

## Flying High at COMDEX



As you can see, the Las Vegas COMDEX show was an up lifting experience for SAGE<sup>TM</sup> Computer. Our balloon, anchored in the parking lot in front of the main entrance to the Convention Center, provided us with plenty of exposure.

Being noticed at COMDEX is becoming more and more important as the show reaches gigantic proportions. It's now impossible to see all the booths in a single day. The exhibition has expanded from the huge Convention Center to a new West Annex, the Hilton Hotel, the Riviera Hotel and the Sahara Hotel. It totaled 1.2 million square feet and resulted in a lot of sore feet.

However, those who stopped by our booth seemed impressed with the new look of the SAGE terminals and the addition of the 40 Megabyte Winchester to the SAGE IV line.

COMDEX also marked the formal introduction of State of the Art accounting software to our machines, and we signed several new dealers on that basis alone. Dealers who carry SA products on the IBM PC or Apple III were amazed by the speed of the SA Demonstration Package running on the SAGE II.

Logos Information Systems conducted a continuous seminar of the Idris operating system on the SAGE micros. This UNIX-like OS was very impressive, particularly when running Absoft FORTRAN 77 which compiles at 3000 lines per minute. (That's fast).

Robots always attract attention, and a mechanical arm provided by Eyring Research helped draw many into our booth. The demonstration provided a look at the PDOS operating system developed by Eyring for the SAGE and other 68000 equipment.

The software news was all "windows", with SofTech Microsystems, VisiCorp and Microsoft announcing products. These could open new frontiers for SAGE micros since programmers will need a great deal of speed and performance to develop applications for the windowing packages.

This will be especially true with SofTech's Liaison and VisiCorp's Visi-On.

All in all, SAGE did well at COMDEX. We signed a number of new dealers and were featured on two different TV News shows. And it seemed that everybody was talking about our balloon. As opposed to a year ago, people were now asking, "Where's SAGE?" instead of "Who's SAGE?"





## Review

# Micros on Prime Time

by Buddy Frank

Hollywood set the stage last year with the release of the movie *WAR GAMES*, so it was only a matter of time before television also discovered microcomputers. Indeed, faster than Silicon Valley cloned its first PC-Compatible, CBS started production of a *WAR GAMES* spinoff known as *WHIZ KIDS*.

The basic plot is simple: a group of four young teens use their home computer and a few peripherals to make the world a better place. Along the way they defeat the evil Mainframes and that diabolical group known as "The Establishment".

Actually, the villains in *WHIZ KIDS* have yet to assume a permanent character. One week it was the chief programmer at a corporate headquarters and the next it was a jolly old hacker who used his communications package to foil the cops.

One thing is certain. Without a modem, the *WHIZ KIDS* would be less effective than the *BRADY BUNCH*. If this show doesn't make the masses a bit nervous about data security, it's not because CBS hasn't tried. Every show features an illegal entry into somebody's files to uncover the bad guys. In fact, these kids are SO good at getting into programs that they're now being paid by nearby DP staffs to test system integrity. (They always find a way in!)

The positive aspect of *WHIZ KIDS* is that micros are certainly presented in a good light. They are fun, profitable and easy-to-use. Let me know if you ever see the stars struggling through confusing documentation or cursing a

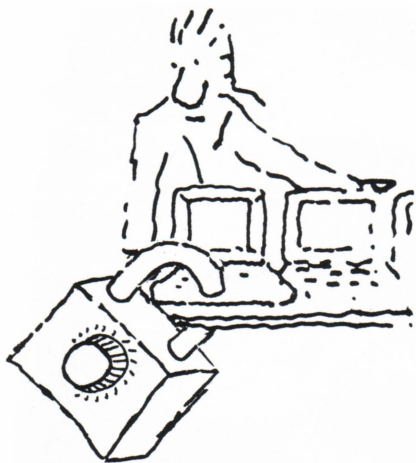
program bug. In terms of public relations, the industry should welcome *WHIZ KIDS* as a 60-minute free commercial.

