike," tell *Phone List* to dial the number there, and just like an automatic dialer, the number is dialed for me by the computer.

In many ways *Address* is similar to *Filer*, with one major exception: Where *Filer* maintains many different records, each accessible as you wish, *Address* maintains only one file, *PERSONAL .ADR*. However, because you can assign addresses to different "lists" and call up those individual lists, you get the effect of having multiple files. The major advantage of this arrangement is that all lists are part of the "All" list. Choosing that view gives you the entire list of addresses in your file.

Unless otherwise stated, all quotes contained in this and future articles are from the book, Getting the Most Out of DeskMate 3 *by Michael A. Banks, a "Brady" book, published by Simon & Schuster, Inc., 15 Columbus Circle, New York, NY 10023, Copyright 1989 by Michael A. Banks.*

COMPATIBILITY: Tandy 100, 102, 200 only.

TEXT . . . Plus!

Supercharge your lapwarmer's built-in TEXT *editor!*

by James Yi

The built-in *TEXT* editor on the Model 100/102 and Tandy 200 is perfectly adequate for light editing jobs. But what if you've gotten into more intensive editing? What if you've felt the urge to reach for function keys that, alas, just aren't there? Don't you wish they were? Well, *TEXT+* can fill that "functionality void" and make your wish come true! Here's a list of *TEXT+* features:

- Word Wrap Disable—Word wrapping at the ends of lines in *TEXT* is normally automatic, but *TEXT+* lets you toggle word wrap on and off.
- Overwrite—The Tandy notebooks are normally in insert mode, where characters you type are added to the text file and existing characters are pushed over to make room. Overwrite mode lets you type over existing characters, replacing them with the characters you type. *TEXT+* lets you toggle between insert and overwrite modes.
- Append Paste—Normally, text that you cut or copy into the paste buffer replaces text that was already there. With *TEXT+*, however, if you hold down the *SHIFT* key while cutting or copying, the text will be appended to what's already in the paste buffer. When *SHIFT* is not pressed, cut and copy work as normal, replacing what's in the paste buffer.
- Backward Text Search—A string can be searched from the current cursor location to the *beginning* of the file instead of end of the file.
- Search and Replace—*TEXT+* lets you find a string and replace it with another string. It can automatically replace every string it finds, or you can have it pause at each find to let you selectively replace them. If you want to search and replace only within a portion of text, you can specify a local search block by highlighting the block with the *F7* (*Sel*) key. Optional case sensitivity lets you search for exact matches only.
- Place Marking—You can put up to 9 markings and return to those markings with quick two-key strokes.
- Cursor Position Reporting—Lets you know where you are relative to the beginning of the file and shows the column and row position of the cursor.
- Block Deletion—Lets you select a block of text and delete it without affecting the paste buffer.
- Paste Buffer Dumping—When you get a *Memory full* message while trying to paste something, this feature lets you get around that.

GETTING STARTED

To get started, you need to run the *BASIC* loader program (Listing 1—Model 100/102, Listing 2—Tandy 200) to create the two .CO files, *TXPDAT.CO* and *TXPINS.CO*. For compatibility

```
1 'TEXT+ data file and installer loader
for 1ØØ/1Ø2.
2 '2/19/9Ø
3 'Copyright (c)199Ø by James Yi [73327,
1653]
4 'Read TEXTP.DOC
1Ø CLEAR99:GOSUB2Ø
15 F$="TXPINS.CO":F=Ø:GOSUB3Ø
16 A=Ø:GOSUB4Ø
19 END
2Ø PRINT"12 seconds..":FORN=6471ØTO64994
:P=P+2:IFP>LEN(D$)THENREADD$:P=1
24 D=(ASC(MID$(D$,P,1))-65)*16+ASC(MID$(
D$,P+1,1))-65:POKEN,D:C=C+D:NEXT:IFC=413
83THENRETURN
28 GOSUB45:PRINT"loader.  Can't continue
.":END
3Ø PRINT"End address for ";F$;:A=-1:INPU
T" (Press ENTER for just below HIMEM)";A
4Ø CALL6471Ø,F,A:F=F+1:E=PEEK(647Ø4):IFE
THENPRINT"Warning - ";:GOSUB45ELSEPRINT"
Loaded ";
44 CALL4514,,64659:PRINT".CO":RETURN
45 PRINT"Bad checksum on ";:BEEP:RETURN
5Ø DATA MGDADCMAPMDCMBPMOFCKHMPGOLONCLCC
MEPMCBJDPMFHMNDMPNCBMOPKMNDMPNOBNFAIMKBF
PNCDAIMCPDPMCKPEPFOFCKNAPKEEENOBAIOFBBMO
PKONEEEN
55 DATA OBNJAICCMCPMOLCKNCPKHMLFMKBFPNBJ
CCNCPKMNEGCBMNIJCAMENJBPMNEGCBMNLJPNMNIJ
CAOLMNFADECDCDNBMNDPPNDCJJPMMNGBPNJCDCMA
PMMJABAG
6Ø DATA AAMFOFMNGBPNOBHHEHHKNKFFPNCLEOOL
CKMCPMAJNJOLCDIAAPFHCDMBALHILBMCDPPNMJNF
FEMNHOPNPOCKNCHJPNNGCFFHAPAPOGMAFPMNHOPN
NGDALDNG
65 DATA GLBINBMJCKMEPMHOLHMKJBPNHOPOCJCD
```

Continued

Listing 1. TEXTP.100 *adds word wrap disable, overtype, append to paste buffer, "bookmarks," cursor tracking, and many more useful features to the Model 100/102's built-in* TEXT *program.*

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with other *.CO* programs you might be using, *TXPINS* can be created to run at any address you choose; specify the address of the last byte of *TXPINS*, plus one, when the loader asks you for the *END* address. Just pressing *ENTER* at this prompt will set the execution location for *TXPINS* to right below current *HIMEM*. If you are not sure of what value to specify as the *END* location, just press *ENTER* and it will run safely. Since *TXPDAT* doesn't actually run, it need not be relocated, and you need not specify an address for it. After those two *.CO* files have been created you can store away the loader.

Next, make a configuration file, *TXPCFG.DO* (Figure 1). This file contains default setups that will configure *TEXT+* every time you install it. As shown, it is set up so that all features will be installed. Later in the article, I'll explain how you can customize it. If you don't use the configuration file during installation, all features will be installed and defaults set up in a standard way.

Then run *TXPINS.CO* to install *TEXT+*. If you run it and it just gives you a beep or *?OM* error, you will need to change the computer's *HIMEM* setting. To do that, go into *BASIC*, type *LOADM "TXPINS"* and press *ENTER*. See what *Top:* value is displayed, and then set *HIMEM* to this value by typing *CLEAR 0,Top* (whatever value *Top* is).

The first time *TXPINS.CO* is run, if all is well, it will display progress messages for each function installed. *Size* indicates how many bytes a function takes up. When finished, it asks, *Clean up?*. Press *Y* to delete the files *TXPINS.CO, TXPDAT.CO,* and *TXPCFG.DO*. Press *N* if you don't want them deleted automatically.

After installation, the *TEXT* entry on the computer's main menu will change to *TEXT+* to indicate that *TEXT+* is installed.

IF YOU HAD TROUBLE

If all did not go well, there are 3 possible ways it could have gone wrong:

1. Not enough memory—The program needs about 2K of free memory to install all features.
2. File directory full—There are too many files in the file directory to hold *TEXT+*. Delete some files and try again.

```
CCMEPMMADODKMJABAFAAAJHONGIDMCKNPNCDLOMK
JEPNABMAPMAKLHMKKNPNDKMBPMJGACCDHOMKICPN
LHMCKNPN
7Ø DATA MDJBPNMNOMCAOFCKNAPKABAGAAAJEEEN
CKLCPLNEGNGLNKCCDPOLCKLAPLAICCLAPLDOKAOB
MNDJCCCBMOPKMDEACF
1ØØ DATAØ#o$3#k#d#i#n$SQ$oq$SQ#SkV#=!N&G
|#maX#=!P&G#<!B&BD#<$V&G8V&A5#7&CP@V#=$T
&G|r&C8!N&B<@~~#5~i$Z5!=&A~~#EIeJ-!<&B~X
~~#5i$
1Ø1 DATA Z5!X&A#G#=IeLP8^p,Øs#>#_#hLØ8!)
$F,|!IfXsDL#Qk#Y#;#M$Od#<Y$8#=$Id#<g&F.q
&B|$ngqs8#]#@8#a#<.!J#;8V&A3$Yi!;5D#).*#
)8$1$2
1Ø2 DATA #<$E&G8$1$286}R8Tzi#m5$d&Ai#i5S
&Bi$4-z&B#<$f&G8d&A#<!7&G8d&A#<$^&G8d&A.
S&B#<$f&G8^&B8!=|.G&B8$H$FE$e&BP|!IfXtD|
!V&GXt
1Ø3 DATA D|!X&GXtD|*&GXtD|,&GXtD|!R&GXtD
|!T&GXtD|$O&GXtD|A&GX$W!P5$c&BtDL4#E$O&G
#_#h|!IfXsD#E$T&G8!)$F#<!L$;.D&B#<o&G.D&
B#<!?&
1Ø4 DATA G.D&B#<#i&G.D&B#<!Udqk$YP#<+&BP
@4L-8&BP#>#>#>8^&BLo8@#;-!S&B$S!B3#<6&F8
$1$2#Y#IR#<#Q&G8$1$286}#E!N&Gd#E!P&G#=#m
a4ys$Y
```

Continued

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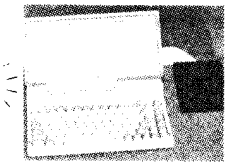

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3. *BASIC* programs need to be removed—Because *TEXT+* is a machine language program, it needs to reside at a fixed location. The installer will try to bury it in the lowest location possible in memory, so that changes to other files will not affect its memory location. Having *BASIC* programs present during installation prevents it from doing this, so that if you later edit one of these *BASIC* programs located below *TEXT+*, the location of *TEXT+* will be affected and something horrible will happen. (Tandy 200 LOMEM program users: Its location will also be affected when you change the LOMEM value. Be aware of programs that put things in LOMEM. Problems with LOMEM can be avoided if you install the programs that reside in LOMEM before installing any programs such as *TEXT+*, which is a pseudo-*BASIC* file occupied by machine language codes. If you already have *TEXT+* installed and want to install a LOMEM program, remove *TEXT+*, install the LOMEM program, then reinstall *TEXT+*.)

