Dealer news
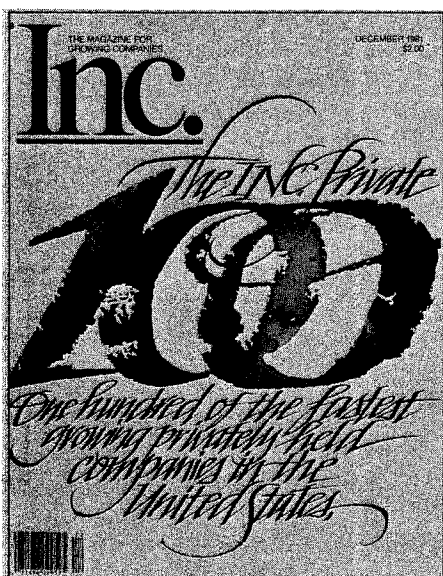
NorthStar™

INC. MAGAZINE RATES NORTH STAR IN PRIVATE 100

North Star won high-praise in Inc. Magazine by rating in the Inc. "Private 100". Inc.'s analysis of privately held high-growth companies rated North Star number two out of 100 based on their evaluations of over 200,000 privately owned rapidly growing companies.

SORBUS AT YOUR SERVICE . . .

NATIONWIDE SERVICE NOW AVAILABLE AS A SELLING BENEFIT

In our continuing effort to keep you ahead of the competition, North Star took advantage of the COMDEX '81 convention to announce that on-site third party warranty and maintenance service will be available

in the U.S. for the ADVANTAGE™ and HORIZON® computers and subsystems on a national basis through MAI/Sorbus Service.

Now, in answer to that often-asked question from a prospect, "What do I do if the computer breaks down?" you've got more, and better answers than most other microcomputer systems in today's marketplace. Our new On-Site Warranty plan can supplement with your own service programs. If you do not offer on-site service, it fills an often critical requirement of your prospects.

For example, if you already provide service programs to your customers, you can keep up the good work. You already know the selling benefits and long-term financial rewards available to you through service programs. You may never need the help of Sorbus, or you may want to offer on-site warranty if you get overloaded. The point is, it's up to you. The customers do not pay for something they don't need.

On the other hand, if you haven't yet developed a service capability for on-site maintenance of North Star systems, Sorbus is just what you've been looking for. Of course, all existing North Star Warranty Service Programs are still offered. Here's how the on-site plan works.

Customers who want on-site service may purchase contracts for three months or twelve months. A warranty service registration kit, containing instructions and an order form will be included with each computer. After mailing the form, with the check covering the selected term,

the customer and Sorbus deal directly.

Under this plan, everyone wins. You close those sales you haven't been able to make in the past because of customer fears over possible system downtime and lack of on-site service. The customer wins because the warranty service prices are guaranteed for the term of the contract, and because these on-site service plans are optional and not built-in to the price of the system.
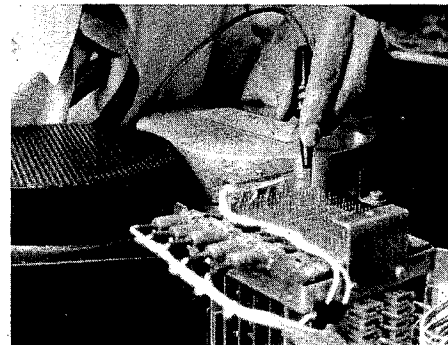
This also works to keep your system prices as competitive as they can be. In short, you sell more because this plan satisfies real customer needs.

SOME TYPICAL SERVICE PLAN EXAMPLES

While service through Sorbus is reasonably priced, North Star dealers now providing direct on-site service, or those who plan to in the future, can easily remain competitive, both in terms of price and plan flexibility. On the other hand, your customers will find the Sorbus options and guaranteed costs to their liking.

For example, here are some typical service costs and conditions. You'll note that following the warranty service contract, Sorbus offers a monthly on-site service agreement. As you can see by its per-month cost, it is designed to provide the customer with an incentive to initially purchase a service contract.

SYSTEM CONFIGURATION:	Three Months	Twelve Months	Mthly. Maint. Costs After Initial Plan
HRZ-2Q-64K	$100	$400	$40
ADV-2Q-64K	$ 90	$360	$36
HDS-18	$140	$560	$55

START PRACTICING YOUR SMILE

Third party on-site service through Sorbus will be available starting in January 1982 in nine major metropolitan areas: New York, Los Angeles, Philadelphia, San Francisco, Washington D.C., Atlanta, Boston, Dallas, and North and South Chicago. Within six months, Sorbus service will be available in 50 major areas nationwide. You can call (415) 357-8500 ext. 9100 to determine if your city has been opened for service. Further details on the program will be sent to you soon.

This may also be the ideal time for you to remember North Star's co-operative advertising plan. Priming your prospective audiences with messages about this unique and very competitive service advantage, just may make for your best-ever post-holiday sales season. We'll also be doing our part to let your prospects know about this new North Star service plan.

ANNOUNCING . . .
PROPAC™ DEMO SALE

North Star is happy to announce a PROPAC Application Software promotion designed to put this valuable package for professional offices (Lawyers, Certified Public Accounts, Doctors, etc.) in your hands to understand, demo and sell!

For only $200 any Authorized North Star dealer (direct or indirect) may purchase one complete PROPAC package by sending a letter and a
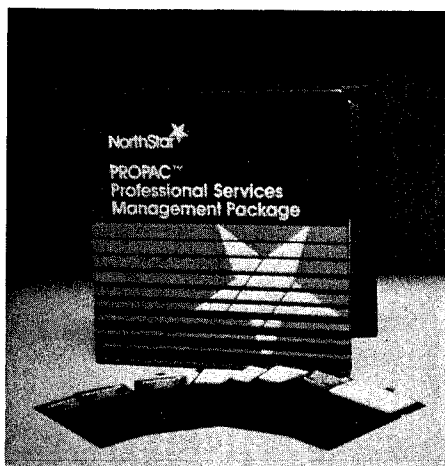
check for $200 to North Star, marked to the attention of Janet Shropshire.

This $200 special is available on a one-per-dealer basis and expires January 31, 1982. Ordering information is as follows: (Remember . . . Address your letter directly to Janet to assure prompt handling of your order.)

DESCRIPTION	PART #	SPECIAL PROMOTION PRICE
PROPAC—Professional Time Keeping System	00582	$200

NEW SOFTWARE TO UNLOCK SALES OPPORTUNITIES

MICROPLAN™ FROM NORTH STAR

North Star is happy to respond to your frequent requests for a Financial Planning Package with Microplan. After extensive review and hands-on testing of currently available alternatives, we chose Microplan because of the clear advantages outlined below. Not only is Microplan clearly ahead of it's competitors, but it has been optimized for operation on North Star's new ADVANTAGE system.

SUPERIOR USER INTERFACE

At any time the user can review the latest updated data being modeled. All of the program functions of Microplan are displayed on screen on the far right side at all times and are scrollable to desired functions areas. A HELP function which explains all of the individual program

functions is callable during program operation. Full status display and function prompts insure ease of operation and minimize operator input errors.

Row and column operations allow many more operations with much simpler user input expressions than cell oriented systems. For example, to input data along a row where the value is growing at a constant rate over the modeling time period, one simply inputs the base value and the growth constant. Microplan then fills out the row with the correct values rather than the user. Whole rows may be combined by arithmetic operations to generate new rows. For example, several rows can be added, multiplied by a constant subtracted from another row with the result filling in a new row. All of the above can be done with a minimum of user input, but with full prompting and screen updating.

In addition to the above key advantages, Microplan offers the following important features:

- Common Statistical Analysis Functions
- Callable Modeling Tests
- Custom Report Generation

North Star uses Microplan extensively in-house for Marketing, Financial, and Operations modeling as well as budgeting and planning activities.

The North Star Microplan package operates on both the HORIZON and the ADVANTAGE, and includes both a manual and quad capacity diskette. Ordering information for the North Star Microplan package is as follows:

Description	Part #	Suggested List
North Star Microplan	00966	$399

Standard Dealer/Distributor discounts will apply.

NORTH STAR
NEWS BITS

North Star has signed a $25 Million three-year agreement with General Binding Corporation, a 50 year-old Fortune 1000 office products company with a strong established small business system sales network. North Star products will be marketed under the GBC brand.

Welcome Ted Buxton —North Star's new Trade Show Coordinator. Ted started his first week at North Star by setting up and managing our booth at COMDEX. He takes this in stride though, because he comes to us from Interstate Electronics—a $75M Company serving a variety of markets from balistic missiles to voice recognition equipment—where he handled corporate Trade Shows and Public Relations. Ted is a graduate of Cal State Fullerton, majoring in Marketing Communications and Public Relations.

COMDEX '81: A DISTRIBUTION SUPERSHOW FOR NORTH STAR

The doors swung open at the Las Vegas Convention Center for this year's COMDEX almost an hour ahead of schedule. Outside, the biggest crowd in the show's history stood waiting, crowded in the ticketing lobbies. Inside the Center, more exhibitors than ever before— more in fact than attend NCC— awaited a record-breaking flood of independent dealers and distributors from all over the country and around the world. In short, this year's COMDEX was the biggest ever . . . and the best.

At North Star's booth, a 40-foot long wall of ADVANTAGE single user and HORIZON based TSS/C multi-user systems made their public debut, stepping through their business routines and graphics exercises, drawing enormous interest and the largest number of ISO and end-user leads in the company's history. North Star's systems were clearly among the show's main attractions.

At times, the number of people in the booth grew so large that North Star hosts had to move in the aisles to make room for viewing. The result: no other show in North Star's history has done more to help us expand and strengthen our family of dealers. And the many end-user leads we received will be forwarded to you immediately.

WHERE DO WE GO FROM HERE?

As proved by the crowds, by the number and types of exhibitors, by the large assembly of leading press people who came, and the thousands of independents who attended... independent distribution has now been recognized by the industry as a major growth element for this decade and beyond. It's time has come. And COMDEX itself has become the premier annual meeting place in this country for ISO's and companies with outstanding products like the ADVANTAGE and HORIZON systems

But that comes as no surprise to North Star, whose products and policies have long been tailored for distribution through independent dealers just like you.