However, I wonder if this show is setting public expectations so high that reality may NEVER satisfy. The 8-bit micro these kids use runs a complete artificial intelligence system, supports a voice/video recognition module complete with laser scans, is multi-tasking, can do an autodial sweep of the entire Los Angeles metropolitan phone system in less than two minutes, and has universal mainframe compatibility. Additionally, any new software solutions are generated in seconds with just a few quick lines of code. Heaven help the programmer who is asked to write a routine "like the one I saw on TV last night".

This series, which started on Saturdays, moved to Wednesdays, and has now bounced back to Saturdays, is targeted for the 12- to 24-year-old market. In that respect, it's RIGHT ON. Adults are viewed with suspicion at best, and the only credible human over 25 is a completely non-technical newspaper reporter. His role is to bring in the cavalry just before the bad guys unplug the *WHIZ KIDS*.

While none of my colleagues here at SAGE admit to watching the show, I suspect that they, like myself, are closet fans. There's something about watching a show that's beneath your position that gives it a strange appeal. It's like doctors watching *General Hospital*. There's an unexplained feeling of satisfaction in catching the technical flaws and thinking how naive the rest of America must be.





## Software Review

# Vault

Could a prankster wreak havoc with your computer files? Or, worse yet, could an unauthorized user filch precious information?

Last year, a teen-ager entered a computer which stored thoroughbred breeding information and destroyed data which cost the service \$100,000 in stud fees. Using a password given him by his father, it was an easy feat.

And several months ago a UCLA student was indicted for electronically breaking into several computer systems, including one used by the Defense Department, and destroying programs which cost thousands to replace.

If you have information worth protecting, you may want to investigate a new package designed for SAGE micros by Management Analytic Support, Inc. It's known as *VAULT* and it'll keep hackers out of your computer.

Using special coding "keys" (selected by each user), *VAULT* scrambles your information using sophisticated encryption algorithms. Information then stored, shipped or telecommunicated is as safe as if locked in a "vault". Without the special coding "keys", the information appears as garble.

*VAULT* can be used either as an integral part of a ready-to-use "turn key" application or in combination with the data processing and the telecommunications capabilities of a particular microcomputer.

In addition to the coding "keys" which you select yourself, each package can be configured with its own unique "Access" code. Without it, *VAULT* cannot be used to code or decode information. Only the *VAULT* system originally used to encrypt the file can unscramble the information. If anyone attempts to break into your *VAULT* with the correct "Access" code, you are informed of the attempted security violation.

Because of this system's unique ability to encrypt text, data, and software, the National Security Agency has placed certain restrictions on its distribution. Specifically, *VAULT* cannot be distributed as an export item, shipped overseas, or sold to agents of foreign governments. Sounds like the answer to the "War Games" syndrome!

If you have something to hide, this sounds like a great way to do it. For more information, contact MAS, 6826 Dean Drive, McLean, VA 22101, or phone them at (202) 293-1624.

## International News



Rakon personnel from left: Jolyon Ralston, Michele Kivell, Tim Kivell, Phillip Lovegrove, Steve Whitaker.

SAGE Computer debuted "down under" in August at Systems '83 in New Zealand and at the *Australian 10th Annual Computer Conference* in Melbourne. RAKON COMPUTERS is SAGE's new distributor in the region, supporting offices in Auckland, Melbourne and Sidney.

At the shows, the SAGE II/IV drew considerable attention from the industry. Articles published in *New Zealand Reviews*, *Interface* and *New Zealand Computer Scene* echoed the U.S. claim of superior price/performance ratio. They also pointed to the large hard disk storage capacity and SAGE's multi-user capability as an "attractive proposition for medium to large businesses".

RAKON COMPUTERS is a subsidiary of the Rakon Group of Companies which manufactures electronic components in Australia, New Zealand and Singapore.

## Input

### Dear SAGE:

After writing yesterday to ask for assistance in setting up my SAGE IV for use with the CP/M system, I managed to spend a couple more hours working with it, and now have the system working, so will not need the help I requested.

Your documentation, while very complete, is not as clear as it could be, and I strongly suggest you improve it in that direction, so others will not have to endure the ordeal I did to do this simple task. Perhaps you should do what Heath does - after you have written the instructions, give them to a secretary or someone else who does not know much about computers, and see if he or she can figure them out. It would be revealing to you, I'm sure.