A PEEK INSIDE *TEXT+*

When Microsoft wrote the ROM for the Model 100 and Tandy 200, they provided software traps at various places in the ROM so that later on, users could insert their own code into it and expand it. *TEXT+* hooks itself onto one of those traps to make possible what it does.

Actually, there is no trap provided for the specific purpose of expanding the *TEXT* capability, but there happens to be a trap provided in a routine that *TEXT* calls every time you type a key. However, that routine is also called every time you type a key from anywhere else—from *BASIC*, *TELCOM*, the main menu, etc. So in order to avoid executing the *TEXT+* functions when you are not in *TEXT*, *TEXT+* first examines the stack to see if the routine was indeed called from *TEXT*, before acting upon a keystroke. This idea was first suggested to me by Paul Globman, whose *XOS* software and articles you have seen in *Portable 100*, and who used the same idea in *XOS* to expand the function keys at the Tandy 200 main menu.

And that is how *TEXT+* invokes itself to carry out its functions, by hooking into this trap and examining the stack.

❑

TEXT+ REMOVAL

Whenever you want to remove the program, run *TXPINS* again. (You do not need *TXPDAT* and *TXPCFG* for removal, but you will need them again for re-installation.) If while trying to remove it, you get a message something like *Vector $xxxx is used*, it means some other program has changed information at that memory location after *TEXT+* was installed. *TEXT+* cannot be removed unless that vector is restored with the value that the installer put in. If you get a message that says *Above files need to be removed*, it means other pseudo-*BASIC* files were installed after *TEXT+*. In that case, they must be removed first, before *TEXT+* can be removed safely.

CUSTOMIZING *TEXT+*

If you want all the features installed and are happy with the defaults as they are, then you needn't use configuration file *TXPCFG.DO* at all. However, by changing *TXPCFG* you can change the default state of the features, the keys that control the features, and even omit unneeded features to save memory. Here's how.

Specifications are contained in "configuration boxes," the rectangular brackets (*[ ]*) shown in Figure 1. There are two boxes for each function, one to indicate whether the function is to be installed or omitted, and another to specify its default parameter. In the *Install* box, put *Y* to install or *N* to omit. In the *Parameter* box, there may be one, two, or zero parameters to set. *[-]* indicates there are no parameters to set.

In function #4, for example, *[B]* indicates that <*ESC*>,<*B*> will be used to do a backward search. You could change it to, say, *[F]*, if you prefer to use <*ESC*>,<*F*> to initiate that action. In function #1, *[1,W]* indicates that <*ESC*>,<*W*> will be used to toggle word wrapping on/off, and number *1* indicates that the word wrapping will initially be enabled.

MISCELLANEOUS

Most functions are toggled with the escape sequence, that is, pressing <*ESC*> and then another key. The bottom line of the screen will then indicate with an up- or down-arrow whether it's been turned on or off.

The configuration file as shown is about 4K, but note that there are comments included within the configuration data. Once you've grown familiar with it, you can, if you wish, delete those comments to save space, reducing the file to about 1K. You may delete any line that does not begin with a number or the > symbol.

Continued on page 22.

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```
1Ø5 DATA #>R$Tin#Y#I7#;kx-`&B.#9ki$c+@Ø#
SqX#>#i#>#a#E$T&Gs,<#Z!)4|!)&D8!N&B#<$f&
G8V&A5#U&B@8W#;#=$Q&G#<Z&F8$1$2L8#k#O#>#
>#=!R&
1Ø6 DATA GV#=.&GVt#F#a#F#is#=!T&G#<!7&G8
V&A-$6&C|kkV#=A&G#<kk#=$O&G#E!5d#=$T&Glm
k8#a&B#Qj#>#Qj#>#=<&G8^&D8#G&E8$`&E#E)&G
#=>&G#
1Ø7 DATA E6&G#=8&G#E!V&G#>#=*&G#E!X&G#>#
=,&G#E2&G#_#h|!R&GXtD|.&GXtD#UE&G!B-!W&C
#E)&Gt#=<&G8^&DE#g&D8!O&D-v&D8#G&E8$`&E#
E!X&G#
1Ø8 DATA i#>wx5}&D$9#>$1#>P#E6&G#4N$9#>$
1#>NP#E8&G#4$U!B#^<-q&D#UB&G!B5r&DXp#UC&
G-p&D#UD&G$JDL.?&C#<N&G8!=&D#Y!J#ME&G#b#
E!V&G#
1Ø9 DATA i#>wx5!8&C$9#>$1#>P#E6&G#4<op5#
L&DX~~@P#E,&G$9#>$1#>#>#>#=.&G#E8&G#4VI.D
L.#8&D#E<&Glnk8#a&Bqn8u#j|!5dX#>D#E$Q&GV
qv#<$S
11Ø DATA &G8#]#@#Y#F#M$Od#E>&G#=$Id#>#>#
>P|IeXND<#>#7#8#Y$Z-$h&D#Y#G#8$N#>$M#>$R
#E$O&GV#<i&G88#@.t&Bi$[4P#<v&H$9#1k#O#<F
&G88#@
111 DATA L.!=|#EA&G$W!P38B&D`8B&D$)GVs$V
#MC&GB8Tz#MD&G#=A&G\i$44$Yiu#>-B&D$Yi#Y-
B&D$Y#>i$6-O&D#FBC8Tz!B4#E!T&GVX#=2&G$W!
P#R3@V
112 DATA #E.&G#4#=Ø&G<~~X#=4&G~~V#=!V&G8
#<&E#=!X&G8#<&E#=!T&G$Y#>!B3#X#>#>#>.#=&
E#E<&G#=)&G!J#M@&G#E.&G#_#h#E)&Gs#=6&G#E
!R&GV#
113 DATA E4&G#4#FP#5~8$Z&FAnE$)&E`8$4&F5
$X&E~\#We$?&E~LJ=#f&E#E!V&G#iV~wx38$4&F~
~~~-$K&El\L8$K&F.#Q&E#<W&G8!=&D#E<&G#Y#?
R8#J&F
114 DATA #<\&G8!=|#E2&G8?#T#<b&G8!=|#E@&
G#Ak8?#T8#=#]#U!=j#)E!L&E#E2&GPV#E@&G#Ak
P#4#_#h#E<&G8#a&B,w#Q$Z#>x-9&E#FV,#E!R&G
@8F$F<
115 DATA #E4&G#4@P#5~8$Z&FAnEe&E`8$4&FEc
&ED\~#Wej&E~LJ=P&E<#E2&G#4#F#5~!B-#E&FPX
$W!@#W-#;&F#<ok#4V.#D&F$=$F#F8#J&F8#D#]L
J=u&F4
116 DATA `$W8#X&F$X8#X&F8#9k\4`zzzz8#g&F
\`8#g&F\4QziuE$Ø&F1r1#KR4X#_#h#E.&G#Fs#Z
!)C#EØ&GsC#E6&Gt$X!B4#<@&G#O5!H&B#E)&G#>
#=)&G4
117 DATA i#[E$i&FA+=$g&F#Y141#[@$)Qn#b$V
!C#)#)#<!F&F$)#1k#4$Yrrzzp]!<&FQn<4$8$@$
Ø$@$8$@$Ø$@$X$@$Q$@$X$@$Q$@`$B$P$J!P$B!P
$J$P$B
118 DATA $P$B$P$B$P$Ju#m$@$H$J$Q$@#;$<$=
$J$Q$@#:$A$D$G$@#C$N#D#;$<$T$?#;$O$M$T#;
$<$B$<$D$Ik#d$I$N$O$<$G$G$D$I$B#I#Ik#m$@
$H$J$Q
119 DATA $@$?k$1$@$>$O$J$M#;#?#a#\#_#`#;
$C$<$N#;$=$@$@$I#;$H$J$?$D$A$D$@$?#V#;$M
$@$H$J$Q$<$G#;$D$N#;$P$I$N$<$A$@k#k$M$@$
N$N#;$
12Ø DATA <$I$T#;$F$@$T#;$O$J#;$@$S$D$O#I
rk#K$N#;$P$I$@$G$D$H$D$I$<$O$<$=$G$@k#^$
<$I$>$@$G$G$@$?k#^$G$@$<$I#;$P$K#Zkkkkk$
ckk#o#
121 DATA `$3#o#F#;#I#I#o$3#k#d#i#n#^#j#o
$3#k#_#\#o#^#j#;$H$D$N$N$D$I$Bk#o$3#k#^#
a#b#_#j#_$D$M$@$>$O$J$M$T#;$A$P$G$Ckkkkk
kkkkkk
122 DATA kkkkkkkkkkkkkkkkkkkkkkkkkkkkk#
h$J$?$P$G$@#;k#;$N$F$D$K$K$@$?k#;$<$O#;k
#n$D$U$@#Uk#;#k$<$?$N#Uk#o$J$O$<$G#;$N$D
$U$@#U
```

