

# COMPUTER BITS

This Is the Year of Software.

A STRIKING difference between the sixth annual West Coast Computer Faire this past April and previous shows was the large number of software vendors in attendance. And this time, the software being shown was of great value and indicated the power possessed by microcomputers.

Sorcim for example, showed its latest piece of magic, called "Supercalc." This isn't just another electronic worksheet patterned off Personal Software's "Visicalc"; it's a powerful information-handling tool that happens to create spread sheets. The package lists for \$295 and works with the CP/M operating system. Data entry is facilitated by using single keystroke inputs for commands and menu selections. Somewhat similar to Supercalc is Ashton-Tate's dBase II. This comes in two flavors: a

\$700 package for large CP/M systems that support anything from 5.25-in. floppies to 10M byte Winchester, and a \$350 package for the Apple II. The latter version has some unusual hooks in it, requiring a Microsoft Z80 Softcard, and Apple CP/M. To ensure proper operation of the package, and to prevent it from being loaded to larger machines, the Apple version uses part of the 6502 instruction set for certain mathematical functions.

The dBase II package is delivered as a demo diskette and a system diskette. The demo diskette lets you do everything you can do with dBase II, up to a maximum of 15 records in any one database. The purpose is twofold: first, to let you decide if this is really the package for you; and, second, to let you configure the database(s) the way you want them

before committing yourself to the full package. If you decide it's for you—open the sealed and coded package.

I have been able to use dBase in a variety of ways. To make sure I fully understood the package (the documentation is good, but still needs refinement), George Tate, of Ashton-Tate, spent a day going over it with me.

One unique feature of dBase II is its built-in language. This nameless language was designed to permit the building of command files that will work on an automatic basis and require no operator intervention. However, the language is so powerful, using constructs very much like Pascal and Fortran, that you can create specialized applications.

Still on the information retrieval side, are four packages from Personal Software. Created to turn a personal com-

puter into a powerful intelligent worksheet, four generic software packages dubbed Visiplot, Visitrend, Visidex, and Visiterm provide powerful general capabilities. These include calculations, data plotting, and financial or statistical analysis. Moreover, the packages exhibit great flexibility. Currently designed to operate on the Apple computer, they are, visually oriented, and require no special programming skill. Additionally, all the programs have a mutually consistent command structure. Visiplot, for \$179.95, produces high-resolution graphs and charts in six different formats and colors, without programming intervention on the part of the user. It can use numerical data entered directly or data generated by the popular Visicalc.

Visiplot's repertoire of "plots" includes bar graphs (cumulative and side-by-side), time-series-one plots, hi-lo charts, and scatter grams. A total of 645 data points is held in memory at one time and up to 150 data points can be plotted on a single graph. As an added feature, plots may be printed to either the Apple Silentyper thermal printer, or the Integral Data Paper Tiger Models 440 and 445. Daisy wheel printers with graphics capability can also be used.

Combining the power of Visiplot with a forecasting program is Visitrend/Visiplot at \$259.95. This package speeds time-consuming statistical calculations. Among the many types of trend analysis that can be performed are: descriptive statistical analysis, multiple linear regression, trend-like forecasting, data transformations, cumulatively total data values, generation of fitted and residual series, moving average, smoothing—line of best fit—and lead/lag and percent change. Since Visitrend works in tandem with Visiplot, the results of the calculations can be displayed graphically. And, like Visiplot, it can accept data either from direct keyboard input or from Visicalc files.

The third program in the series, Visidex, stores and provides rapid retrieval of unrelated information. Priced at \$199.95, it permits information to be entered on the screen in free-form fashion in user-defined formats. Applications can include: tickler files, mail lists, to-do lists, memos, and virtually anything you now do on paper. Up to 36 six-letter keywords can be defined for any record, thus permitting access via multiple avenues. Also included in Visidex is a built-in calendar that facilitates retrieving information by date or, if your Apple is equipped with an onboard clock, automatically purge information on a given date or time or generate a reminder for you. This data can be sorted by keyword, numeric order, or by date and set for later print out.

The final package in the series, Visiterm, at \$149.95, permits the transfer of disk file information over the phone. It is designed to work with files created by the other information packages and in-

cludes such features as single-key macro definitions, a configuration feature to match host systems, scrolling, and entry of information in upper or lower case.

All these packages are available now from Apple and Personal Software dealers on 16-sector formatted diskettes. Although there has been controversy over the command structure used in Personal Software packages, I have found them easy to learn. Personal Software supplies very informative manuals with its products. Of course, they won't do you any good if you don't read them.