NORTH STAR PROVIDES COMPREHENSIVE DIRECTORY OF COMPATIBLE APPLICATIONS AND SYSTEMS SOFTWARE

North Star's marketing department has prepared a comprehensive directory of applications and systems software to assist you in locating software requested by your customers. There are over 70 Accounting packages and 23 Financial Analysis packages including Financial Modeling, Personal Finance, Tax Preparation and Investment Management applications. Word Processing packages, Data Base Management Systems and Project/Time Management Packages are listed. Industry specific application packages spanning 12 industries are also included. Versions of 10 Languages from Algol to PL/1, Operating systems and utilities are provided as well. In all, over 330 North Star HORIZON and ADVANTAGE compatible programs from 99 domestic vendors are listed along with each vendor's name, address and retail price. Future editions will include application packages and systems software from International sources as well.

This directory has been created to help you locate the exact application package, language or utility that you may need to satisfy the requirements of a prospect and thus create a new customer.

You will receive your copy of the directory in January. This is a very useful tool! Use it! Profit by it! Help us keep it accurate and expand it. If you find any errors or if you know of any packages not included please provide the information on the forms provided in the back of the directory. Future revisions of the directory will be sent to you reflecting these updates.

1982 DEALER TRAINING SCHEDULE

The following schedule of Dealer Training courses are offered for Authorized North Star Dealers. Under our new policy, each dealer may send one person free of charge to each different session. Additional people may attend at the regular rates. For registration and more information contact the Training Registrar at North Star (x536).

DEALER TRAINING SCHEDULE — 1982

● January 21, 22	TF	System Software
● January 25-29	MTWTF	Application Software
● February 1-4	MTWT	ADVANTAGE Orientation
● February 5-9	FMT	HORIZON Orientation
● March 1-3	MTW	Sales Strategies
● March 4,5	TF	System Software
● March 8-12	MTWTF	Application Software
● March 29-April 2	MTWTF	HORIZON & ADVANTAGE Maintenance

✦✦✦ SEASON'S GREETINGS ✦✦✦
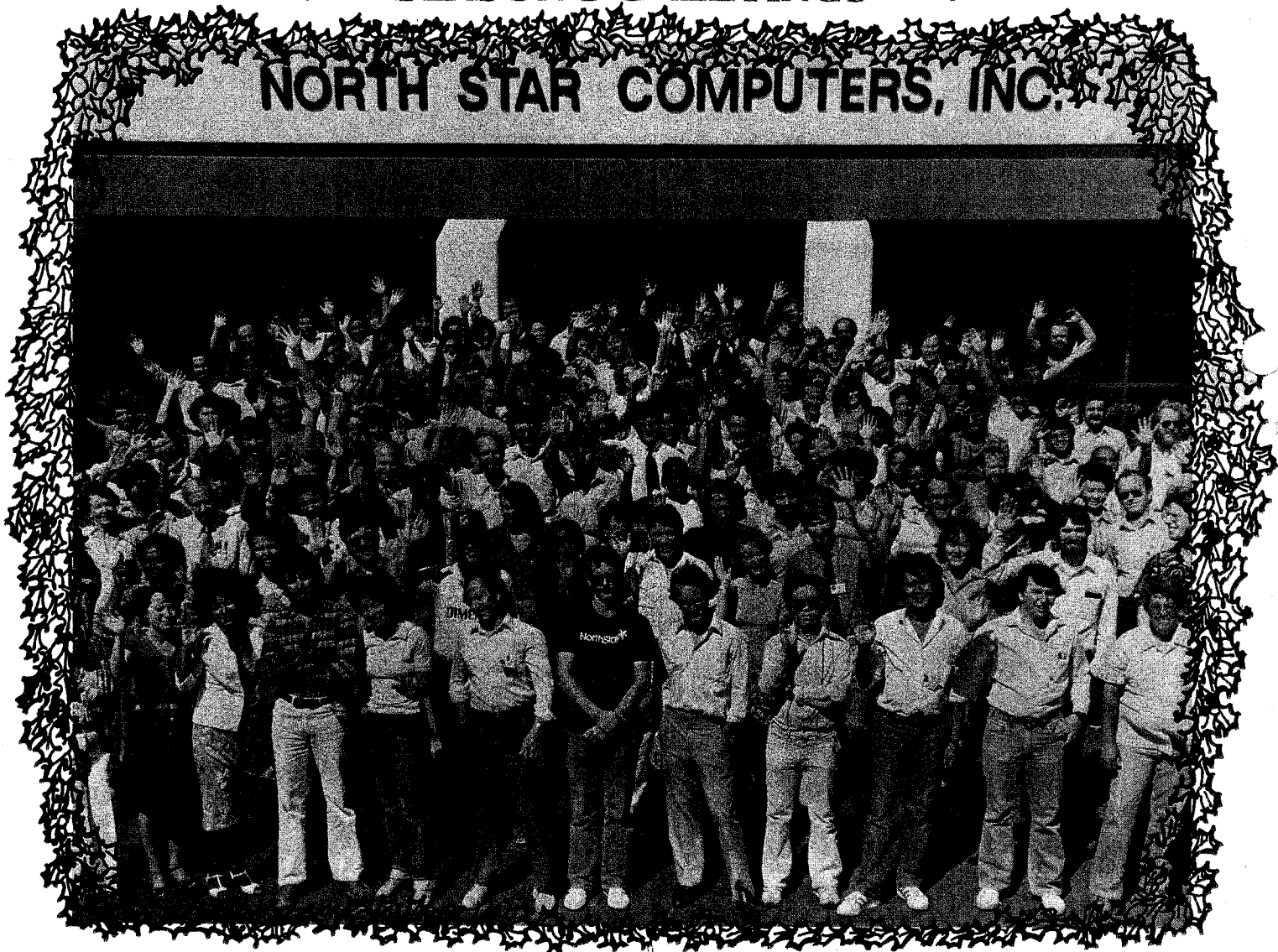
## The North Star Staff joins together to wish you a Happy Holiday Season!

Volume 4, Number 6, November, 1981

ADVANTAGE™ ANNOUNCEMENT RECEIVES INDUSTRY-WIDE ATTENTION

The industry was ready. You were ready. We were ready...with a new product that was capable of doing more, for less, and doing it better than anything anyone had ever seen before. The ADVANTAGE. Announced in September, this new system from North Star has received more attention more quickly than any other single product ever introduced in North Star's history.

Why? Aside from excellent market timing and overall anxiousness for "something better" on the part of worldwide users, the product itself is being rated among one of the finest to be announced this year.
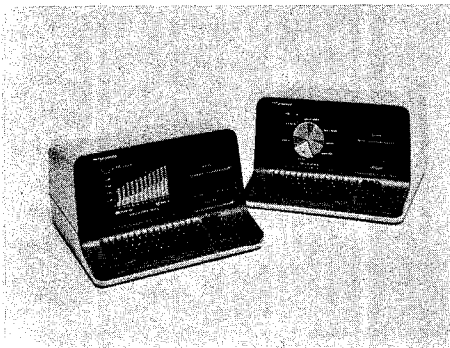
It's an integrated system. It offers bit-mapping for superior graphics capabilities. It's got twice the disk storage capacity of any competitive product out there. It runs true

CP/M®. And it's priced right — $3,999 retail. Simply put, no other company, including IBM and Xerox, offers anything like our ADVANTAGE.

For example, IBM's recently introduced Personal Computer can not generate text and graphics simultaneously. The ADVANTAGE can with more than twice the floppy disk capacity. We're already several steps ahead, and that's where we intend to stay...with continuing product enhancements, some of which will be announced very soon.

Deliveries are on schedule too. Although the initial demand for the ADVANTAGE created an almost instantaneous backlog, production schedules are on track. By the first calendar quarter of this coming year, North Star's ADVANTAGE production line will be in full operation and deliveries to you will return to a standard 30 to 45 days ARO.

To help keep the momentum going, look for the new ADVANTAGE Ad Campaign to break in January. It's as top-flight and aggressive as the product itself, and will serve to keep the industry's attention focused on an "advantage" only North Star and you can provide today. To answer one repeatedly asked question: How are we able to offer the Advantage at such an incredible price, considering all of its features? The main savings results from leaving the S-100 bus and packing all the electronics on a single board. That, and our normal ingenuity in general...

NATIONWIDE AD CAMPAIGN FOR MULTI-USER HORIZON® COMBINED WITH AGGRESSIVE PACKAGED PRICING ACHIEVES RESULTS

North Star's new Multi-User HORIZON systems are scheduled to get their fair share of national advertising exposure beginning this December, following their successful press introduction in September and announcement in mid-September of a special "bundled" price.
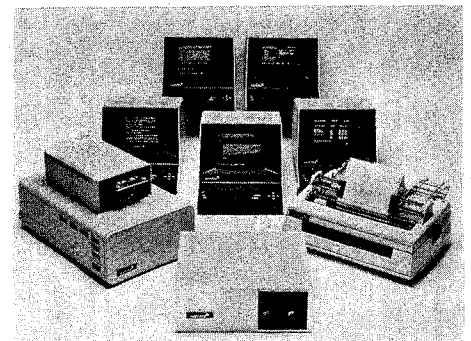
The advertising blitz promoting the new Multi-User TSS/5 and TSS/18 systems will appear in widely-read trade and business publications reaching thousands of decision-making business executives and end-users, including the approximately 30,000 users of existing installed standalone HORIZON systems as well as first time users looking for a multi-user system.

Multi-User Ad Campaign, *continued*

And now we have dropped the recommended retail price of the TSS/18 4-user system from $12,916 to a bundled price of $10,500 for the 64K HORIZON, 1 Quad drive, 18Mb disk, HSIO-4 and three additional HRAM-64 memory boards (P/N 85024). Combined with TSS/C Multi-User CP/M and HDOS for only $699 including the required 32K RAM board (P/N 85026), this system gives you the price/performance and price per/user edge you need. No dealer can make the multi-user claims you can with this package... lowest price per user, 56Kb/user memory, true CP/M compatibility, real file protection.