Continued

1. Word wrap: <ESC>,<?>
>Install: [Y]
>Parameters: [1,W] — 0=disable, 1=enable

2. Character overwrite: <ESC>,<?>
While in overwrite mode, pressing <SHIFT> with <SPACEBAR> lets you insert a space.
>Install: [Y]
>Parameters: [0,O] — 0=Insert. 1=Overwrite

3. Paste buffer append: <ESC>,<?>
Holding down <SHIFT> when you press <F5>(Copy) or <F6>(Cut) temporarily reverses the default setting. So if the default is "normal", pressing <SHIFT>+<F5> appends selected text to the paste buffer.
>Install: [Y]
>Parameters: [0,A] — 0=Normal, 1=Append

4. Backward Search: <ESC>,<?>
>Install: [Y]
>Parameters: [B]

5. Search & Replace: <ESC>,<?>
Can be done on the whole file, or on a selected portion. Use <F7> to select the portion that you want to do "local" search & replace on. If no text is selected, it will be done on all text after the cursor. If you want to abort it when it asks for "Pause?" and "Case?", press <CTRL>+<C>. If you want to abort it when it's in the process of doing automatic search and replace without pause, press <SHIFT>+<BREAK>.
>Install: [Y]
>Parameters: [S]

6. Unload paste buffer: <SHIFT>+<PASTE>
Pressing <SHIFT>+<PASTE> empties the paste buffer content to the file, for the situation in which there isn't enough memory to paste as normally. You could use this function another way, to insert text at the beginning of the current paste buffer content; move cursor to end of text to insert, do <SHIFT> +<PASTE>, extend highlighting, and cut.
>Install: [Y]
>Parameters: [-]

7. Show cursor position: <ESC>,<?>
Turn on the LABEL by pressing <LABEL> and you'll see the cursor's coordinate on the screen, and the offset from begin of the file of the text it's pointing to. Cursor movement becomes sluggish when it's being shown, so you may want to turn LABEL off most of the time and turn it on only when neccessary.
>Install: [Y]
>Parameters: [1,C] — 1=on, 0=off

8. Marking: <ESC>, [<TAB>], <0 to 9>
To place a marker at the cursor, press <ESC>,<TAB>, and a number from <0> to <9>. <0> is special in that it redistributes the markers 1-9 at evenly spaced intervals throughout the file. To get back to the location where you placed the marker, press <ESC> and then <0> to <9>. <0> is special; it takes you to the previous cursor location just before last event, like Pasting, Finding, CTRL-Z (Down Arrow), and exit, reenter and immediately doing <ESC>,<0> takes you to the location just before the previous exit.
>Install: [Y]
>Parameters: [1,T] — Cursor tracking: 1=on/0=off

<ESC>,<T> turns cursor tracking on/off. You may want to turn it off if the cursor movement feels sluggish. Tracking allows automatic adjusting of markers as you edit the file. If it's off, markers shift and lose their position as you insert and delete text preceding them.

9. Block delete. To delete a chunk of text, select it using <F7>, and press <SHIFT>+<DEL>. It's like cut operation using <F6>, except that the text cut is not stored in the paste buffer. Handy if you want to delete a large block of text but don't want to affect the data holding in the paste buffer.
>Install: [Y]
>Parameters: [-]

Figure 1. TXPCFG.DO *lets you customize* TEXT+ *to your personal tastes. Change default states, activation keys, and even omit unwanted features to save memory.*

```
123 DATA #;kk!9
200 DATA1#o$3#k#_#\#o$SQ<rkk.!NQ#<jj$ZP#
E!8fV#6#6XlH$)!Js#<ØR#a$R#>$K+#F#P#6#6Xl
[$)s+#<-QD8jj8jj#UlR!B+#M+g.jj8#U#)#YuR.
Y$88jj
201 DATA .jj#MJa`8W$@8jj\E!WQ#b#U!=j#j#U
Kai#6$S5#7Ri$Z5DWi#;EgQ-dQ.jj8P$>!B3i#53
i$Z3.jj#<!LR#>$YQ$Z!SEjQ!Y/*Q$Sit5dQi{5Y
Q8jj.p
202 DATA $;i#65$[W8Tz#<#]R8jj8jj8jj8jj8j
j8jj8jj8jj.EQ$YYl$RY!4#<+R$RP8!6$@#E#TaN
8!I$@L.$W#]LP#U#Ta8$a$D.#D$=8$WR=$MR8#E$
=.!:$=
203 DATA #=OaP8$\$D.#D$=P#Yl8#c$ELJ#Z;P8
#Y$ELJ4P#E$Bb#_#hLs4ØPtP#_#h#E$=f#>s#_#h
L<8F$FV#F#=$=f#>,.$E$>q$bu$fx$i#Ø!2#4!5#
)kjjkk
204 DATA kjjkki$2+N#<MR4|MR#<#<d#5!Y3$R8
d$E.jjkjjkki#j+N#<#FS4`8$j$=8!6$E8d$E|$o
$;@#U#FS#);$Yi#53ix-yS#>$Y#Fiu3\\$R#>.#a
$<#U#F
205 DATA S!<#)$S=WR8$e$;8d$E#F.#E$=kjjlk
i#\+N#<$BS4#U$BS!D#)$S;#<#U$?iz5#eSi#Ø+#
<#i$?N8Y$=8$^$>8#a#<|!@dX#Y#5!Y#>-$5S#FD
.!W$?k
206 DATA jjkki#j+L8!6$@8d$EP#<B$@|#)b@8n
$A<#>#O#P#R5$f$@8.$@<@8!6S=$j$@<Ø$;$D8jj
.$_$@@P#E$BbJL5!1$7#6P@#58Tz#j8Sz!T~#>5!
CS!B.L
207 DATA 5$E$7$4#k.!7Si#n+L8!6$@8d$EV#EM
a$W!P#E$=fV/!F$?#=Wg#=[gV#=Yg!J$B$J#=Sg#
=Ug#<B$@|#)b@8n$A<#>$Y!B5#YU8!MU#=]g#<TU
|+g@8n
208 DATA $A<#>8!MU#=_g#<+U#UoV8#jU#MoV#<
4U#UnV8#jU#MnV#E[g#F#UnV#j#>V#EYg#FJE#3U
#U!=j#JQ$\5#3U#<#)b@#5wx-!VU8Tz#b8Sz!S~#
>5#fTL
209 DATA !B-#OT#=[g#6#ESg#>#=Sg#UoV!B5!8
T@8!AUL#=Ma#=Oa#E[g8jj8!6$@#U#Ta#Mcg#<cU
#Yv8#jU#E[g5#KT#E_gPV#E]gJE!UT#]#fs#_#h#
E[g#4$
210 DATA T!B/jj.5TV#]#fs#_#h#E[g#48cT-$_
U|UgX#>D#E[g|+g,$T#\!B/$D#O#UoV!B5#JTP!J
$B$J#-Ma#E[g#Ucg8$a$DL.#JTP#E$-fP#>!J!YE
Z"ov$S
211 DATA !L-hT#=$=fVL,Ps#_#hnL.Q$F8$oU#E
[gP8#E$=#<JU8!I$@#ESg8?#T#<<U8!=|#EUg8?#
T.#D$=L#EMa$W!P5#6U8!AU#EOa.#9U1#i`8!I$@
\R#b#Y
212 DATA sR86}in5#XU#jix$S5$[U$Ti#;#Y#i5
$[U$T8Tzi#i5$[Ui$4-$6URA#i4L8$oU#<!L$;8!
I$@86}.#6U#UoV!B-!AU$B$J#=Ma#E[g.$\$D8Y$
=#EOa8
213 DATA #E$=.$j$=@8.$@,Vs#F4#b$Y.$3T#k$
<$P$N$@#Zkjj#^$<$N$@#Zkjjt#m$@$K$G$<$>$@
$?#U#;kjj#a$J$P$I$?#U#;kjj#m$@$K$G$<$>$@
$H$@$I
214 DATA $O#Ukjj#m$@$K$G$<$>$@#Zkjjkv#U!
=j#)=1$@8$j$=8#a#<8d$E#=OaP#_#h#=Ma#E!@d
!J!Y#>5#=V#F|li@PsN#j#b$Y}A#55#ZV#>~w-#L
Vo!L5$
215 DATA 4V#=!@d#F#o$8s$T,`8Q$F,#><8$D#O
```