**George Carey**  
Marietta, GA

(Ed. note — We did exactly what you suggested, George, nearly three months ago. We brought in several different groups from students to housewives to help us simplify our manuals. With their help, a layman should now be able to set up a SAGE computer in 90 minutes or less and configure a complete multi-user system in just 30 minutes more! The new manuals will be ready February 1.)





*The Westland 30 is sold in the U.S. and should have the new composite blades by next year.*

## Westland Designs New Blades

The indirect hero in many a real life drama or fictional thriller is the helicopter, whether it's searching for lost hikers, airlifting injured to safety, or serving as a camera or gun platform. With the help of a SAGE II, these shining knights of the sky are getting better all the time. At least their blades are!

Westland Helicopter of England is a leader in producing new long-life composite blades. At their plant in Somerset, they have developed a CAD/CAM system for the laying out process, and there's a SAGE II at its heart doing program control.

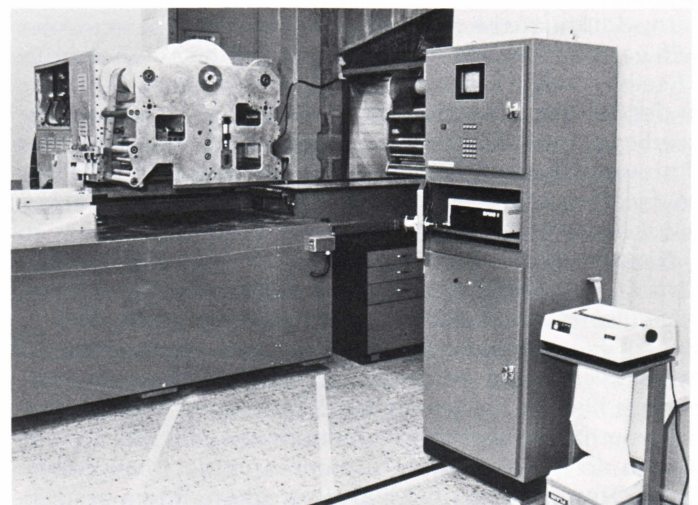
The blades are manufactured by laying a pre-impregnated roll of carbon and glass fiber out on a 50-foot bed. This sheet is then molded to the exact shape of the blades at a temperature of 120°C in matched aluminum dies. The new computer-controlled system has reduced the tape-laying time from 28 hours to just 8 hours, saving £500 per blade, and vastly improving quality control.

A composite main rotor blade is a direct replacement for the metal blade but with a greater fatigue life. It is comparable to the metal blade in geometry, weight and stiffness, and has similar dynamic and aerodynamic properties.

Protecting the main composite blade from erosion on its leading edge is a titanium shield in four sections, each individually replaceable, along the length of each blade. This shield also provides lightning strike protection and is fitted with electro-thermal de-icing equipment.

These replacement blades also reduce damage, increase safety and lower maintenance and overall costs.

The new manufacturing process has been so successful that Westland is planning to add four more SAGE IIs, monitored by a SAGE IV when they swing into mass production. Currently they produce blades just for their famous line of SeaKing helicopters. But they should introduce the new rotors to the U.S. sometime in 1985 on the Westland 30 model shown in the photo.



*An early SAGE II is at the heart of the Westland CAD/CAM system.*





*The Hello Hollywood Hello show at the MGM Grand Hotel is just one of the many entertainment opportunities you'll find in Reno at SAGE Faire '84.*

Company president Rod Coleman conceived the idea of a SAGE technical fair last spring, in the hope it would become an annual event. "I wanted to sponsor a show for those who have helped us during the last 18 months."

Coleman feels that SAGE has been successful thus far due to grassroots support. One programmer told another, developers brought their machines to work, journalists continued to use them after completing reviews, and soon they were turning up around the world in hundreds of different applications. "I think we need to return something to the community that has supported us," he says.

"Naturally my goal is to sell more SAGEs", Coleman continued, "but one of the best ways to do that is to get the various groups talking to one another." That will be the theme of SAGE Faire '84 to be held February 3-5 at the MGM Grand Hotel in Reno. It's designed as a forum for end-users, 'garage experimenters', programmers, and developers to meet and mix with dealers, businessmen, software houses and customers.

"We want those who are working with SAGE micro-computers to hear what marketing people and sales reps are asking for. And we want the retailers and OEMs to see exactly what is being done with our machines in the field." Coleman added, "It will help both groups do their jobs better and that, in turn, will help us."