Many dealers are achieving dramatic success with this TSS/18 system. TSS/5 based multi-user systems started shipments in October. For a configuration guide and ordering information on all of the Multi-User HORIZON systems, refer to your 8/1/81 price list and your dealer manual.

HDS-5 5Mb WINCHESTER NOW AVAILABLE AS HORIZON UPGRADE

The long awaited HDS-5 5¼" 5Mb Winchester disk HORIZON upgrade is scheduled to start shipments in December. Priced at only $2999, this compact Winchester disk dramatically expands the on-line storage capacity of any existing quad HORIZON. As supplied, the HDS-5 drive comes with a controller board, power regulator board, required cables, HDOS Software and an Installation Hardware kit. The comprehensive manual includes complete instructions for removing an existing floppy drive and installing the Winchester drive, power regulator, cables and controller board.

The HDS-5 requires a single quad drive for operation. HDS-5 cannot be installed in the ADVANTAGE.

HDS-5 offers an excellent sales opportunity for you to upgrade existing users of HORIZON systems to multi-user capability or simply to increase storage capacity in a single user system. When an HD-5 is installed in a system, we suggest that the removed 2Q drive is retained by the end-user as a spare. Ordering information for HDS-5 is as follows:

Description	Part #	Retail Price	Avail-ability
HDS-5 5¼" Winchester Disk Drive-5Mb Capacity	00582	$2999	Dec.

## New Software To Unlock Sales Opportunities

NEW PROPAC™ SOFTWARE DESIGNED FOR "EXPLOSIVE GROWTH" PROFESSIONALS MARKETPLACE

"We said it before...we'll say it again and again," notes North Star Vice President of Marketing Elliot Wassarman. "Software is the key to increased sales in this decade and beyond. Without the best software programs, we can't stay competitive, no matter how good our hardware is." He adds, "We've got excellent software now, and we're going to continue the pace of our software releases because that's where our competitive edge will be in the future."

PROPAC is one such software package. It's a new three-module set of programs for business professionals who bill by the hour. With it, you can increase your sales among an existing client base of professionals while capturing new sales among lawyers, accountants, physicians, advertising and public relations agencies, engineering firms, consultants and hundreds of other individuals and businesses that can't operate efficiently without such programs.

"Time is Money"

Professionals that bill for their services by the hour have one product and one inventory: their time. If they misplace some, fail to capture it efficiently, if they utilize manual systems that prolong their billing cycles...if they are unable to analyze where they are profitable and where they are not and why, they can't be competitive.
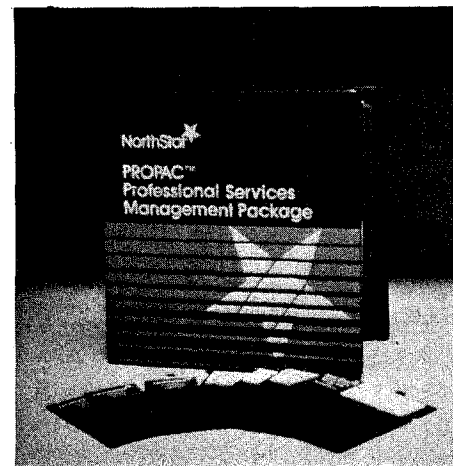
Few, if any, application software packages perform these functions as well as PROPAC. And, it does it in ways that make sense to the businesses it is designed to serve, using procedures that are well-understood, and providing additional management tools that simply aren't possible using manual methods or more general accounting packages.

PROPAC consists of three modules: Client Profiles, Client Time and Billing and Client Receivables. PROPAC will run on Single User HORIZON Hard Disk systems or Multi-User HORIZON systems and it is compatible with other business software packages from North Star such as NorthWord™, GeneralLedger, and AccountsPayable.

Client Profiles — the "Status Report" Module

Some of the biggest problems all time-professionals face are keeping track of their client bases and their work in progress as well as building

client files and maintaining an updated billing and activity report on each client. Manually, this is a task that can consume hundreds of valuable person-hours of both professional and administrative time.

The Client Profile module of PROPAC not only uses words and procedures that make sense to time-professionals—words like "docket" or "matter," for example—but it automatically establishes critical set-up and follow-up procedures that streamline client services and improve productivity. In fact, the productivity enhancement possible by just this one module can more than pay for the cost of the total hardware and software within a very short period of time.

PROPAC's Client Profiles Module analyzes billable and non-billable professional time, quickly enabling management to pinpoint problem areas. It allows for cross-reference reports and listings of basic client information such as contact names and addresses, finance charges, interest indicators and work in progress status. Overtime activity, billable productivity and other reports are kept for each individual in the firm, automatically.

Client Time & Billing Module — Capturing That Valuable Inventory

This is the program that automatically turns an entire staff's individual time records into finished invoices, quickly and efficiently.

Another unique feature of this PROPAC module is that it will automatically calculate billable time using different hourly rates. The system will also keep track of time measured in 10ths of hours.

Work description codes may also be used. As invoices are generated, these codes are converted into prose descriptions, dramatically reducing

the keystroking time spent entering billing information.

Lastly, with this module, users can sort and analyze the financial state of their business in unique ways to produce mid-monthly reports that tell them just how well they are doing long before the close of the month.

Client Receivables — Linking Into General Accounting and Financial Reporting Packages

The third module maintains accounts receivable on a balance forward basis by client and provides for the entry of cash payments and adjustments. This data can automatically be posted to North Star's other financial/business software programs such as the GeneralLedger and Financial Reporting package. Journals are printed and complete audit trails are available.

The documentation and User's Manual provided with PROPAC are extensive. They include installation guidelines, a "hands on" learning tutorial and report samples. Also included are 14 special data input forms for the efficient organization of data entered into the system.

PROPAC will be available for delivery in December.

PROPAC ordering information:

Description	Part #	Retail Price
PROPAC-Professional Timekeeping	00500	$2999.00
PROPAC Doc only	00641	$65.00

TWO NEW PRINTER OPTIONS OFFERED

North Star announces two new printer options for the HORIZON and ADVANTAGE computers:

Model NS-100 dot-matrix printer (EPSON MX-100)

The NS-100 is a serial impact matrix printer capable of printing 80 characters per second bidirectionally or bit images at 60 or 120 dots per inch density. It is the perfect printer for printing graphics from the
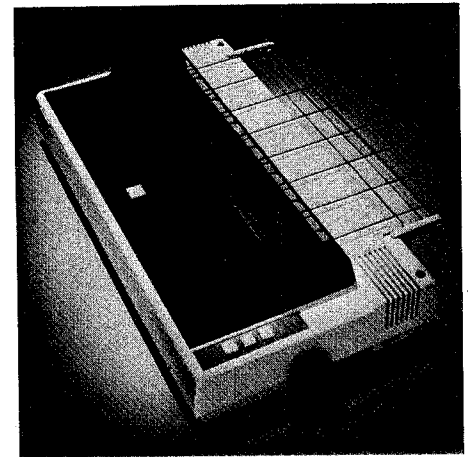
ADVANTAGE. The NS-100 feeds up to 15.5" wide paper with either friction or tractor feed. The NS-100 requires an NS-100 Serial Interface Board option, to operate with ADVANTAGE or Multi-User HORIZON. This board includes the required 2Kb buffer for printing graphics images.

Model 3510 NEC letter quality 33 cps printer

The 3510 offers all the features of the 5510 at 33 characters per second and a lower list price of $2589 and with the advantages of lower noise, higher reliability and maintainability, 9600 baud input, and longer ribbon life.

Additional features beyond the 5510 include a new sound proofed bidirectional tractor, print and function self-test, and FCC RFI standards and UL, CSA and VDE safety standards. Deliveries start in November. The Model 3510 is switchable between 115 and 230 volt operations.

New printer Ordering Information:

Description	Part #	Retail Price	Avail-ability
NS-100 Printer, 115V, including cartridge ribbon, dot matrix print head and paper separator	00389	$ 995	Nov.
NS-100 Serial Interface board with 2Kb buffer (required for ADVANTAGE or Multi-User HORIZON)	00388	$ 155	Nov.
NEC 3510 Printer 110/230V, including bidirectional tractor, ribbon and thimble.	10019	$2589	Nov.

Everything You Ever Wanted To Ask But Were Afraid To Ask...

NEW DEALER MANUAL AVAILABLE

Following a summer-long endeavor to assemble in one binder a complete set of sales tools and information, pricing schedules, configuration guides and prospecting aides, North Star has completed and distributed its first-ever dealer manual.
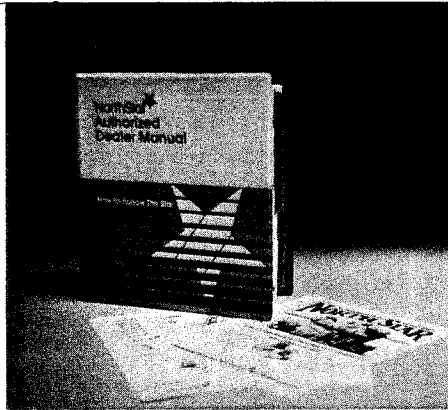
It offers seven expandable, update-able sections describing everything from our basic philosophy as a company to what you need to know before running a cooperative ad.

In fact, you'll find detailed product information as well as information about North Star's history, market focus, international advertising and public relations programs, dealer incentives, point-of-purchase and point-of-sale materials, ad slicks, and a section on service policies.and procedures. If you haven't received your Dealer Manual yet, please contact the Marketing Communications Department immediately.

By now you should have also received the first Dealer Manual Update Package. By means of these periodic update packages, North Star helps you keep your manual accurate and up to date with new pages covering new products or policies. Please follow the instructions provided and keep your Dealer Manual up to date.

PRODUCT LINE STREAMLINING

We are making efforts to simplify our product line in a way that will increase sales and make carrying the North Star line even easier.

Specifically, we are announcing the elimination of several hardware products this month. However, we will continue to deliver them through January 31, 1982 for orders received by December 31, 1981. The eliminated products fall into several categories:

HORIZON	The Horizon line will be reduced to three configurations: HRZ-2Q-64, HRZ-1Q-64-HD5 and HRZ-1Q-64-HD18, all with metal covers. Separately packaged wood covers will be offered at a nominal price.
TERMINALS	The SOROC terminal will be eliminated. We may announce an alternative terminal in the near future.
ADC	All Additional Drive Cabinet products will be discontinued.
NEC 5510 PRINTER	The NEC 5510 printer and ribbons will be discontinued. The NEC 5510 is being replaced by the NEC 3510 printer.
MISCELLANEOUS	MailManager, HRZ-DRV-D, and HRAM-48 will also be eliminated.