continued

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Circle 17 on reader service card.

```
.#4V\\8#E$F.jji#^+L#<6V$Y`8jj\#<#Xa!A3.!
C#]#U6V#<#Xa!A3#O8d$EP#E#TaP#<!QV8!N$@LP
$G$B8?
216 DATA #T#<!WV8!=|LP$B8?#T#<.V8!=|LN8j
j8?#T#<#Xa#PL.$W#]$3#U#;kjjt$4#U#;kjjt#k
#U#;kjjklit-tWL86}8#@WC5QV@8d$E8#=W<D48#
)Wyu#b
217 DATA |jjs~=ZV#]#f$B$J#Yt|!6WtD~~~~~#
X-hV48#@WCLXV#E$Bb#4CV#E$=fJCV.jj#E$=f.j
ji#KCi#U#ZCA#K$)rr$^$)!J$2#<!1W#4V!P4#UB
W#);8#
218 DATA )WP#E=W#_#hLs5$OW#=3W#E8W#_#h#Y
u|!1WXsE$HW5$HWt@V#E3W#4<DV#Cp#X-$7W8#)W
#==W|8W.GV#<$4$;P#E8W#=!1W4i#o+N#<BW4kjj
jjkjjj
219 DATA jkjjjjkjjjjkjjjjkjjjjkjjjjkjjjj
kjjjjkjjjjkjjkkkjjkkkjjkkkjjlk#EMa$W!P5#
3$<8!F$?PV#]#fs#_#h!J$B$J#=MaLP8!1R.$6R#
jl#Ulr
22Ø DATA !1Rkk$WRkk$ARkk#]Rkk$hRkk$7Rkk$
6Rkk~#CR2R!>Q)R#FROReQWRWQ#Ø$#IR#HS#2R#P
S#LR$DS#OR,S!XQpV#RR$<V!AQ$QV#UR7V5Q#WW!
LQ$OW+
221 DATA Q$_W#)R$[W#XR$fWLQDW#8k#3km2R^$
Z)R^$ZnHR$7R3RlkMRkk#dk#_knOR^$ZWR!Ø$;#Ø
S!Ø$;mPRlk#FSkk#Wk#Rkm#HS^$Z#PS^$Zm#IS1k
$BSkk$
222 DATA 3k$3kl$DS^$Zm!1S$WR$ESkk#_mjll,
S^$Zn!PT!1R$_T$AR-Skk$7k$7klpV1$@1$)V$6R
$Fk$Økm$<V^$Z$QV^$Zo6Vkk$FV#]R!DV$hR$=V1
kx12kq
223 DATA 7V^$Z#WW^$Z$OW^$Z$_W^$Z$[W$4$;$
fW^$Zo#8W$AR#>W$hR$gWlkBWkk#;k#;klDW#3$<
m_W!1RbW$6Rkk#ilM
```

End of listing.

```
1 'TEXT+ data file and installer loader
for 2ØØ.
2 '2/17/9Ø
3 'Copyright (c)199Ø by James Yi [73327,
1653]
4 'Read TEXTP.DOC
1Ø CLEAR99:GOSUB2Ø
15 F$="TXPINS.CO":F=Ø:GOSUB3Ø
16 A=Ø:GOSUB4Ø
19 END
2Ø PRINT"11 seconds..":FORN=6358ØTO63822
:P=P+2:IFP>LEN(D$)THENREADD$:P=1
24 D=(ASC(MID$(D$,P,1))-65)*16+ASC(MID$(
D$,P+1,1))-65:POKEN,D:C=C+D:NEXT:IFC=349
96THENRETURN
28 GOSUB45:PRINT"loader.  Can't continue
.":END
3Ø PRINT"End address for ";F$;:A=-1:INPU
T" (Press ENTER for just below HIMEM)";A
4Ø CALL6358Ø,F,A:F=F+1:E=PEEK(63574):IFE
THENPRINT"Warning - ";:GOSUB45ELSEPRINT"
Loaded ";
44 CALL4556,,633Ø2:PRINT".CO":RETURN
45 PRINT"Bad checksum on ";:BEEP:RETURN
5Ø DATA MGDADCFGPIDCFHPIOFCKGHOPOLONCLCC
FKPICBEGPHFHMNNCPICBPLPEMNNCPIOBNFAIMKKL
PICDAIMCIJPICKLEOOOFCKPNPEEEENOBAIOFBBPL
PEONEEEN
55 DATA OBNJAICCFIPIOLCKPPPEHMLFMKKLPIBJ
CCPPPEMNGCCMMNKGCLMEMOCKMNGCCMMNGGDAMNKG
CLOLMNKBEBCDCDNBMNNFPIDCEMPHMNPHPIJCDCFG
PIMJABAG
6Ø DATA AAMFOFMNPHPIOBHHEHHKNKOLPICLEOOL
```

Continued

Listing 2. TEXTP.200 *adds word wrap disable, overtype, append to paste buffer, "bookmarks," cursor tracking, and many more useful features to the Tandy 200's built-in* TEXT *program.*

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☆ **Inside the Model 100** by Carl Oppedahl "...an excellent Guide" —New York Times. A thorough guide to the Tandy Model 100. Learn about A.L. programming; disassembled ROM routines; keyboard scanning; UART, RS 232C, and modem; Clock/calendar chip; Interrupt handling; 8085 instruction set-$24.95.

☆ **User Guide and Applications for the TRS-80 Model 100 Portable Computer** by Steven Schwartz. 14 ready-to-run programs for business: statistics, graphics, sound, and more. With cassette tape-$44.95. Buy them separately— the book is only $21.95; the cassette tape is only $27.00.

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Circle 30 on reader service card.

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Circle 127 on readers service card.


```
CKFIPIAJNJOLCDIAAPFHCDMBALHILBMCNFPIMJNF
FEMNBEPJPOCKNCAPPJNGCFFHAPAPOGMAFPMNBEPJ
NGDALDNG
65 DATA GLBINBMJCKFKPIHOLHMKCHPJHOPOCJCD
CCFKPIMADODKMJABAFAAAJHONGIDMCEDPJCDLOMK
CKPJABFGPIAKLHMKEDPJDKFHPIJGACCDHOMKBIPJ
LHMCEDPJ
7Ø DATA MDCHPJ
1ØØ DATAØ#o$3#k#d#i#n$SQ$iq$SQ#SkV#=!H&G
|#OZX#=!J&G#<!<&BD#<$P&G8V&A5#1&CP@V#=$N
&G|1&C8!H&B<@~~#5~i$Z5!=&A~~#Ev`J-!6&B~X
~~#5i$
1Ø1 DATA Z5!X&A#G#=v`LP8#9q,Øs#>#_#hLØ8E
$],|$<aXsDL#Qk#Y#;#M$?]#<!8$L#-$9]#<a&F.
k&B|#abqs8!B#M8$=#G.7#F8V&A3.#G#F8!9$B#<
$?&G8!
1Ø2 DATA 9$B8b}R8"o{i#m5$d&Ai#i5M&Bi$4-t
&B#<$`&G8d&A#<!1&G8d&A#<$X&G8d&A.M&B#<$`
&G8X&B87|.A&B8!C$]E$_&BP|$<aXtD|!P&GXtD|
!R&GXt
1Ø3 DATA D|!T&GXtD|!V&GXtD|!L&GXtD|!N&GX
tD|$I&GXtD|;&GX$W!P5$]&BtDL4#E$I&G#_#h|$
<aXsD#E$N&G8E$]#<!G$D.>&B#<i&F.>&B#<!9&G
.>&B#<
1Ø4 DATA #c&G.>&B#<!P]qk$YP#<!U&BP@4L-2&
BP#>#>#>8X&BLo8]#F-!M&B$S!B3#<Ø&F8!9$B#Y
#IR#<#K&G8!9$B8b}#E!H&Gd#E!J&G#=#OZ4ys$Y
#>R$Ti
1Ø5 DATA n#Y#I7#;kx-Z&B.#9ki$c+@Ø#SqX#>#
i#>#a#E$N&Gs,<#Z!)4|!4&D8!H&B#<$`&G8V&A5
#O&B@8t#G#=$K&G#<T&F8!9$BL8!<#\#>#>#=!L&
GV#=!X
1Ø6 DATA &GVt#F#a#F#is#=!N&G#<!1&G8V&A-$
Ø&C|kkV#=;&G#<kk#=$I&G#E!Ø]#=$N&Glmk8#[&
B#Qj#>#Qj#>#=6&G8X&D8#A&E8$Z&E#E4&G#=8&G
#EØ&G#
1Ø7 DATA =2&G#E!P&G#>#=!T&G#E!R&G#>#-!V&
G#E,&G#_#h|!L&GXtD|!X&GXtD#U?&G!B-!Q&C#E
4&Gt#=6&G8X&DE#a&D8!I&D-p&D8#A&E8$Z&E#E!
R&G#i#
1Ø8 DATA >wx5w&D$9#>$1#>P#EØ&G#4N$9#>$1#
>NP#E2&G#4$U!B#^<-k&D#U<&G!B51&DXp#U=&G-
j&C#U>&G$JDL.9&C#<H&G8!7&D#Y!J#M?&G#b#E!
P&G#i#
1Ø9 DATA >wx5!2&C$9#>$1#>P#EØ&G#4<op5#F&
DX~~@P#E!V&G$9#>$1#>#>#>#=!V&G#E2&G#4VLD
L.#2&D#E6&Glnk8#[&Bqn8,$8|!Ø]X#>D#E$K&GV
qv#<$M
11Ø DATA &G8!B#M#Y#F#M$?]#E8&G#=$9]#>#>#
>P|v`XND<#>#7#8#Y$Z-$b&D#Y#G#8$N#>$M#>$R
#E$I&GV#<c&G8#M#N.n&Bi$[4P#<p&H$9#1k#O#<
@&G8#M
111 DATA #NL.7|#E;&C$W!P38<&D`8<&D$)C#1t
$V#M=&GB8"o{#M>&G#=;&G\i$44$Yiu#>-<&D$Yi
#Y-<&D$Y#>i$6-I&D#FBC8"o{!B4#E!N&GVX#=,&
G$W!P#
112 DATA R3@V#E!X&G#4#=*&G<~~X#=.&G~~V#=
!P&G8#6&E#=!R&G8#6&E#=!N&G$Y#>!B3#X#>#>#
>.#7&E#E6&G#=4&G!J#M)&G#E!X&G#_#h#E4&Gs#
=Ø&G#E
113 DATA !L&GV#E.&G#4#FP#5~8$T&FAnE$4&E`
8#n&F5$R&E~\#We$9&E~LJ=#`&E#E!P&G#iV~wx3
8#n&F~~~~-$E&El\L8$E&F.#K&E#<Q&G8!7&D#E6
&G#Y#?
114 DATA R8#D&F#<V&G87|#E,&G8v#b#<\&G87|
#E)&G#Ak8v#b8#Y#j#U#1h#)E!F&E#E,&GPV#E)&
G#AkP#4#_#h#E6&G8#[&B,w#Q$Z#>x-3&E#FV,#E
!L&G@8
115 DATA #1$^<#E.&G#4@P#5~8$T&FAnE_&E`8#
n&FE]&ED\~#Wed&E~LJ=J&E<#E,&G#4#F#5~!B-#
?&FPX$W!@#W-#5&F#<ok#4V.#>&F$=$F#F8#D&F8
```