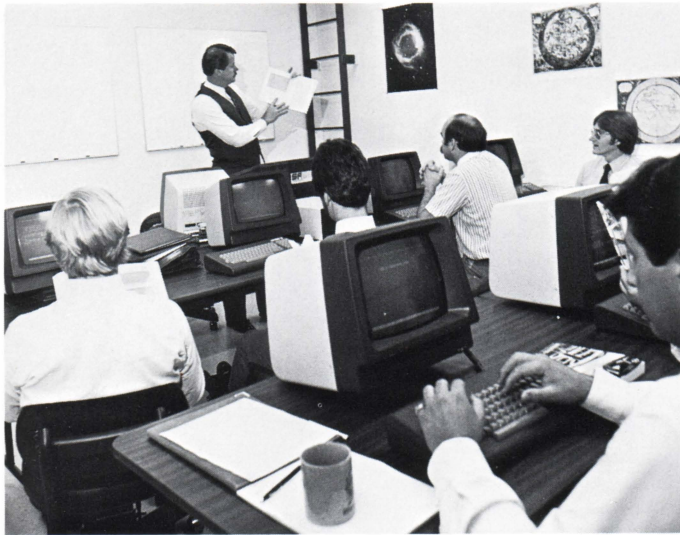
SAGE Computer now has offices across the country, but Reno was selected as the Faire site for a number of reasons. Not only is it the location of corporate headquarters and the manufacturing facility, but it is a resort town with first class accommodations and entertainment. And since February is the off-season for local tourism, there are excellent discounts offered on food, lodging and transportation.

Interest is peaking this month with the exhibit area nearly full. Some of the vendors with booths are: Ryan McFarland, SofTech Microsystems, Timberline, State of the Art, ADI, Microstrategies, Micro Research and Development and Metacomco. Likewise, a full agenda of speakers and seminars has been arranged, with double sessions to match different interest groups.

While no formal product announcements are scheduled for the Faire, Coleman has hinted that he might give the public a look at some of the projects taking shape in the Research and Development labs. For certain, the new SAGE documentation will be on display, as will some interesting software. There will be a new LISP, the Multi-User CP/M-68K, a new version of the SAGE BIOS, the network package from SofTech, and many others.

For more information on reservations, airfares, and registration, please contact SAGE Computer at (702) 322-6868. Hurry though. Time is running out.





Sales VP Dennis Mandell instructs a class on dealer training.

## Training Expanded

In a recent survey of computer dealers, TRAINING was listed as their Number One Priority. That shouldn't come as a surprise since it's tough to sell a system you don't understand. And from a customer viewpoint, it's no joy to buy a computer from someone who can't support your questions or service needs.

In response to the demand, SAGE Computer has recently opened a training center at the Reno Corporate headquarters offering classes for dealers and service center personnel.

Currently there are three courses. The first of these is a three-day 20-hour survey course aimed at new dealers. In this course, participants explore the p-System, single and multi-user configurations, and such software packages as ADI's Aladin, Timberline's spreadsheet, the Word/7 word processing, and State of the Art's accounting systems. Also, four hours are devoted to system hardware and subassembly troubleshooting.

The second offering, a divisional course, lasts five days. The additional 20 hours are used for an in-depth look at personnel, at operational groups within SAGE, and at marketing and divisional business plans.

The third program is hardware-oriented. Twenty-four hours are devoted to everything from test software to RAM addressing components to processor and Winchester boards. Perhaps the most valuable aspect of this session is the hands-on troubleshooting exercises.

Dealers may sign up for a class or obtain more information by contacting a SAGE sales representative. And feel free to call our staff in Reno for assistance with room reservations.

As a further help to dealers and salespersons, Dennis Mandell, Vice President of Sales, has organized a *Sales Training/Reference Manual* which is based on the experience of many successful professionals.

"Because everything is in one easy-to-access place," he says, "there will always be up-to-date information on each aspect of the business. Our goal with this manual is to help those selling SAGE computers to be successful. The more our dealers can learn, the more they'll be able to help the end-user."