Needless to say, we are very concerned about your feelings on this. We have plenty of time to respond if these decisions will cause serious problems. Please write to our Market Research Department if you feel that some of these products should not be eliminated next February.
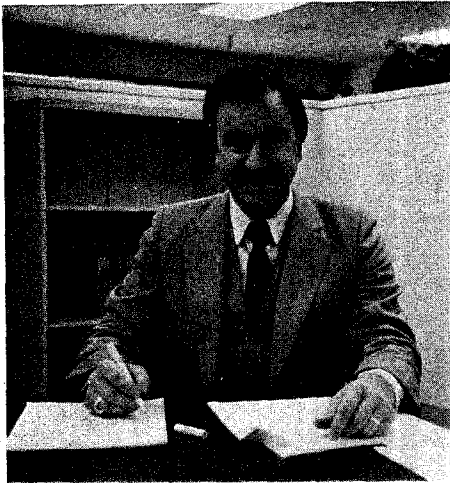
NEW LITERATURE PRODUCTS AVAILABLE AT NO CHARGE

As new literature is generated as well as posters, counter cards and such, an initial quantity is mailed to all Authorized Dealers. Additional quantities may be obtained by ordering through the Marketing Communications Department.

Listed below are the descriptions, part numbers and quantity shipped for all sales literature currently available for order. You may re-order data sheets and the like as frequently as you like, but do not abuse this free literature program. Should you need larger quantities for a mailing or trade show, ask the Marketing Communications Department for a price quote.

PRODUCT LITERATURE AVAILABLE

Name	Part #	Price
ADVANTAGE Data Sheet (100)	25709A	N/C
HORIZON Data Sheet (100)	25711A	N/C
MULTI-USER HORIZON SYSTEMS Data Sheet (100)	25710A	N/C
HORIZON HARD DISK SUBSYSTEMS Data Sheet (100)	25712A	N/C
TAPE BACKUP Data Sheet (100)	25714A	N/C
LEMONADE Ad Reprint (50)	00345-01	N/C
LEMONADE Introduction Brochure (50)	00402A	N/C
MULTI-USER Ad reprints (available mid Nov.)	00345-03	N/C
MULTI-USER Ad poster (available mid Dec.)	00403-03	2.75 ea.
LEMONADE Ad poster	00403A	2.75 ea.

NORTH STAR
NEWS BITS

You asked for it...we've done it. Available now are new features for AccountsReceivable and AccountsPayable and an upgrade package for the GeneralLedger and Financial Reporting Package. Don't worry if you've already ordered any of these. You'll automatically receive the new versions.

AccountsReceivable, for example, can now utilize the 9-digit zip codes. AccountsPayable, too. Both also will interface to the InventoryControl package. The part numbers and pricing for the above update packages are as follows:

AccountsReceivable 2.0.0 update   List $45.00
    Dual-00681
    Quad-00680
    Hard Disk-00682

AccountsPayable 2.0.0 update   List $45.00
    Dual-00686
    Quad-00685
    Hard Disk-00687

GeneralLedger/Financial Reporter   List $45.00
    2.0.0 update
    Dual/Quad-00649
    Hard Disk-00664

New products...the ADS Application Development System is available now. Note the Ad which will be running in November and December.

ADS gives users the programming tools to create their own business-oriented applications programs... and whatever they create will automatically fit with North Star's own Application Software Package...like NorthWord™, InfoManager™, ACCPAC™ and the TSS/A Multi-User System. Although ADS, because of its special nature, is sold only directly by North Star's OEM department, a finders fee is paid to dealers who refer customers.

The TSS/C Multi-User CP/M® and HDOS System is now available. Works for up to five simultaneous users and is compatible with CP/M programs or programs written in North Star BASIC. Microsoft COBOL and FORTRAN are also up and running, available off the shelf. All are included in your latest price list.

Remember the best deal in town for Multi-User Systems—TSS/18 just $10,500 Retail Price—just over $3K per user fully configured!

Tape Backup System deliveries begin in December. The 13.4 Mb tape cartridge capacity is ideal for backup of 18Mb hard disk HORIZON systems, at Retail Price of $3895. Software for backup on single and multi-user ASP, CP/M and HDOS is included.

Response to our Application Software promotion has been very heavy—$598 for two complete six-pack sets worth over $8000 retail. Sell one and keep one or sell both for high profit and purchase a third set at regular discount.

Manfred Omenzetter

North Star has recently opened a European Headquarters in Munich, West Germany. Staffing the position of Marketing Manager of Europe, Manfred Omenzetter brings to North Star significant experience in developing and supporting European distributors after five years with Rockwell International micro-processors division.

Karl Sterne

Welcome Karl Sterne...North Star's new Manager of the HORIZON product line. He comes to us from Sybex Company where he was in charge of marketing their books on microcomputing.
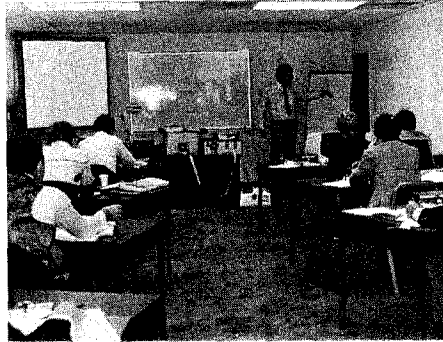
Robert Hornbeck

Also welcome Robert Hornbeck as Western Region Sales Rep to be located in San Leandro,...and Richard Lucas as South Central Region Sales Rep working out of Dallas, Texas.

Richard Lucas

DEALER TRAINING SEMINARS

If you wish to attend any of the many North Star seminars that are conducted each month, contact the Training Registrar at North Star (X 536). Under a new policy, each authorized Dealer is entitled to send one person free of charge to one session of the hard disk, hardware, and system and application software seminars. Additional persons may attend at the regular rates and 30% discounts are available for combined seminar attendees.

System Software	$250	Two days
Hard Disk Servicing	$150	One day
Hardware Servicing	$250	Two days
Application Software	$350	Three days

CO-OP ADVERTISING 100% CREDIT EXTENDED THROUGH YEAR END

In mid-September dealers were notified that you may take 100% CO-OP CREDIT (instead of the usual 50%) for all ads you place that exclusively promote North Star products between September and November 30, 1981. THIS 100% CREDIT PERIOD IS NOW EXTENDED THROUGH DECEMBER 31, 1981. Dealers, this is money in your hands to promote your business. Take advantage of it! Use our Ad Slicks provided in the dealer manual or your own advertising that exclusively promotes the North Star HORIZON, TSS/5 Multi-User System, the ADVANTAGE, or any other North Star products. For example, use it to promote the newly announced HDS-5 5Mb Winchester Disk as an HORIZON upgrade to the installed base in your area.

TRADE SHOW SCHEDULE
1. COMDEX '81—Nov. 19–22, 1981, Las Vegas, NV, Booth 1315
2. Beijing/U.S. Dept. of Commerce Light Industry Show—Feb. 5–15, 1982, Beijing, PRC.
3. NCC Office Automation Conf.— March 22–24, 1982, San Francisco, CA, Booth 344-443
4. Interface '82—March 22–25, 1982, Dallas, TX, Booth 256-260
5. Hanover Fair—April 21–28, 1982, Hanover, W. Germany, (Booth # T.B.A.)
6. NCC '82—June 7–10, Houston, TX, Booth 7523

Introducing:
Ray Commander, Manager, International Sales

As Manager of International Sales, Ray Commander is responsible for planning and directing North Star's sales and support efforts outside the U.S. and Canada. Ray and his department handle the recruiting of new Authorized Distributors, Dealers and OEMs, and provide necessary sales service and support to our existing distribution channels. They work in close cooperation with members of other departments, including Marketing Administration, Finance, and Marketing Communications in planning and implementing those programs and policies for the international marketplace.
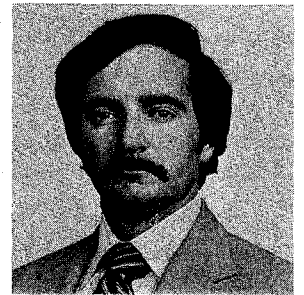
20% Reduction in Retail Price of HORIZON® Systems

Get ready now for what's sure to be a continuing rush of customer inquiries, and sure-fire increases in sales. When the news reaches the general public in early March in a series of news releases, be ready for those customers!

Now the HORIZON®—the system that's proven itself over many years, that wears the known and trusted North Star name, that's been given powerful multi-user capabilities, that's recognized for extreme reliability—as of March 1, has a new retail price of $3,599. That's a decrease of $896, or a 20 percent drop in the retail price. We've also lopped $400 off the price of 64K RAM memory boards, a 36 percent reduction that lowers the retail price to $699. Users now can't find a better, lower priced multi-user S-100 system anywhere else. You have it.

The Best Solution, At The Best Time, At A Very Competitive Price

North Star's announcement of major price reductions comes at a time when product demand is already very high... at a time when users are shopping for the best price... and at a time that you can best take advantage of an incredible combination of industry-leading price and performance competitive edges.

For example, the price of all North Star application software packages has also been reduced,

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NorthStar   **March 1, 1982**
North Star Computers, Inc.