Continued.

```
#`#jLJ
116 DATA =o&F4`$W8#R&F$X8#R&F8#9k\4`zzzz
8#a&F\`8#a&F\4QziuE#j&F1r1#KR4X#_#h#E!X&
G#Fs#Z!)C#E*&GsC#E@&Gt$X!B4#<)&G#O5!B&B#
E4&G#>
117 DATA #=4&G4i#[E$c&FA+=$a&F#Yl41#[@$)
Qn#b$V!C#)#)#<!@&F$)#1k#4$Yrrzzp]!6&FQn<
4$8$@$Ø$@$8$@$Ø$@$X$@$Q$@$X$@$Q$@`$B$P$J
!P$B!P
118 DATA $J$P$B$P$B$P$B$P$Ju#m$@$H$J$Q$@
#;$<$=$J$Q$@#;$A$D$G$@#C$N#D#;$<$I$?#;$O
$M$T#;$<$B$<$D$Ik#d$I$N$O$<$G$G$D$I$B#I#
Ik#m$@
119 DATA $H$J$Q$@$?k$1$@$>$O$J$M#;#?#a#P
#K#]#;$C$<$N#;$=$@$@$I#;$H$J$?$D$A$D$@$?
#V#;$M$@$H$J$Q$<$G#;$D$N#;$P$I$N$<$A$@k#
k$M$@$
12Ø DATA N$N#;$<$I$T#;$F$@$T#;$O$J#;$@$S
$D$O#Irk#K$N#;$P$I$@$G$D$H$D$I$<$O$<$=$G
$@k#^$<$I$>$@$G$G$@$?k#^$G$@$<$I#;$P$K#Z
kkkkk$
121 DATA ckk#o#`$3#o#F#;#I#I#o$3#k#d#i#n
#^#j#o$3#k#_#\#o#^#j#;$H$D$N$N$D$I$Bk#o$
3#k#^#a#b#_#j#_$D$M$@$>$O$J$M$T#;$A$P$G$
Gkkkkk
122 DATA kkkkkkkkkkkkkkkkkkkkkkkkkkkkkk
kkkkk#h$J$?$P$G$@#;k#;$N$F$D$K$K$@$?k#;$
<$O#;k#n$D$U$@#Uk#;#k$<$?$N#Uk#o$J$O$<$G
#;$N$D
123 DATA $U$@#U#;kk$R
2ØØ DATA1#o$3#k#_#\#o$SQ<rkk.!NQ#<jj$ZP#
E#kaV#6#6X1!1$N!Js#<ØR#a$R#>$K+#F#P#6#6X
1!D$Ns+#<-QD8jj8jj#U1R!B+#M!Kb.jj8#E#E#Y
uR.!8$
2Ø1 DATA L8jj.jj#M5Z`8?$T8jj\E!WQ#b#U#1h
#j#U6Zi#6$S5#7Ri$Z5DWi#;EgQ-dQ.jj81$R!B3
i#53i$Z3.jj#<!LR#>$YQ$Z!SEjQ!Y/*Q$Sit5dQ
i{5YQ8
2Ø2 DATA jj.!Y$Ni#65$[W8"o{#<#]R8jj8jj8j
j8jj8jj8jj8jj8jj.EQ$YY1$RY!4#<+R$RP8$_$T
#EqZN8!2$TL.!6#jLP#UqZ8#k$[.u$Q8$WR=$MR8
v$Q.$\
2Ø3 DATA $Q#=)ZP8#f$[.u$QP#Y18$^$\LJ#Z;P
8$T$\LJ4P#E#m[#_#hLs4ØPtP#_#h#E#Øa#>s#_#
hL<8#1$^V#F#=#Øa#>,.#f$Rq$bu$fx$i#Ø!2#4!
5#)kjj
2Ø4 DATA kkkjjkki$2+N#<MR4|MR#<w]#5!Y3$R
8#O$].jjkjjkki#j+N#<#FS4`8$K$Q8A$\8#O$]|
$P$O@#U#FS#);$Yi#53ix-yS#>$Y#Fiu3\\$R#>.
#B$P#U
2Ø5 DATA #FS!<#)$S=WR8$F$O8#O$]#F.v$Qkjj
1ki#\+N#<$BS4#U$BS!D#)$S;#<#6$Siz5#eSi#Ø
+#<#J$SN8)$Q8$?$R8$=#G|!;]X#Y#5!Y#>-$5S#
FD.!5$
```

Continued.

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Circle 134 on reader service card.

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TMN Assembler

from Tri-Mike Network East

This assembler requires less than 3K RAM and is relocatable. It assembles source code from any file or device; accepts data in hex, decimal, or ASCII; creates a ready-to-run *.CO* file directly on the Menu or an optional trial assembly. Six built-in macros make programming even easier. Output all or any portion of the assembled listing to screen or printer, with optional user-inserted pauses. **Manual includes extensive RAM and ROM maps!** (Model 100/102, 200, NEC 8201/8300) Cassette version only—**$39.95**

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Circle 35 on reader service card.

Continued from pg 19.

Note to *Ultimate ROM II* users: *TEXT+* is not compatible with *UR-2*. You will have problems using *TEXT+* and *UR-2* together.

Editor's note: For those who prefer not to type in the listings, they're available on CompuServe's Model 100 Forum (GO M100SIG), on our Portable 100 BBS *(see our masthead for number and* TELCOM *stats), and on* P100-To-Go *disk.* ❑

```
206 DATA Skjjkki#]+L8$_$T8#0$]P#<7$T|u[@
8V$T<#>#0#P#R5$0$T8!R$T<@8!6S=$S$T<@$;$D
8jj.$H$T@P#E#m[JL5!)$K#6P@#58"o{#j8~{!T~
#>5!CS
207 DATA !B,L5$N$K$4#k.!7Si#n+L8$_$T8#0$
]V#E8Z$W!P#E#0aV/$d$S#=Gb#=KbV#=Ib!J$B$J
#=Cb#=Eb#<7$T|u[@8V$T<#>$Y!B5#YU8!MU#=Mb
#<TU|!
208 DATA Kb@8V$T<#>8!MU#=Ob#<+U#UoV8#jU#
MoV#<4U#UnV8#jU#MnV#EKb#F#UnV#j#>V#EIb#F
JE#3U#U#1h#JQ$\5#3U#<u[@#5wx-!VU8"o{#b8~
{!S-#>
209 DATA 5#fTL!B-#OT#=Kb#6#ECb#>#=Cb#UoV
!B5!8T@8!AUL#=8Z#=)Z#EKb8jj8$_$T#UqZ#M#^
a#<cU#Yv8#jU#EKb5#KT#EObPV#EMbJE!UT#]#fs
#_#h#E
210 DATA Kb#4$T!B/jj.5TV#]#fs#_#h#EKb#48
```

Continued.