## Software Review

# Datatree

by Dave Cline

*DataTree* is a B-Tree type database, with most of the features you would expect to find in a modern package. It is not a fully relational database, nor is it "packed with features", such as complex queries or 20-level password protection. It is not always as fast as some other packages, and some things are not done automatically for you (such as sorting the database records on input, and compaction after deletion).

So much for the bad stuff. There are three main aspects of *DataTree* that mean a lot to me, and are probably important to you too. The first is that IT WORKS. In all my playing with it, I was never able to "crash" the package, or lose my data by making mistakes. *DataTree* always told me what I was doing wrong, but didn't punish me.

The second is that it is WELL DOCUMENTED. The Arizona Computer Systems Group, who wrote the package, has gone to a lot of trouble to make sure that the beginner is not left in the lurch, NOR is the more advanced user insulted by documentation that lacks depth. The 176-page manual is complemented by a complete set of tutorial programs to show you, step-by-step, how to use all the major features in a matter of HOURS. Every menu has a HELP function, so you're always close to some friendly advice.

The third aspect is GOOD SUPPORT. I have always gotten a quick response to my inquiries at ACSG, and when I made suggestions for improvement on earlier versions of *DataTree*, action was taken quickly. ACSG is available for custom work, so if you are building a system for a client or vertical market, give 'em a call. (A multi-user database is reportedly in the works.)

So, what can it do? A lot. For instance, it has a "mail-merge" ability to insert mailing list information into form letters, and a mailing list mode to simplify running off labels, etc. There is a special list feature to create a phone directory report.

You can put together simple queries, with AND and OR operators, to see only selected records. There is a "browse" mode to allow you to quickly find a record in a database. The sorting of records can be done at multiple levels, with each level sorted ascending or descending. You can have alphanumeric, numeric, dollar and date-type fields. Records can be deleted by selection criteria, in groups. You can even resurrect deleted records, at least for a while.

ACSG has been working on *DataTree* (in one form or another) since 1978. It was successfully released by Apple in the Special Delivery Software Catalog in March of '82, and converted for the SAGE II in June of '82. The database program itself took 4 hours 20 minutes to compile on the Apple II, but only 6 minutes on the SAGE II . . .

I feel that this is an excellent general purpose database system and should be considered by anyone putting together a system requiring more than trivial data management. It is a good product at a modest cost. What more can we ask?

Write Arizona Computer Systems Group, Inc., at P.O. Box 40878, Tucson, Arizona, 85717, for further information.



## Customer Support

by Peggy Lakey

If your SAGE has more than 256K of RAM, you can increase its performance by using your excess RAM as an instant-access storage device. SAGE calls this feature RAMDISK, and it can be activated using the SAGE4UTIL program to change the system BIOS (Basic Input/Output System).

Some of our early machines had RAMDISK enabled, but recent shipments are preconfigured with the "Boot to RAMDISK flag" turned OFF. (You'll know you're operating off the floppy, instead of RAMDISK, if you hear a lot of drive activity when you're using your computer.)

To turn the RAMDISK flag ON, do the following:

X(ecute SAGE4UTIL

Type: B (for Bios file Configuration)

The screen will say:

"BIOS file name:"

Type: SYSTEM.BIOS

The screen will say:

"BIOS Version [X.X] header read successfully

Type <space> to continue."

Type: <space>

Type: E (for RAMDISK)

Type: C (for Boot to RAMDISK flag: OFF)

Type: ON, <cr>

When the screen asks, "Ready to write changes to SYSTEM.BIOS?11, type: Y

Then press <cr> until you are back at the command line.

A note of CAUTION—RAMDISK is volatile storage. When the power goes off, your data goes away. Additionally, if you use the RESET button to Re-boot your SAGE, it will clear the RAMDISK memory. This is important to remember, since the system will also set the PREFIX to RAMDISK. Programs like WORD/7 will default to save documents on RAMDISK instead of a floppy. If you were to power down without copying the material on RAMDISK to permanent storage, you'd lose your documents or data.

RAMDISK is dramatically faster than using conventional storage devices, and you're sure to enjoy it. But be careful and provide for adequate backup.

ADI has a new release of their *ALADIN* data base, and it's quite an improvement. The biggest difference is in the documentation. *ALADIN* is extremely versatile, but, with the old documentation, it was hard to learn more than half the features.