Suggested Retail Price List

Computer Systems

SINGLE USER¹

ADVANTAGE™:
Two Floppies

		$3,599
		5,999
HORIZON®:		
Two Floppies (360Kb each)		7,999
5Mb Hard Disk + 360Kb Floppy		
18Mb Hard Disk + 360Kb Floppy		

	Hard Disk	360Kb Floppy
		$ 9,049
	7,749	9,749
	8,449	10,449
Users:	9,149	11,149

Software

NORTH STAR APPLICATION SOFTWARE FAMILY

NorthWord™	$199
InfoManager™	399
GeneralLedger	499
AccountsReceivable	499
AccountsPayable	499
InventoryControl	499
OrderEntry & Invoicing	499
Professional Client Accounting & Billing (PROPAC™)	1499

OPERATING SYSTEMS

Single-User

ADVANTAGE: Graphics CP/M	$299
Graphics DOS/BASIC	299
North Star Applications (Hard Disk)	299
HORIZON: CP/M-2.2	230

Multi-User

HORIZON: TSS/A (North Star Applications)	$499
TSS/C (CP/M Applications)	499
TSS/C (with 32K RAM)	699

CP/M' SOFTWARE FAMILY

WordStar™	$500
SpellStar™	250
MailMerge™	150
Microplan™	389
Fortran	499
Pascal-80	600
Cobol/M-Sort	875

HDS-5 Now Available with the ADVANTAGE™

There's no mistaking the trend toward greater mass storage. In recent months, thousands of single- and multi-user microcomputer owners—looking for better response times, more data storage and more powerful total systems—have turned to low-cost, small-sized hard disks to meet their storage needs.

It's a trend we've planned for, and to which we can now offer a very exciting match. Now, North Star's popular and competitively-priced ADVANTAGE is available with an integrated 5¼ inch floppy (360Kb capacity) and a 5¼ inch Winchester hard disk (5Mb capacity) for only $6,599. Deliveries begin in March.

What does this really mean? To you, the Dealer, it means the availability of an expanded storage capacity hard disk system that is truly a small business computer. To your customers, it means expanded storage capacity from .72Mb to 5.36Mb, making the ADVANTAGE the ideally suited single-user desktop computer for small business accounting applications, as well as those applications that require more than .7Mb of storage. It also means increased performance through faster access time using the hard disk.

In addition, new software is

Important Changes

North Star Announces Major Product Consolidations

North Star is making selling easier for you, the Authorized Dealer, by standardizing and streamlining its products to give your customers the best options, and you the least amount of headaches.

Throughout this newsletter, you'll find articles which detail all of the more important changes, ranging from a new and better documentation policy to the updating of system languages. Even more explanation will be available in the Dealer Manual update, which will arrive in your mail soon.

What you'll notice is that, overall, we're bringing the HORIZON series and the new ADVANTAGE systems closer together by making more operating and application software compatible. Here is a list of some of the changes that have been made.

- Discontinuation of the Multi-User special price of $10,500, since the new price for the equivalent system is a lower $10,445.

- Elimination of 48K memory boards.

- Elimination of all separate floppy disk drives and cabinets (MDS and ADS).

- Elimination of wooden cabinets, except as a separately purchased option ($99) that comes non-integrated with the HORIZON.

- Elimination of all HORIZONS with "D" floppy disks or with less than 64K memory.

- Elimination of domestic Soroc and Hazeltine terminals.

This way, your decision now on behalf of customers—made with an eye on the future and your customer's growth plans—will be easier to make. The systems and software you now buy on behalf of customers will more easily grow and migrate with them to the next North Star level, with fewer hardware and software changes required, less product obsolescence, and less waste.

In brief, this streamlining was the result of careful long-term product planning, making your job as an Authorized Dealer easier, with more efficient stocking (fewer items to carry) and less of your valuable dollars tied up in low-volume inventory.

Extended Precision Standard With Graphics BASIC/DOS

Since users of ADVANTAGE systems may now elect to operate either hard-disk or floppy-disk-based systems, North Star has further streamlined the configuration and ordering process by combining various operating systems and options.

Beginning March 1, ADVANTAGE system users will automatically get both a hard- and floppy-based Graphics DOS operating system, also with Extended Precision BASIC at no extra cost, when they buy Graphics BASIC/DOS at the regular retail price of $299. See your new price list for ordering details.

Demo Software Sale Ends March 15

North Star's demonstration software sale for both PROPAC™ and North Star Application Software, originally scheduled to end Jan. 31, has been extended to March 15.

The special application software package (including NorthWord™, InfoManager™, GeneralLedger, AccountsReceivable, Accounts-Payable, InventoryControl and application software utilities) is available for $299. Dealers can order up to two sets at $299 each by sending in their software certificate and order form plus a check for one or two packages to Janet Shropshire, North Star's Dealer sales coordinator. PROPAC™ can be also ordered by sending a letter of request and a check for $200.

Each software offer is available only once per dealer, until March 15. If you have not received a software certificate and order form announcing our software offer, contact Janet at ext. 534.

Hurry to get your orders in—this is an offer too profitable to miss!

Oops! We Goofed

In the Dealer letter dated Jan. 5, 1982, announcing North Star's On-Site Service Program, the telephone number for Sorbus' Dallas office was incorrect. The telephone number in Dallas is (214) 263-1987. Please note this change.

New CP/M Products Available in March

North Star announces the addition of MicroPro's™ WordStar™ to its line of CP/M based products, featuring the improved 3.01 version with SpellStar™ and MailMerge™.

North Star's version of WordStar runs under CP/M, Graphics CP/M and TSS/C, which means any customer with a single-user HORIZON, multi-user HORIZON or ADVANTAGE computer can use the program. And now you won't have to search around for a WordStar software application package that fits your customer's HORIZON or ADVANTAGE; you'll be supported directly by North Star.

WordStar, known as the microcomputer industry standard for word processing, features horizontal scrolling, allowing the user to see all the text on a line longer than the screen width, exactly as it will appear in print. It also offers a column mode, particularly useful in creating and editing tables.

SpellStar, a computerized "proofreader," weeds out typing and spelling errors, automatically. MailMerge permits the production of form letters with variable data inserted, as well as the insertion of named files during printout or printing of multiple duplicate copies. And while producing single copy documents, MailMerge also facilitates the insertion of "boiler plate" paragraphs where specified within a document. Both MailMerge and SpellStar are sold separately.

All three products are available in March.

MicroSoft Pascal Replaces UCSD Version

North Star is replacing UCSD Pascal 1.5 with MicroSoft's implementation of the Pascal language. This has been done for two reasons: first, it makes the Pascal language version consistent with the other North Star languages provided by MicroSoft, namely Fortran and Cobol; and second, it brings a major improvement to the Pascal offering. Programs written in Pascal will operate on both the ADVANTAGE and the HORIZON.

MicroSoft's Pascal will be available in April, and will retail for $600 in either floppy or hard disk single-user versions. See your new price list for ordering details. Pascal under TSS/C is not currently available (more on this later).

New HDOS Operating System Offered

A new, improved version of North Star's HORIZON Hard Disk Operating System, HDOS 2.0.0., was released last November. Currently shipped with all HORIZON hard disks, its features include faster data access, improved hard disk testing facilities and more friendly system prompts including a HELP command.

The TSS/C Multi-User Operating System runs only under HDOS 2.0.0., so if your customers buy TSS/C for HD-18's shipped before Jan. 1, 1981, they will also need HDOS 2.0.0. We will ship a FREE copy of HDOS 2.0.0. to every Distributor and Dealer who requests it, up to the total of hard disks ordered by that Distributor/Dealer.

available for the new hard disk ADVANTAGE. It includes:

- Graphics CP/M, available in March, with a list price of $299.*
- Graphics BASIC/DOS, available in March, with a list price of $299.*
- HDSO/ADVANTAGE, the operating system that supports the single-user North Star Application Software on ADV-64K-HD-5, with a list price of $299 (available in May).
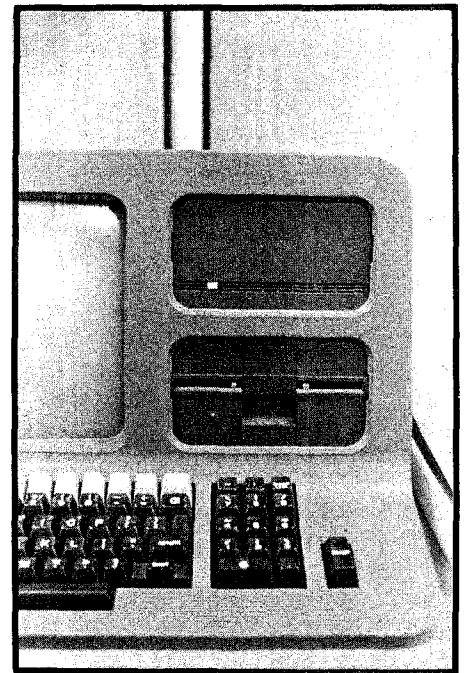
North Star's new hard disk ADVANTAGE is available in March.

Now you, the North Star Authorized Dealer, can offer yet another option to your computer customers—an option to choose between a floppy-disk ADVANTAGE or a larger capacity hard disk ADVANTAGE.

Check your new price list for ordering details.

* Both Graphics CP/M and Graphics BASIC/DOS will be upgraded from their current ADV-2Q-64K versions so that all ADVANTAGE configurations will operate with one part-numbered software product for either floppy or hard disk environment.

# Free Literature and Promotional Materials Available

As North Star announces major price reductions and expanded software and hardware to the public, make sure you have enough literature and other promotional materials on hand to meet the demand of potential customers who request written information.

Two new data sheets, describing the NS-3510 and the North Star Application Software Packages, will be sent to you soon. The NS-3510 data sheet details features and specifications of the letter quality printer, and the North Star Application Software Packages sheet describes the NorthWord™, Info-Manager™, ACCPAC™ and PRO-PAC™ packages.

And in addition to the usual data sheets, ad slicks, reprints and posters available to you, North Star also offers its authorized dealers the loan of North Star banners for computer trade shows and demonstrations. The banners, available from North Star's Marketing Communications department, are loaned on a first-come, first-served basis.

When new literature and Dealer support materials are printed, an initial quantity is sent to all Authorized Dealers, but additional supplies may be obtained through North Star's Marketing Communications department. Quantities of up to 200 data sheets are shipped free. When you call North Star to order these materials, please ask to be connected directly with the Marketing Communications department.