TEXT ENHANCEMENT

```
cT-$_U|EbX#>D#EKb|!Kb,$T#\!B/!U#\#UoV!B5
#JTP!J$B$J#=8Z#EKb#U#^a8#k$[L.#JTP#E#0aP
#>!J!Y
211 DATA Eq#1v$S!L-hT#=#0aVL,Ps#_#hnL.#<
$^8$oU#EKbP8v$Q#<JU8!2$T#ECb8v#b#<<U87|#
EEb8v#b.u$QL#E8Z$W!P5#6U8!AU#E)Z.#9U1#i`
8!2$T\
212 DATA R#b#YsR8b}in5#XU#jix$S5$[U$Ti#;
#Y#i5$[U$T8"o{i#i5$[Ui$4-$6URA#i4L8$oU#<
$m$08!2$T8b}.#6U#UoV!B-!AU$B$J#=8Z#EKb.#
f$[8)$
213 DATA Q#E)Z8v$Q.$K$Q@8!R$T,Vs#F4#b$Y.
$3T#k$<$P$N$@#Zkjj#^$<$N$@#Zkjjt#m$@$K$G
$<$>$@$?#U#;kjj#a$J$P$I$?#U#;kjj#m$@$K$G
$<$>$@
214 DATA $H$@$I$O#Ukjj#m$@$K$G$<$>$@#Zkj
jkv#U#1h#)=J$S8$K$Q8$=#G8#O$]#=)ZP#_#h#=
8Z#E!;]!J!Y#>5#=V#F|#Ke@PsN#j#b$Y}A#55#Z
V#>~w-
215 DATA #LVo!L5$4V#=!;]#F#o$8s$T,`8#<$^
,#><8!U#\.#4V\\8$@$].jji#^+L#<6V$Y`8jj\#
<uZ!A3.2#j#U6V#<uZ!A3#O8#O$]P#EqZP#<!QV8
!7$TLP
216 DATA $G$B8v#b#<!WV87|LP$B8v#b#<.V87|
LN8jj8v#b#<uZ#PL.!6#j$3#U#;kjjt$4#U#;kjj
t#k#U#;kjjk1it-tWL8b}8#@WC5QV@8#O$]8#-W<
D48#)W
217 DATA yu#b|jjs~=ZV#]#f$B$J#Yt|!6WtD~~
~~~#X-hV48#@WCLXV#E#m[#4CV#E#0aJCV.jj#E#
0a.jji#KCi#U#ZCA#K$)rr$^$)!J$2#<!1W#4V!P
4#UBW#
218 DATA );8#)WP#E=W#_#hLs5$OW#=3W#E8W#_
#h#Yu|!1WXsE$HW5$HWt@V#E3W#4<DV#Cp#X-$7W
8#)W#==W|8W.GV#<}$OP#E8W#=!1W4i#o+N#<BW4
kjjjjk
219 DATA jjjjkjjjjkjjjjkjjjjkjjjjkjjjjkj
jjjkjjjjkjjjjkjjkkkjjkkkjjkkkjjlk#E8Z$W!
P5d$O8$d$SPV#]#fs#_#h!J$B$J#=8ZLP8!1R.$6
R#j1#U
220 DATA lr!1Rkk$WRkk$ARkk#]Rkk$hRkk$7Rk
k$6Rkk~#CR2R!>Q)R#FROReQWRWQ#0S#IR#HS#2R
#PS#LR$DS#OR,S!XQpV#RR$<V!AQ$QV#UR7V5Q#W
W!LQ$O
221 DATA W+Q$_W#)R$[W#XR$fWLQDW#8k#3km2R
!C!7)R!C!7nHR$7R3R1kMRkk#dk#_knOR!C!7WR$
Q$O#0S$Q$OmPR1k#FSkk#Wk#Rkm#HS!C!7#PS!C!
7m#IS1
222 DATA k$BSkk$3k$3k1$DS!C!7m!1S$WR$ESk
k#_mj11,S!C!7n!PT!1R$_T$AR-Skk$7k$7k1pVJ
$S1$)V$6R$Fk$0km$<V!C!7$QV!C!7o6Vkk$FV#]
R!DV$h
223 DATA R$=V1kx12kq7V!C!7#WW!C!7$OW!C!7
$_W!C!7$[W}$O$fW!C!7o#8W$AR#>W$hR$gW1kBW
kk#;k#;k1DWd$Om_W!1RbW$6Rkk#i1$j
```

End of listing.

CRDFIL-PC

CRDFIL is now available in a version which runs in a PC or PC-compatible computer, which is fully compatible with datafiles created by or used in a Model 100/102. Additionally, files created with the PC version may be transferred to, and used by, the Model 100/102 versions.

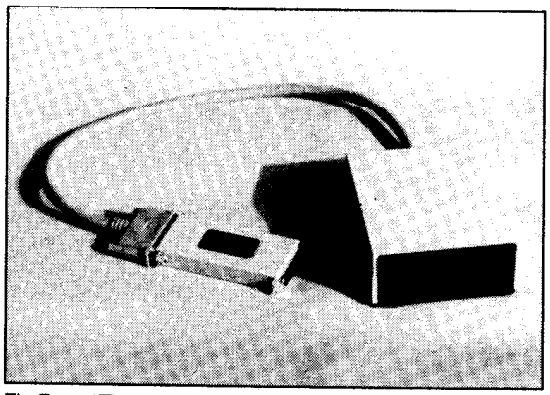
Virtually all of the Model 100 features have been implemented in the PC version, with the addition of enhancements available within the PC environment itself. These include faster sorting, faster card access and sicplay, Help messages and instructions on-screen, plus some options not available in the Model 100/102 versions due to lack of screen display space.

The PC version was designed primarily with PC laptops in mind, but can also be used in a standard desktop computer as well.

CRDFIL-PC is available on 3.5-inch of 5.25-inch disks, and may be used directly from the disk or placed in its own subdirectory on a hard disk system. The program is an *.EXE* program, which runs directly in the PC by typing *CRDFIL* at the DOS prompt. It can also be executed by many popular menu programs. An extensive menu system within *CRDFIL* guides you, step by step, through the program. Most options are similar to (and based upon) those found in the Model 100 version.

CRDFIL-PC is available on disk for $24.95, postpaid, and includes helpful instructions in a disk-based manual. It assumes you are already familiar with the Model 100 version. There will be a $5.00 credit to previous purchasers of the *CRDFILROM*, and it will be offered as an added option to future Model 100 version buyers.

For more information, contact T.A.F.T., Post Office Box 60925, Reno NV 89506. *Or circle #60 on your Reader Service Card.*tery).



The Export "T" *attaches directly to the printer port on any computer. An auxiliary printer connector is provided on the adapter.*

Export "T" External Hard Drives

Systems Peripherals Consultants has begun shipping the new *Export "T" Series* of external hard drives for both laptop and desktop computers. Since it utilizes the parallel (printer) port, the Export can be used universally as a primary or secondary (backup) high speed storage device, as well as a data transport device between different computers. The current low-profile lightweight units consist of 3.5-inch drives ranging from 20 to 207 MB, with access speeds from 15 to 28 ms.

A "T" connector allows for simultaneous hard disk/printer operation. A device driver is supplied which will function with removable cartridge drives, Bernoulli boxes, CD-ROM's, and magneto-optical drives. Computers supported include any PC/XT/AT, 80386, Micro Channel, and, of course, laptops.

Drives are shipped with an AC power supply. A battery option is available or customer-supplied 12-volt DC may be used.

Prices start at $595.00 for the 20MB drive. Dealer inquiries welcome. For more information, contact Systems Peripherals Consultants, 7950 Silverton Ave., Suite 107, San Diego, CA 92126 (619)693-8611. *Or circle #61 on your Reader Service Card.*

PC-Kwik Products from Multisoft

PC-Kwik Power Pak is a set of interconnected programs that enhance the performance and convenience of PCs. The combination of *Power Pak*'s disk cache, print spooler, RAM disk, and screen and keyboard accelerators provides great performance improvement. Once installed, your keyboard and screen are more responsive, the time spent waiting on printers is reduced, and all disk activity is dramatically faster. *Power Pak* runs under DOS version 2.0 or later. It operates behind the scenes while you work, speeding up your complete computer system.

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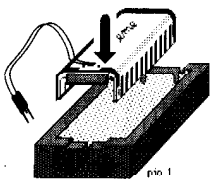
Suggested retail price is $129.95. For more information, contact Multisoft Corporation, 15100 SW Koll Parkway, Beaverton, OR 97006 (503)644-5644. *Or circle #62 on your Reader Service Card.*

Enhancements for your 100/102/200!

extRAM is a 32K byte read/write memory expansion that fits into your Tandy's internal option ROM socket, 100% portable!

extRAM fits into the option ROM socket in the 100/102/200. A quick 2-pin plug connects extRAM to battery and WR lines, all under the snap-on cover. Easy to install.



As a ***RAM-file-bank***, you can double your space for .DO, .BA and .CO files. Our new, improved system software hides in the extRAM itself. It offers you new, exciting capabilities, and it is cold-boot proof too! Adapted from original software, *SLX* and *EXTBAS*, © 1989 by Paul Globman.

As a ***ROM-file-bank***, or ***emulator***, you can load extRAM with the kind of software that normally resides on ROM chips. But no more physical chip swapping! You swap in new ROM *images* on command, from files stored on disk or RS232. Software R2D2X © 1990 by Wilson Van Alst.

The software comes with each extRAM in the form of listings in a 38 pg. manual. A program disk or tape is also available, to save typing..

extRAM... $75 ea. + tax (CA) + $3/order ship.
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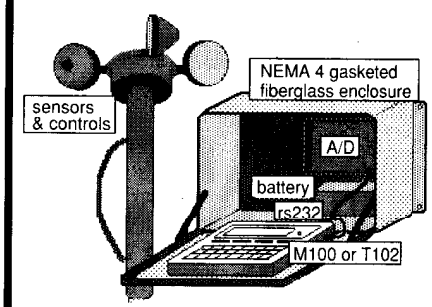
disk or tape... $15 ea. + tax (CA)
format? TDD MSDOS Mac Tape

(Circle 83 on reader service card)



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Moving Up: Chapter One

This new series will help you "move up" to MS-DOS with minimal hassle.

by Tony B. Anderson

For a long time, there has been a large group of Model 100-family users who have resisted, sometimes adamantly, moving into the MS-DOS computer world, preferring the true portables, the Model 100, Tandy 102, and Tandy 200 and like machines. I use the term "Model 100 family" as a generic description to include those true battery-operated portables produced by Kyocera, and sold by Tandy/Radio Shack, NEC, Olivetti, and Kyotronic.

In my position as forum administrator of CompuServe's Model 100 Forum, I've watched many users "graduate up" to PC's, and particularly to the current generation of PC laptops, like the Tandy 1100, 1400, 1500 and others. In many cases there is a period of adjustment from the simplicity of the Model 100 family to the PC world.

On the forum, we are often asked if anyone knows of a program for the PC that is as simple to use, or which performs some simple task common in the Model 100 world, but which is not as gargantuanly complex as similar PC programs, or which may not even be available in the PC world.

There are valid reasons to "move up" to a PC or PC laptop computer, including more power, greater speed, the ability to use programs with more features, or to achieve compatibility with job or business-oriented tasks—compatibility with the business world. I will not dispute that the Model 100 family serves a lot of users well. They are ideal first computers for beginners and those who wish to learn programming. Their portability aside, they are pretty decent little computers and will do a lot of jobs extremely well.