The new package debuted at the COMDEX show in Las Vegas, and the SAGE version had many of the minor bugs

## New Dealers

The number of authorized dealers throughout the country continues to grow. Welcome to SAGE:

COMPU DYNE Brent Christensen 6111 Borax Avenue Salt Lake City, UT 84118 801-967-5654	THE COMPUTER STORE Dr. Joe D'Arruda 204 Railroad Street Laurinburg, NC 28352 919-276-9336
RICK'S COMPUTERS Richard J. Hamers Highway 175 Danbury, IA 51019 712-883-2248	INSURED BUSINESS SYSTEMS, INC. Robert H. Maguire, Jr. 701 East Bay Street Charleston, SC 29403 803-722-2075
SEAWELL MICROSYSTEMS Chuck Pliske 1422 18th Ave. Seattle, WA 98122 206-322-3123	B. R. WILSON & ASSOCIATES Blain Wilson 5070 McDermott Berkeley, IL 60163 312-449-2139

## Idris on the II

Normally UNIX and UNIX-like operating systems require hard disk storage capacity, but now there's one available for the floppy-based SAGE II.

Logos Information Systems has configured their *Idris* package for a SAGE II with 512K of RAM and two drives. They promise this is a full implementation with no utilities omitted.

They offer a basic *Idris* or *Idris* with C, Pascal, and/or Absoft FORTRAN. The package comes on two to four diskettes, depending on options.

This new offering will allow many who wish to develop in the UNIX environment a low-cost alternative without sacrificing performance.

For more information, write or call Logos at P.O. Box 500, Flemington, NJ 08822, (201) 782-1533.

## Aladin Database Improved

removed. There're also some new front-end menus that get you into the data base quicker.

Updates are available for current *ALADIN* customers from ADI or SAGE Computer. Along with a \$75 upgrade fee, ADI requires return of the original diskete and documentation. The new version is also available and in stock.

We'll do a complete review on *ALADIN* in an upcoming issue of SAGE News.



## Questions and Answers

### How do I turn off the "Status Line" on my new SAGE terminal?

A few months back we explained that the reverse video status line on the bottom of the Freedom 100 terminals could be deleted by hitting local <esc>, "g". Here's a listing for most of the terminals used with SAGE micros:

TERMINAL	OFF	ON
Freedom 100	Local <esc> g	Local <esc> h
SAGE (Qume 102)	Local mode <esc> {	Local mode <esc> }
TeleVideo 925	Local <esc> h	Local <esc> g

### Is there a way to quiet the floppy disk drives?

Yes. All floppies are set at the factory to access tracks at a speed of 6 milliseconds. This value insures that the newer low-profile drives are operating within the same tolerance level as our earlier full-height drives. If you have the newer drives (about 1½-inches tall), you may use the SAGE4UTIL program to reduce the step time to 4 milliseconds, thereby reducing the noise. This procedure is outlined in the Release Notes dated August, 1983. If you don't have a copy, drop us a line here at SAGE, and we'll mail you one. (If you want the drives REALLY quiet, drop the step time to 2 msec. This may induce some seek errors, but will not damage your data.)

### FREE SUBSCRIPTION

For those who are not currently receiving SAGE News, we are offering a New Year's special. Simply fill out the coupon below, mail it to SAGE Computer in Reno and you'll receive a copy in the mail FREE for the next 90 days. To keep SAGE News coming each month, regular subscriptions are available for \$12/year.

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Ann Bjorgo



Al Ciaglia

## People

Ann Bjorgo, Sales Engineer at Corporate Headquarters, has been both engineer and technical writer, but prefers the challenge of sales. Her favorite outside activity, public speaking, led to her election as the first female president of her Toastmaster's Club in Seattle. When not devoting time to the Speaker's Bureau or politics, Ann might be found dancing, fishing, skiing, golfing, or reading. And she claims to be an expert at smoking freshly caught salmon.

Southern Division Manager, Al Ciaglia, anticipates the increased use of SAGE micros in the South. He should know! In a similar post with Commodore, Al pioneered the South from startup to multi-million dollar division. A native Chicagoan, he has enjoyed the Sun Belt for the past seven years. Al is an accomplished musician (drums are his real love), and he participates in both organized hockey and baseball.



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