Be sure to order materials before your supply is depleted to allow time for order processing and mailing. Keep in mind that it may take up to three weeks for our literature to arrive, so order early! If you need large quantities for a mailing or trade show, ask the Marketing Communications department for a price quote.
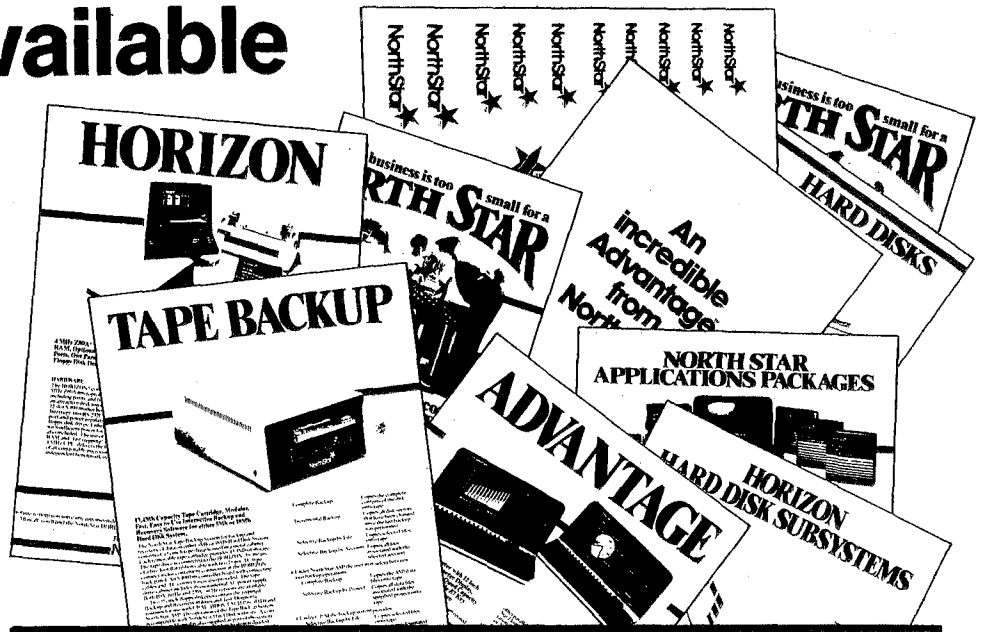
Name	Part Number
ADVANTAGE data sheet	25709A
ADVANTAGE ad slick	*
ADVANTAGE announcement ad reprint	*
DATAQUEST RESEARCH NEWSLETTER	*
(ADVANTAGE and ADS)	*
HORIZON data sheet	25711A
Multi-User HORIZON Systems data sheet	25710A
HORIZON Hard Disk Subsystems data sheet	25712A
Benchmark Reports (HORIZON)	*
Lemonade ad reprint	00345-01
Brick Window ad reprint	00345-02
String Quartet ad reprint	00345-03
Chicken and Eggs ad reprint	00345-04
Lemonade introduction brochure	00402A
Lemonade ad poster	00403A
String Quartet ad poster	00403-03
Multi-User HORIZON ad slick	*
Lemonade ad slick (small or large)	*
HORIZON Software ad slick	*
Tape Backup data sheet	25714A
Tape Backup ad slick	*
Hard Disk ad slick	*
North Star Application Software Packages data sheet	25715
NS-3510 Letter Quality Printer data sheet	25716
Suggested List Price sheet	*
North Star logo slicks	*

* no part number required

CP/M Updated

Software. Software. Software. We keep pounding on the subject, and we'll continue to hit on it hard because it still represents to North Star one of our single biggest advantages in the 1980's and beyond. It's what we feel will distinctly separate us from a host of other suppliers for many years to come.

Our latest move to keep our software at the state-of-the-art level is to bring you the newest CP/M version. Starting with shipments this month, CP/M 2.2 release 1.1 replaces the release 1.0 that's been available for some time and represents a full and complete upgrade of the previous version. Of course, you already know CP/M is available to users of the HORIZON series multi-user system with the TSS/C software.

Unlike the several available multi-user CP/M look-alikes, TSS/C is a true superset of CP/M. TSS/C also provides many features that facilitate running programs originally written for CP/M in a single-user environment by providing larger user partitions and high level contention control.

Graphics CP/M, like Graphics DOS, combines both hard disk and floppy disk operating system into one software product.

some as much as 50 percent. In addition, as detailed elsewhere in this newsletter, North Star has added six new products ranging from a hard-disk ADVANTAGE™ system to state-of-the-art CP/M® application software packages.

Here's a brief listing of some of the more important price changes affecting the HORIZON series and other North Star products. Complete price lists and an update for your Dealer Manual will arrive soon.

Product:	Was:	Now:
HRZ-2Q-64K	$4,495	$3,599
HRZ-1Q-64K-HD5	6,695	5,999
HRZ-1Q-64K-HD18	9,270	7,999
HRAM-64K	1,099	699
HRAM-32K	599	499

Peripherals Meet Customer's Computing Needs

North Star has announced three peripherals for your customer's computing needs: the Model NS-100 dot-matrix graphics printer and the Model NS-3510 Letter Quality Printer for the HORIZON and ADVANTAGE computers, and the 13.4Mb capacity tape backup system for the HORIZON.

The NS-100 is a serial impact matrix graphics printer capable of printing 80 characters per second bidirectionally or bit images at 60 or 120 dots per inch density. The perfect printer for printing graphics from the ADVANTAGE, the NS-100 feeds up to 15.5 inch wide paper with either friction or tractor feed. The NS-100 comes with a standard parallel interface, but requires an NS-100 serial interface board option to operate with the standard ADVANTAGE or multi-user HORIZON. All of these are available for delivery this month and appear in our new price list.

The NS-3510 offers all the features of the 5510 at a speed of 33 characters per second, at a lower list price of $2,589, and with the advantages of lower noise, higher reliability and maintainability, 9600 baud input and longer ribbon life.

North Star's 13.4Mb capacity tape cartridge offers HORIZON customers a tape backup system for the backup and recovery of data on either 5Mb or 18Mb hard disk system.

All three products are available for immediate delivery.

Tape Backup System

NS-3510

Free ADS Seminar Scheduled

North Star will conduct a one day introductory seminar on the Application Development System (ADS) on March 8 at the Boston Marriott.

All North Star Dealers and Distributors are invited to attend the seminar, conducted in conjunction with a two day programming seminar for ADS licensees. The introductory meeting will provide complete information on all aspects of the ADS, from programming suggestions to licensing details.

The seminar will run from 10 a.m. to 3 p.m., and is also open to the public. For further information, call Aram Attarian at North Star (ext. 531).

Trade Show Update

North Star will attend the following trade shows in the next few months. If you're there, stop by and see us!

Office Automation Conference
April 5-7
Moscone Center, San Francisco

Hannover Fair '82
April 21-28
Hannover, West Germany

National Computer Conference
June 7-10
Houston AstroDomain

News Bits

- Welcome to the first issue of Dealer News in 1982. Happy New Year! To celebrate what is almost certain to be another record-breaking year, we've given the Dealer News a new look and format. Dealer News will bring you informative articles, and help you keep up-to-date on every aspect of North Star computers. Follow the star!

- Dealers: brace yourself for a wave of returning North Star customers! In a January letter, North Star introduced all end-users to our new five megabyte hard disk system, inviting them to their local North Star Authorized Dealer for a demonstration. The HD-5 upgrades are available for immediate delivery.

- For the many Authorized Dealers who participate in North Star's training classes, you will see a new face on the scene. Dennis Lunder has joined North Star as the company's manager of product training, and is responsible for the planning and implementation of all training classes. A Ph.D. in math education from the University of Denver, Dennis was previously with Fairchild, Microprocessor Division, where he was director of microprocessor education.

Dennis Lunder   Sheri Correa

- Also welcome Sheri Correa, North Star's new editor/copywriter. In addition to writing and publishing Dealer News, Sheri is also responsible for all of North Star's other newsletters, including the new quarterly end-user newsletter. Sheri was previously with Bozell and Jacobs Public Relations.

Updated Dealer Training Schedule

The following classes will be offered in March and April at North Star's training center in Hayward, Calif.

March 1-3	MTW	Sales and Marketing Strategies
March 4-5	ThF	System Software
March 8-12	M-F	Application Software
March 29-April 2	M-F	HORIZON and ADVANTAGE Maintenance
April 19-21	MTW	Sales and Marketing Strategies
April 22-23, 26	ThFM	ADVANTAGE Orientation
April 28-30	WThF	HORIZON Orientation

Please check your Dealer Manual for instructions on how to sign up.

Dealer Hotline Hours Expanded

In order to provide all Dealers with better support, yet still allow our specialists sufficient time to research the more difficult technical problems, North Star is modifying its Dealer hotline hours. To better serve you, the hours are now 8:30 a.m. to 3 p.m. Pacific Standard Time.

North Star Kicks Off New Ad Campaign

North Star will kick-off a new advertising campaign May 3 with two-third page ads in Time magazine, featuring the toll-free 800 number readers can call to secure the name of their nearest North Star Dealer.

The black and white ads, comparing the North Star ADVANTAGE with such other desktop business computers as the IBM and Apple, will run biweekly in Time's 35 major metropolitan circulation areas. In addition, North Star will continue to run advertising in selected electronic industry publications.

"This year we're taking a different approach to advertising, concentrating on fewer publications and running ads more frequently in those magazines we utilize," Marketing Communications Manager John Corser says. "Our rifle shot approach this year includes spending a substantial amount of money on ads in Time magazine, which will provide greater exposure to more potential purchasers than we have ever been able to reach in any previous publication.

"Our approach is to concentrate on telling the readers that the North Star ADVANTAGE is the superior product."

The new ads, which will reach a potential 12 million readers each issue, will be a continuing series and will have such themes as the introduction of future new products and software availability from North Star.

"North Star's new advertising campaign has a three-fold

purpose," Corser explains. "First, the campaign calls the readers to immediate action, asking them to utilize the toll-free 800 number to get the name of their nearest North Star Authorized Dealer. Second,

Compatible Software Directory On Its Way

North Star's Compatible Software Directory, a comprehensive reference guide to application and system software compatible with the HORIZON or ADVANTAGE computers, will be mailed to all Authorized Dealers and Distributors the first part of April.

The directory, designed to assist

you in locating software requested by your customers, will include over 330 North Star HORIZON and ADVANTAGE compatible programs from 99 domestic vendors, listed with each vendor's name and address, required operating system and retail price.