I myself have used a Tandy 200 for 95 percent of the support on the Model 100 Forum for the past six years, and a Model 100 before that. But there are many things that simply can't be done effectively in the Model 100-family computers (maintaining large databases of membership records, library catalog files, etc.). I eventually had to get into the PC world to handle that kind of work for the Forum. (But I went kicking and screaming, all the way!)

There comes a time, however, when many users tend to look enviously at the PC world, which doesn't suffer as many limitations as the RAM-starved Model 100 family. Many of those users come back to the Forum, or back to the Model 100, for the simplicity of use, or for the efficacy of specific programs which are not available in the PC world. A few have expressed the wish that the PC's were as easy to use as the Model 100.

The Model 100 family serves a lot of users well. They are ideal first computers ...

And *that* is going to be the thrust of this series of articles: making the PC, especially PC laptops, *as easy to use as the Model 100.*

WHERE WE'RE GOING

In this series of articles, we're going to cover a lot of ground based on the concept of moving up from the Model 100 family to the PC world ... understanding the differences, building a software base, and making as easy a transition as possible. We're going to cover technical differences only sparsely, mainly as they relate to applications, and will be taking a user's viewpoint, rather than a technical viewpoint. We're going to figure out ways to make the PC's as easy to use as possible, as the Model 100 family is. We're going to eliminate as far as possible the techno-babble that is so common in the MS-DOS world, and look at everything from the non-expert computer *user's* view. There are lots of places for those who are technically inclined to gather information, but few sources of *user-oriented* information, guidance and support. Especially from the angle of moving from the Model 100-family into the PC world. (Although I have been involved in several discussions as to whether using a PC was actually "moving up." One Model 100 owner indicated he is involved in the MS-DOS world at work, and to him, "moving up" meant moving *to* the Model 100, which is simpler to use and more rewarding.)

To this end, these articles will discuss a minimum of technical information and a maximum of application-oriented information. Each article will describe specific areas of PC use which correspond to Model 100 use, such as text programs, telecommunications, databases, *BASIC* programming, and similar subjects.

Each month I will also offer one or more pieces of shareware software selected on the basis of ease of use and/or similarity to Model 100 simplicity. These will generally include specific configurations or configuration information which will make them ready-to-run in their recommended "Easy, Model 100-Simple" form. You won't have to hunt through extensive documentation files, looking for the setup options to make the

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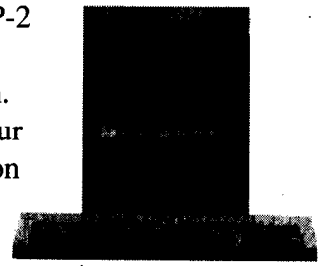
MacUser Magazine, December 1990

WPduet turns the Tandy WP-2 into the affordable portable keyboard for your Macintosh. With the battery powered, four pound WP-2, you can work on your documents anywhere. Then, you can transfer your documents to your Macintosh with **WPduet** for final editing and printing.



WPduet provides error free transfers of your documents and converts them to MacWrite II or Rich Text Format for use with Microsoft Word, Microsoft Write or WriteNow 2.2.

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Circle 9 on reader service card.

program easy to use or start.

There will be a nominal distribution charge for the shareware disks to cover the cost of the media and shipping, generally six dollars. You should be aware, however, that the distribution charge only covers those costs and does not feed back to the program author. Paying the distribution cost is not the same as paying the author for the program, who is entitled to be paid for his efforts, too.

Shareware is based on the principle that you "try it before you buy it." If you decide you like it and want to continue to use it, you should make a payment to the author for the right to do so. Generally, shareware is priced much more reasonably than similar commercial software. We're particularly looking for inexpensive programs that suit our goal of making the PC's easier to use. Authors of such programs deserve to be rewarded for their efforts, and they often offer additional incentives, such as printed manuals, later versions of the program, and technical support for that payment. I urge you to support the authors of the programs you use.

We will also discuss, where appropriate, commercial software that fits our conceptual criteria.

SO WHERE DO WE START?

Obviously at the beginning—with the rudiments of the PC, the basics you need to know in order to make the PC as useful as your Model 100 has been.

There are obvious differences in both the hardware and software, and many subtle differences, too. Aside from the obvious (additional RAM space, faster speed, larger screen, additional features) there is the greater capability—graphics, built-in disk support, and in the desktop group, many, many special purpose cards, add-ons and equipment. All at a price, of course. If you can afford it, you can do almost anything you want with a PC ... even the garden variety, bare bones systems that start in the low hundreds of dollars. By adding on, building it up, you can make any of these as useful as even the highest priced models on the market.

There are valid - reasons to "move up" to a PC

This series will concentrate on moving up to the PC *laptop* class of computer, although generically the information will apply to all PC's. We will favor the Tandy PC laptops, the 1100, 1400, and 1500; PC XT-class machines, which are currently priced within range of Model 100 owners, and in some cases are priced lower than the introductory prices of the original Model 100's. The 1400 HD, which includes a 20 megabyte hard disk, a 720K 3.5-inch disk, and 768K of RAM, is currently priced just about the same as the initial Model 100 with 32K of RAM! (Even less by mail order.)

THE WRAP-UP

One problem in covering this subject with a series of articles is that it will take months for readers to arrive at the fully-configured machine. I will be happy to answer questions sent to me via CompuServe's Email facility (send to 76703,4062) or by mail (please include a self-addressed, stamped envelope). My mail address is: Tony Anderson, P.O. Box 60925, Reno NV 89506.

Next month: Specifics on MS-DOS and some starter shareware.

❑

COMPATIBILITY: Model 100, 102, and 200 (sometimes others, with changes).

The Call of the Wildcard

While Marlin Perkins stays in the boat, Globman goes overboard.

by Paul Globman

When searching a data file for text matches, sometimes you don't know the EXACT match you want, or you may wish to locate partial matches. For example, suppose you had a data file with dated information, where the date was in the MM/DD/YY format.

And let us further suppose that you wanted to locate a group of data records which were dated from 01/01/89 to 01/31/89. The use of "wild cards" in the match string would allow you to select *01/??/89*, and extract the correct group of data records.

This routine (Listing 1) expects the match string to be *M$* and target string to be *T$*. They must both be defined before calling this match routine. Upon return from this routine, the variable *FOUND* (*FO*) is true (-1) if a match exists, and false (0) otherwise.

Within *M$*, *!* will match any upper or lower case letter, *#* will match any digit (0-9), and *?* will match any character.

Incorporate this into one of your application programs

Run this program and experiment by entering different TARGET and MATCH strings. The TARGET string would have the exact text (as would the data file), and the MATCH string would have the "wild cards." Once you observe the way this routine works, you will probably want to incorporate it into one of your application programs (that accept user input and searches for matches).

Additional notes: Variable names *P0* thru *P4* were chosen so as not to conflict with variables used in elsewhere in your program. Make changes as necessary but use caution. Also, the routine is NOT case insensitive for exact letter matches, but could be made so.

❑

Paul can be reached by modem on CompuServe (72227,1661) and GEnie (P.GLOBMAN), or by mail at 9406 N.W. 48th St., Sunrise, FL 33351 (please enclose SASE if you're requesting a reply).