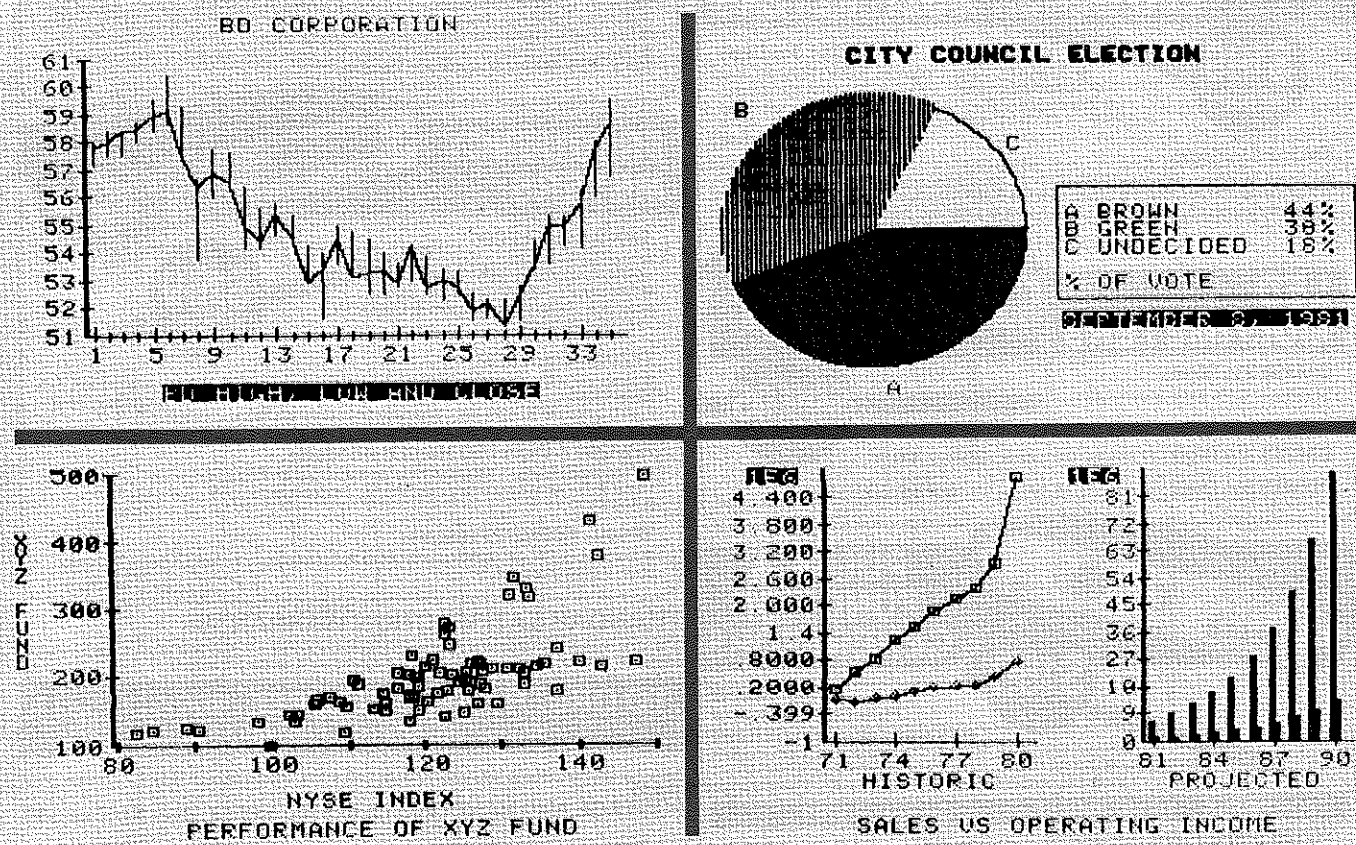
**That North Star Book.** Many of you have written requesting more information on North Star BASIC, and where to get that book I thought had been written. The book is entitled: "A User's Guide to North Star BASIC" by Robert R. Rogers. About 100 copies of the first edition are still available at \$14.95 plus \$2.50 UPS charges. You can order by contacting Robert Rogers at Scott Randolph Labs, 5924 Allday, Houston, TX 77036. Phone: 713-975-1807. The author is currently working on a new edition that might be available before year's end.