North Star Expands . . . Again

Thanks to you, North Star is expanding again, this time into a 24,000 square foot building adjacent to our present space. A new, spacious Dealer training classroom will occupy the new building, as well as Technical Services, among other departments.

"North Star's new Dealer training classroom will be ready for classes by June," reports Training Manager Dennis Lunder. "And the larger classroom will accommodate additional equipment and more students, making it easier for Dealers to attend the classes they need."

In addition, since the new classroom is next to corporate headquarters, Dealers will be closer to key personnel at North Star, and can have their questions answered easily. North Star will move into its new building in April.

North Star is expanding to a 24,000 square foot building adjacent to headquarters.

Wanted: Application Stories

You and your HORIZON or ADVANTAGE customer could be stars! North Star is looking for application story ideas from customers and dealers, for use in trade magazines, newsletters and other public relations/communications vehicles. And you, the North Star Dealer, could be the key!

If you know of a customer who uses the HORIZON or ADVANTAGE for unique or unusual applications, please let us know immediately! If you think you may have a handle on an interesting application or feature article, please drop us a line, giving us the name, address and phone number of the customer, as well as a short paragraph on how that customer uses their computer, to:

North Star Computers, Inc.
14440 Catalina St.
San Leandro, CA 94577

attn: Marketing Comm. (ApAr)

New Service Program Tested

North Star will begin testing its Authorized Service Center Program on April 15, according to Technical Services Manager Al Peterson.

An initial test, limited to four preselected sites, will permit North Star to evaluate the benefits of the program and iron out any "bugs" in administrative procedures before implementing the program on a worldwide basis.

The Authorized Service Center Program is designed to:

• improve end-user satisfaction by providing faster turn-around on repairs.

• reduce costs for non-servicing North Star Dealers, Distributors and OEMs through local service.

• provide North Star with better feedback on field reliability data.

• provide local service in areas where North Star's ON-SITE Service Program cannot be employed.

The Authorized Service Center Program will first be introduced in the United States and then expanded to Canada and our international markets later in the year.

New Trade Show Booth Debuts at OAC

North Star will debut its new trade show booth at the Office Automation Conference in San Francisco, April 5-7, according to Ted Buxton, trade show coordinator.

North Star's new booth, in its full configuration, totals 1,600 square feet, focusing on a 14 foot tower featuring the North Star name.

North Star will also attend the Hanover Fair in West Germany, billed as the largest trade show in the world. The fair, scheduled for April 21-28, offers not only automated technology of all kinds, but also exhibits from eight other industries.

If you're in the San Francisco area, or will be in West Germany at the right time, stop by our booth!

Office Automation Conference
April 5-7
Moscone Center
San Francisco, CA
Booth # 836

Hanover Fair
April 21-28
Hanover, West Germany
Hall 18/OG, stand 1102

National Computer Conference
June 7-10
Houston AstroDomain
Houston, TX
Booth # 7523

Comdex
June 28-30
Atlantic City Convention Hall
Atlantic City, NJ

Compatible Software Directory

It includes 70 accounting packages and 23 financial analysis packages such as financial modeling, personal finance, tax preparation and investment management applications; more than 15 word processing packages and 18 data base management systems, along with eight project/time management packages; 64 industry specific application packages spanning 12 industries and 35 versions of 10 languages from Algol to PL/1, combined with 17 operating systems and 39 utilities.
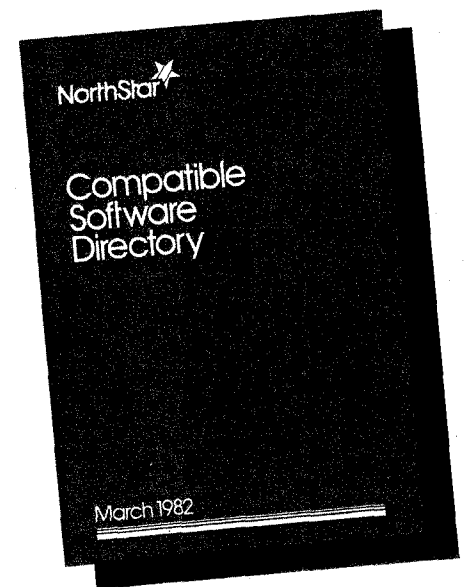
This reference guide was created to help you locate the exact application package, language or utility that you may need to satisfy the requirements of a customer, quickly and easily.

Each Authorized Dealer and Distributor will receive one copy of the North Star Software Directory, free of charge. North Star will issue periodic updates to the directory, and future editions will include application packages and system software from international sources as well.

Technical Tips

(editor's note: Technical Tips is a new Dealer News column featuring technical tips for you, the North Star Authorized Dealer or Distributor.)

- MicroPlan™ requires CP/M® 2.2 to operate fully on the ADVANTAGE.
- The HORIZON floating point board (FPB) is only available on the HORIZON and is designated as an FPB-A.
- TSS/C offers users 47.75K TPA for CP/M-based applications.
- HORIZON and ADVANTAGE PIO (parallel input/output) ports require individually unique cables. Please refer to your price list for specific part numbers.
- The new North Star demo disk 2.0.0 now contains the test routines described in the ADVANTAGE technical manual: SIO Board Test, Video Test and Display Monitor Test.

Advertising Campaign

the campaign will achieve more national brand name recognition for North Star, as Time readers continually see the ads. And third, the new ad campaign will introduce new products to North Star's target audience, the ever-expanding first-time user market."

It's now more important than ever to be an Authorized North Star Dealer and have your dealership and telephone number referenced on our 800 service. If you aren't sure whether you're listed, just call 800-447-4700 and check it out. In the event your name is missing, please notify Marketing Communications right away.

Look for the May 3 issue of Time magazine as North Star kicks off its bold new advertising campaign, and be ready for this target audience to come knocking on your store's door. Watch for them, as they follow the star!

News Bits

- North Star is pleased to announce the addition of Gail R. James to its staff, in the newly created position of director of marketing.

  Gail comes to North Star with almost 20 years of experience in the computer industry, and was

Gail James

most recently a microcomputer industry consultant. In addition, he has held posts at Qume Corporation (vice president, memory product marketing) and Memorex (national sales manager, OEM products).

Reporting to Elliot Wassarman, vice president of marketing, Gail will be directly responsible for the activities of product marketing and training, and will be involved with other areas of marketing on an indirect basis.

- Reminder: all co-op advertising claims must be in no later than thirty days after the close of the first quarter (March 31) to be paid. For more information on co-op advertising, please refer to your Dealer Manual.

- The new end-user newsletter, North Star Notes, debuted this month, mailing to all North Star end users, as well as to Authorized Dealers and Distributors. Be prepared for an influx of calls and visits from North Star customers, wanting to see demonstrations on, or to purchase the latest products and software.

Dealer Training Schedule

Sales and Marketing Training	April 19-21
ADVANTAGE Orientation	April 22-26
HORIZON Orientation	April 28-30
HORIZON and ADVANTAGE Maintenance	May 11-14
ADVANTAGE Orientation	May 19-21
Application Software	May 25-28

Check your Dealer Manual for directions on signing up for these classes.

User Group Information Needed

To better serve our customer base, North Star is compiling a mailing list of all North Star user groups, for informational purposes. If you are a member or have knowledge of the user groups in your area, please send us their name and most current address, so we may keep them up-to-date on North Star and its products. Please send this information to:

North Star Computers, Inc.
14440 Catalina St.
San Leandro, CA 94577

attn: Marketing Communications (UGr)

Watch For Your Dealer Update

North Star's Dealer Manual update, containing a reorganized and updated Section Three, as well as price changes, new policies and procedures and other updates, will be mailed out in April.

In addition, every Dealer and Distributor should have already received a package of the new suggested retail price list. If you haven't, please call North Star's Marketing Communications department to place your order.

ADVANTAGE FPB Discontinued

Because of insufficient market demand, North Star has discontinued the floating point board for the ADVANTAGE. Orders placed will be cancelled and returned to you shortly.

DealerNews

Enhanced MicroPlan™ and WordStar™ Offered To Dealers

Two powerful and well known CP/M® software packages, MicroPlan ™ and WordStar™, have now been enhanced by North Star to give users the edge. And to give you an edge in selling the products, North Star announces that for a limited time only, each Authorized Dealer may buy one copy of Enhanced WordStar and/or Enhanced MicroPlan for only $99 each. This special offer, which expires June 1, 1982, is extended to our Dealers to encourage you to demonstrate the valuable enhancements we offer the user in North Star Enhanced MicroPlan and WordStar. (See the enclosed order form for further details.)

North Star Enhanced MicroPlan™ includes improved documentation.

North Star Readies for NCC

North Star is gearing up for the National Computer Conference in Houston, Texas, June 7-10, according to Ted E. Buxton, trade show coordinator.

The new booth, which made its debut at the Office Automation Conference earlier this month, will expand to cover 1,600 square feet, and will include 23 separate product demonstrations using North Star hardware and software.

The Office Automation Conference, held April 5-7 in San Francisco, attracted nearly 19,000 prospects who came to view new

Dealers Call Directly To Hotline

As mentioned in last month's Dealer News, Technical Services is moving to North Star's additional facility adjacent to the headquarter building.

Because of this move, the corporate switchboard will no longer be able to transfer calls from North Star's main number to the Hotline extension. Therefore, effective May 3, 1982, the Hotline can only be reached by calling the numbers published in the Dealer Manual.

TechnicalTipsTechnicalTipsTech

Technical Tips is a monthly column designed to provide helpful hints and reminders for North Star Dealers. If you have additional technical questions, be sure to use the toll free number to call North Star's Authorized Dealer Hotline.

ADVANTAGE:

• The new North Star demo disk version 2.0.0 for the ADVANTAGE contains a screen dump to the NS-100 printer at 9600 baud.

• Release 1.1.0 of CP/M for the ADVANTAGE corrects the bug that caused the BDOS ERROR ON A: R/O when running CP/M applications.

• The video display control codes for the ADVANTAGE are not located in the ADVANTAGE technical manual. Instead, they are located on page 34 in the Graphics CP/M Manual (part #00482), page 6-5 in the latest revision of this manual (part #00482B) and page 2-20 in the Graphics/DOS Manual.