```
0 REM MATCH.TIP (c) 1990 by P.Globman
10 LINEINPUT"TARGET$ ";T$
20 LINEINPUT"MATCH$  ";M$
30 GOSUB100:PRINT:PRINT"Match ";
40 IF NOT FOUND THEN PRINT"not ";
50 PRINT"found!":PRINT:PRINT
60 GOTO10
100 REM---------------- MATCH ROUTINE
101 REM match string (M$) and target
102 REM string (T$) defined before
103 REM this GOSUB.  Upon return from
104 REM here, variable FOUND (FO) is
105 REM true (-1) if match exists, and
106 REM false (0) otherwise.
107 REM
108 REM Within M$, "!" will match any
109 REM upper or lower case letter, "#"
110 REM will match any digit (0-9), and
111 REM "?" will match any character.
112 REM
115 FOUND=0:P0=LEN(T$)-LEN(M$)+1:P1=1
120 IFP0<1THENRETURN
125 FOUND=-1:FORP2=1TOLEN(M$)
130 P3=ASC(MID$(M$,P2,1))
135 P4=ASC(MID$(T$,P2+P1-1,1))
140 IF P3=63 THEN 175
145 IF P3<>35 THEN 155
150 IF(P4>47)AND(P4<58)THEN175
155 IF P3<>33 THEN 170
160 IF(P4>64)AND(P4<91)THEN175
165 IF(P4>96)AND(P4<123)THEN175
170 IF P3<>P4 THEN FOUND=0:GOTO180
175 NEXT:RETURN
180 P1=P1+1:IFP1>P0THENRETURNELSE125
```

Listing 1. MATCH.TIP *is a* BASIC *subroutine to let your programs make wildcard searches.*

The Portable 100 Classifieds

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TRANSFER.COM MS-DOS/Tandy Laptop $9.95 plus $1.00 shipping and handling (Min. $18 for MC or VISA orders; Calif. residents add 7% tax).

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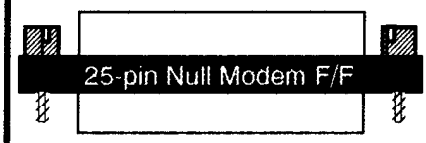

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Lucid Spreadsheet: This is the one PICO magazine says "blows Multiplan right out of the socket" and Infoworld performance rated as "excellent" and said "makes the Model 100 compute." Gives you features you cannot get with Lotus 123. Lets you build spreadsheets in your Model 100 that would consume 140-150K on a desktop. Program generating capability with no programming knowledge required. Variable column widths. Includes find and sort with function key control. It's fast, recalculates like lightning. No feature has been taken from the original, only new ones added.

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1985

January: DG has the One to Go, *Model 100 Proves Itself in the Jungles of Nicaragua*, Meet the Dulmont Magnum, *Telecommuter: Software that's Ingenious, Kyocera's Three Aces. End Telephone Tag with M100's.*

February: NEC Wishing upon Its Starlet, In-Depth Reviews of HP 110, Sharp PC-5000, *Chattanooga Systems AutoPen, AutoPad, Trip.*

March: Reviews of Epson Geneva and Osborne 3, Comparisons of Two Thermal Printers (Brother HR-5 and Printex TH-160); *The Pluses and Minuses of Batteries, M100 Data Acquisition.*

April: Reviews of Sord IS-11, Sharp PC-1350, *DISK+, T-BASE*, and Roadrunner; *Free Software: Textpro*, Technology Transfer Damming the PICO Pipeline to Russia.

May: Review of DG1, Which Spreadsheet Should you Buy? Servicing Picos, LCD Screens in Color, Federal Express.

June: Reviews of *Tandy 200, 2.2 Companion*, and *T-Backup, M100 File Transfer*; Wrangler improves the Odds with Sharp PC-5000s, Dow Jones News/Retrieval On-line Database, *Courtroom M100's.*

August: Reviews of Datavue 25 and *Touchbase Modem*; QuickTrip Convenience Stores More Efficient, Tracing Tribal Roots and Translating the Bible in Jungles of Papua New Guinea.

September: Reviews of HP Portable Plus, *WriteROM, ThinWrite 80 Portable Printer*; A Flat Mac, *M100 Meets Challenges at Woods Hole Oceanographic Institute.*

October: Reviews of Kaypro 2000, *T-View 80*; Computerized Fire Department, Stretching the limits of Telephone and Computer, *BASIC translation Tactics.*

November: Reviews of Bondwell 2, NEC 8027A Printer, CQ Haste; *PICO Formatter*, Search and Rescue Via Computers, Industry Views from an HP Exec.

December: Close Look at Ericsson Portable and *TMPC (time management software)*, Travel Tips, Tricks for Traveling, *Dialer Program, Project management with the M100.*

1986

January: Reviews of Gridcase 2, Access, WordFinder, and Prospecting, CP/M and MS-DOS, *Security Program*, Can Universities Cope with Picos? News from Comdex, *Jazz up your LCD.*

February: Reviews of ZP-150, and LeScript Word Processing; *Stevie Wonder Inspires Stardom in M100*, Can Universities Meet Expectations of Computer-literate Students? *Cold-Start recovery, Personalized Form Letters.*

March: Reviews of Panasonic Exec.Partner, Lync 5.0, and *Hardwire*; University Rethinks its Tasks, Picos in Medicine, *Auxiliary Battery Packs Spell Independence, More Muscle for the M100.*

May: Reviews of Toshiba T1100, IBM PC Convertible, Casion FX-7000G Calculator, SG-10 Printer; *MIKEY, Appointment Manager*, and *FAST*, IRS Crowns Zenith's Z-171, Handhelds in Restaurants.

June: Reviews of Zenith Z-171, *LapCoder, SuperROM, LAPDOS, and BlackJack*; Go Shopping at PC in Rochester, NY, OM10 RAM Map (pt 1), A Tale of Two City Councils.

July: Reviews of Bondwell, ROM2, Letterjet HS-80, and Sidestar,; Electronic Cottage, Taking Stock of Investment databases II, NEC 8201A's LCD, OM10 RAM Map (pt 2)..

August: NH's Governor discusses Laptops, PC-7000 from Sharp, Choosing your test-oriented Database manager, *Model 100/200's Lend a hand to Job Seekers*, NEC-8201A's Communication Connection.

October: Reviews of Toshiba 1100+, New Word, *Diconix Printers*, Fortune 500 Picos, Interview with DG Exec's, Desktop publishing with Picos.

November: Picos in Libraries, *Clever M100 Combinations, Exploring TPDD Part I*, Reviews of Datacomputer 2.0. *TPDD. TS-DOS.*

December: Pcios on Wall Street, Connecting to On-line Databases, Telephone Problems, *TPDD Part II*, Reviews of *Cleuseau, French/German Tutor 3, Pocketsize Modems*; 1986 Article Index.

1987

January: Book Publishing With a Pico, *Framework in a Pico*, Review of Right-Writer, JK Lasser's Money Manager, HP+Enhanced, Electric Webster, *Disk Power*, Pico's Computer Buyer Guide.

February: *Poor Man's Idea Processor*, Macintosh-Pico Connection, *M100 Cursor key alteration*, Handhelds: HP-18C, Langenscheidt 8000, TI-74, Reviews of Sord IS11-C, *Lets Play Monopoly, $100 letter quality printer.*

April: Browsing the Boards, Writers & Portables, KTI products, Badminton & NEC, Reviews of *Inside the M100, TTXPress Printer, PCSG Business Analyst*, Datapad 84 Zoomracks & ECFS.

May: Doctors with Portables, *Text to printer*, Hitting the Boar[OUT] of PC Convertible Add-ons, Holiday [OUT] & Shout, *M100 memory Expansion.*

June: Lawyers & Laptops, *Personal Management System, M100./Mainframe Terminal Prog.*, Reviews of Wang Portable, *Search, Sprint and Supercalculator, Best of Compuserve book*, Chess-to-go.

July: Programming in the Portable Environment, Sysop interview, Talking portables (pt1). Portable Computer Buyer Guide, Reviews of *TS-Random*, Software Carosel, Popcorn & the Hyperion.

August: NEC 8201 tokens, Laptops in Movie filming, Talking Por[OUT] Reviews of Casio FX-8000G, Tandy T400 LT, and *System 100.*

September: *English Teachers use Laptops, Picos in Class, D*[OUT]*mplates, Picos in the Oil Patch*, Reviews of ColorPro, and the *Sportster 1200 modem.*

November: *Control That Printer, Academia & Laptops*, Laptops on Capital Hill, Starlet Secrets, Reviews of Psion II, *DVORAK keyboard*, & Spark.

December: Global Laptopping, Starlet Software, Toronto Blue Jays & GRiD, *NiCd Notes*, Review of IMC LCD-286, 1987 Article Index.

1988

January: Portable Computer Cellular Communication, Laptop Roundtable, Pico Portable Guide. Reviews Telemagic, Direc-Tree Plus, SchwabLine, Quotrek.

February: TenniStat, Flexibility of Form, T200 and T16. Reviews Eclipse, T1100 Hard Drive.

May: Handhelds Fight Crime, A Pico in China, Compaq Port. III, Datavue Snap, Fax hits the Road, HP Portable Vectra, T1400LT, Three Pocket Modems, Close-Up's Customer & Support.

June: Multispeed in the Tropics, *Monitoring Alkaline Batteries*, PSION and Mass Storage, Datavue Spark, Smith Corona Portable Word Processor.

July: Toshiba on the Road, *Diskette Ratings, Metered NiCd Manager*, Procomm on the NEC, WordPerfect 4.2 on the T1000, Sales Ally.

September: Laptops & the Learning Disabled, WordPerfect 5.0, Dynamac EL, HP-71B, WordPerfect Executive, Webster's New World Writer II.

October: Portables at Sea, Macintosh Navigating, Piloting and Celestial Progs, NEC-8300, Compaq Port. 386, File Transfer, Golden Parachute.

November: European EMAIL, New Tricks for your Casette Recorder, Pico Pillows, Amstrad PPC-640, Selecting the President, Sales Power, Sales Strategy, Office Writer goes Light.

December: *FASTECH*, Automating Your Sales Force, AI, ScriptWriter, LiteDrive, Homeword Plus, VP-Expert.