**Let's Communicate.** I know that many of you are looking for a method of getting onto MicroNet or setting up your own system. Here's how. Contact Microperipheral Corp. (2643 151st, NE, Redmond, WA 98052; 206-881-7544) and order the Microconnection for your favorite system. The modem is priced at \$199.50 with a terminal program; add another \$79.95 for the auto-dial/autoanswer module. With this in hand, you can set up your own network.

A question that has been asked about the Microperipheral modem is: why does it use a separate power supply, rather than deriving the power from the phone line? The answer, according to Microperipheral's Don Stoner, is that telephone line voltages tend to vary too much around the country, and, should a line spike occur, damage to the modem would be likely.

There seems to be a growing mass of evidence to support this design decision. A number of users on MNet have reported difficulties with modems powered from the phone line and have found it necessary to add pull-up resistors to force a higher voltage or add a power supply of their own. Pat McMullen, a technician with whom I do a great deal of work, and I ran a number of tests with various modems to determine whether or not they could work under a wide range of conditions. Our purpose was to choose a modem that could be implemented in a message network, of which we will divulge the number before the end of the year. We decided that the Microconnection met all our needs, and have it installed on the TRS-80, Heath H-89, and an S-100 bus system. Later, we will use it with the Apple II. So far, after two months, no problems. ♦

By Carl Warren



Sample printouts from the VisiPlot and VisiTrend/VisiPlot programs. Producible graphs include bar chart, scatter, pie, line, and high-low.

## computers

## NEW!!! THE ELECTRIC MOUTH\*



ELF II VERSION

for \$100, Elf II, Apple, TRS-80 Level II\*  
From \$99.95 kit  
Now — teach your computer to talk, dramatically increasing the interaction between you and your machine.

That's right: the ELECTRIC MOUTH actually lets your computer talk! Installed and on-line in just minutes, it's ready for spoken-language use in office, business, industrial and commercial applications, in games, special projects, R&D, education, security devices — there's no end to the ELECTRIC MOUTH's usefulness. Look at these features:

- \* Supplied with 143 words/letters/phonemes/numbers, capable of producing hundreds of words and phrases.
- \* Expandable on-board up to thousands of words and phrases (just add additional speech ROMs as they become available).
- \* Four models, which plug directly into S100, Apple, Elf II and TRS-80 Level II computers.
- \* Get it to talk by using either Basic or machine language (very easy to use, complete instructions with examples included).
- \* Uses National Semiconductor's "Digitaltalker" system.
- \* Includes on-board audio amplifier and speaker, with provisions for external speakers and amplifier.
- \* Adds a new dimension and excitement to programming; lets you modify existing programs and games to add spoken announcements of results, warnings, etc.
- \* Installs in just minutes.

**Principle of Operation:** The ELECTRIC MOUTH stores words in their digital equivalents in ROMs. When words, phrases, and phonemes are desired, they are simply called for by your program and then synthesized into speech. The ELECTRIC MOUTH system requires none of your valuable memory space except for a few addresses if used in memory mapped mode. In most cases, output ports (user selectable) are used.

Spoken Material Included

one	eighteen	dollar	inches	mother	ss	c	t
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four	thirty	cont	equal	it	off	set	e
five	forty	400hertz tone	feet	left	out	speed	g
six	fifty	80hertz tone	flow	less	over	star	h
seven	sixty	20ms silence	fuel	lessor	parenthesis	start	i
eight	seventy	40ms silence	gallon	limit	percent	stop	j
nine	eighty	60ms silence	go	low	please	than	k
ten	ninety	100ms silence	gram	lower	plus	the	l
eleven	hundred	180ms silence	great	mark	point	time	m
twelve	thousand	320ms silence	greater	meter	pound	try	n
thirteen	million	check	have	mile	pulses	up	o
fourteen	zero	comma	high	milli	volt	wait	p
fifteen	again	control	higher	minus	to	weight	q
sixteen	ampere	danger	hour	minute	ready	a	r
seventeen	and	degree	in	near	right	b	s

\*"Elf II" and "The Electric Mouth" are reg. trademarks of Netronics R&D Ltd. "Apple" is a reg. trademark of Apple Computer Inc. "TRS-80 Level II" is a reg. trademark of Tandy Corp.

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- Please send the items checked below:
- \$100 "Electric Mouth" kit ..... \$99.95
  - Elf II "Electric Mouth" kit ..... \$99.95
  - Apple "Electric Mouth" kit ..... \$119.95
  - TRS-80 Level II "Electric Mouth" kit ..... \$119.95
- Add \$20.00 for wired & tested units. All plus \$3.00 postage & insurance. Conn res. add sales tax.

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