• The function keys for the ADVANTAGE can each output up to three different fixed codes. The codes are listed in appendix A of the technical manual. When hitting a function key, the programmer must look for the appropriate code in the CONSOLE IN routine, then jump to a routine to perform the desired function.

HORIZON®:

• Rev. B HRAM boards have the upper 8K selectable on 1K boundaries. The new Rev. E HRAM boards have the upper 8K selectable on 2K boundaries and also have the capability of bank switching these 2K segments. The revision level can be easily determined by whether the legend over switch 2 on the HRAM card is divided into 1K or 2K segments.

• CP/M release 1.1.0 for the HORIZON allows for the disk controller and a FPB located in memory from E800H to EFFFH. If HRAM memory is present and configured properly, the CP/M will be loaded above and below the disk controller. This results in a significant increase in the TPA.

• The recently released MDS-AD revision F of the MDS floppy disk controller does not require the user to modify the drive select line in the disk drive to add on a fourth drive. The drive select is now implemented on the pin 34 standard, and it is only necessary to hook up the drive with the proper drive select jumpered on the header at location 1E on the disk drive PC board.

New Distributor For North Star Named

A hearty welcome to Systems Distribution Group of Dallas, Texas, North Star's latest distributor. SDG will carry a complete line of North Star products, distributing to Texas, Oklahoma, Louisiana and Arkansas. A subsidiary of DMR, a custom software house also in Dallas, SDG is North Star's thirteenth distributor.

MicroPlan

North Star's Enhanced MicroPlan, a financial modeling package for handling sophisticated business financial needs with ease and efficiency, is full of improvements that make this version even simpler to use and more powerful than the standard MicroPlan.

Complete Documentation

With North Star's Enhanced MicroPlan, customers now receive completely rewritten documentation, containing more detailed tutorials and in-depth explanation of MicroPlan's functions, programs and formulas. North Star's new documentation has a completely changed structure, with an easy-to-read two column, typeset format, and features a complete overview of the package as a preface to the manual.

In addition, the new documentation includes easy-to-read screen displays and a new format for the tutorials, providing easier, clearer documentation. A separate reference card with every menu command and command number is also included, as well as overlay tabs for the ADVANTAGE function keys.

The program itself has also been greatly enhanced. Every menu has been redesigned to provide users with the most logical groups of commands at their fingertips. North Star has also rewritten the approximately 150 HELP commands, making MicroPlan easier to use and learn, avoiding the need to refer to menus or documentation frequently.

For those who own ADVANTAGEs, MicroPlan is even more simple. The function keys on the ADVANTAGE have been programmed to call up the 20 most used commands in the software package, making multiple key strokes unnecessary for certain commands.

In a nutshell, North Star's Enhanced MicroPlan offers users the following:

- improved documentation
- powerful menu structure
- more extensive on screen HELP commands
- function keys for the ADVANTAGE
- an easier installation procedure

WordStar

North Star now offers two word processing packages for end-users: NorthWord™, the easiest program to learn, and Enhanced WordStar, the most popular word processing program for microcomputers. And with the addition of Enhanced WordStar to North Star's application software list comes an important plus—increased performance for the North Star ADVANTAGE and HORIZON.

North Star offers the optional SpellStar™ spelling checker and MailMerge™ mailing list program, both of which operate with WordStar under CP/M. WordStar 3.0 with improved menus, Column Move and Horizontal Scrolling, and SpellStar 1.2 (which is several times faster than 1.0) are the latest versions available.

User-Friendly

On the North Star ADVANTAGE, Enhanced WordStar uses the numeric/cursor control pad for full cursor movement and scrolling, and the function keys for the 30 most common commands. (For confirmed WordStar users, all the original cursor and command strokes are also retained.) With our function key overlay, Enhanced WordStar is easier to learn and remember. And with a significant reduction in keystrokes, it's faster to use as well. Only North Star's version of Enhanced WordStar contains these user-friendly features.

Both the North Star ADVANTAGE and HORIZON can use the NS-3510 or NS-100 dot matrix printers with WordStar. And only under North Star Enhanced WordStar can the NS-100 perform all these functions:

- condensed print
- expanded print
- subscript and superscript
- several additional print modes

Documentation is thorough and easy to use. It includes the complete WordStar manual in a North Star three-ring binder, an exclusive North Star installation and enhancement guide, and the new WordStar Training Guide in flip-over easel format.

Exclusive Features

Now you can reach both CP/M (or TSS/C) users with Enhanced WordStar, and ASP (or TSS/A) users with NorthWord. And though you may have had other sources for WordStar in the past, only North Star offers Enhanced WordStar with these exclusive features:

For the North Star ADVANTAGE:

- single keystroke commands using function keys
- keyboard overlay for function keys
- full cursor control from numeric/cursor control pad
- preconfigured installation

For the North Star ADVANTAGE and HORIZON:

- driver for NS-100 printer (plus standard NS-3510 driver)
- improved documentation
- North Star quality control and hotline support

With North Star enhanced versions of both MicroPlan and Wordstar, you're now in the position to give your customers the ultimate: quality programs at their easiest-to-use best.

The Key To Success: Service

In the small North Dakota town of Devils Lake, where winters are fierce and people sparse (population 7,000), Bill Gerrells, Bill Light and Malcolm Bagne run a North Star dealership. And in a place where even Bill Gerrells admits most people wouldn't make their first choice to live, North Star computers are selling area-wide like firewood before a blizzard.

"We work hard to sell our computers," says Bill, founder of Gerrells, Light and Associates, Inc. "But it certainly amazes people that we sell any computers at all in such a place as Devils Lake, let alone a high-end, small business computer like the North Star."

But sell they do. As a matter of fact, even the neighboring town (population 2,400) has its share of North Star computers: five HORIZONs, one ADVANTAGE and one HD-18 system.

Bill, an electrical engineer who's worked with computers most of his life, originally started his business in retail electronics, when he moved to Devils Lake in 1976.

"I started carrying the North Star line five years ago." Bill remembers. "And eventually, I became a direct dealer, though selling in an area with sparse population made it more difficult than most."

Computers Most Profitable

As a result of the downturn in the economy, Bill discovered, surprisingly, that computers were the items in his store that were the most profitable to sell. Eventually, he got out of the electronic business, stocking solely North Star products and peripherals.

"When North Star tied together with Basic Software Group (BSG), I knew they were a winner," he recalls. "I've seen North Star mature to providing not only excellent hardware but good business software as well. They've put together a hardware and software package that is extremely

reliable, and easy for me to sell. After all, I'm in the business of selling computers, not writing programs for them."

Service Is The Key

Bill feels the key to Gerrells' success is establishing a program built around North Star hardware and North Star software, supported with good service.

"When we sell a North Star computer, we offer free labor for a year, as well as immediate temporary replacement parts," Bill explains. "We feel that's our key to

having such a highly successful dealership.

"You've got to remember one very important thing when selling North Star computers: you're selling to small businesses who depend on that computer to run their business. Once they have a computer, most find it impossible to run a business without it. If it happens to break down (which is very rare anyway), it's not good enough for the Dealer to offer to fix it in a week or even a day. That business needs immediate backup until their machine is repaired. And we provide this service to our customers free of charge. Of course if their computer must be repaired we'll charge them for the cost of the repair if it isn't covered by warranty, but we won't charge them for the use of replacement equipment while theirs is being

Owners Bill Light (left) and Bill Gerrells stand behind their hottest product: the North Star computer.

INTRODUCTORY NORTH STAR APPLICATION SOFTWARE PROGRAM

FOR

AUTHORIZED NORTH STAR DEALERS

CERTIFICATE AND ORDER FORM

ORDER FORM

DATE _____

PART #	DESCRIPTION	# SETS	PRICE
00966	Enhanced MicroPlan		$ 99
02087	Enhanced WordStar		$ 99
	TOTAL =	2	$198

To be eligible for this introductory offer I agree to maintain
for demonstration a North Star computer with the above listed
software on my business premises at all times. I have listed
the serial number of this system below or attached a copy of
the order placed with my North Star Distributor for a
demonstration system.

HORIZON Serial number _____

ADVANTAGE Serial number _____

I agree to abide by the terms of my Authorized North Star
Dealer Agreement.

_____
Dealer's Signature & Date

Company name, city & state:

_____

_____

RETURN TO:

North Star Computers, Inc.
14440 Catalina St.
San Leandro, CA 94577

ATTN: Sales Administration

fixed. It makes extremely good business sense."

Of course, Bill recognizes the risk of not having enough backup equipment to provide if a customer's computer needs service, as well as the danger of spending too much capital on backup equipment. "But the more we sell, the more we stock," Bill explains. "And the customers understand that we'll try our hardest to replace their equipment when it's being fixed. I don't think you can really get yourself in trouble if you're honest to your customers.

"Besides, this service costs next to nothing anyway, since North Star's equipment rarely breaks down."

Many Services Offered

But service means many things at Gerrells. And they offer many of them. "One employee, Mazie Loehr, is a bookkeeper, so she is very familiar with that aspect of the business. We offer, at a fee, an accounting service where we set up an accounting program for a business, using our North Star computer. Later, when a customer finally asks himself why he is paying Gerrells to do his books on our computer when he can buy himself a computer at a good price, we sell him a North Star, complete with his accounting books on it. Where else can anyone get such a deal?"

Gerrells' sales approach is straight forward. "We try hard, and we never tell a lie," he says. "This may sound hokey, but believe me, it works."

"We are now in the process of direct mailing a full-color brochure to all attorneys in the state," he explains. "On the front of the brochure is a photo of the staff of Gerrells standing behind a North Star computer. The headline reads: A computer system is only as good as the people who stand behind it."

Bill Gerrells and his associates have certainly proved that point.

NCC
continued from page 1

office automation technology offered by various exhibiting companies.

"The combination of the new booth, using an 'island' configuration, and professionally demonstrating North Star products as we did gave us more qualified leads for our Dealers than any other show we have participated in in the past," National Sales Manager Rhine Meyering reports.

After the National Computer Conference, North Star will exhibit at COMDEX in New Jersey June 28-30. If you're in the area for either of these trade shows, be sure to stop by the North Star booth.
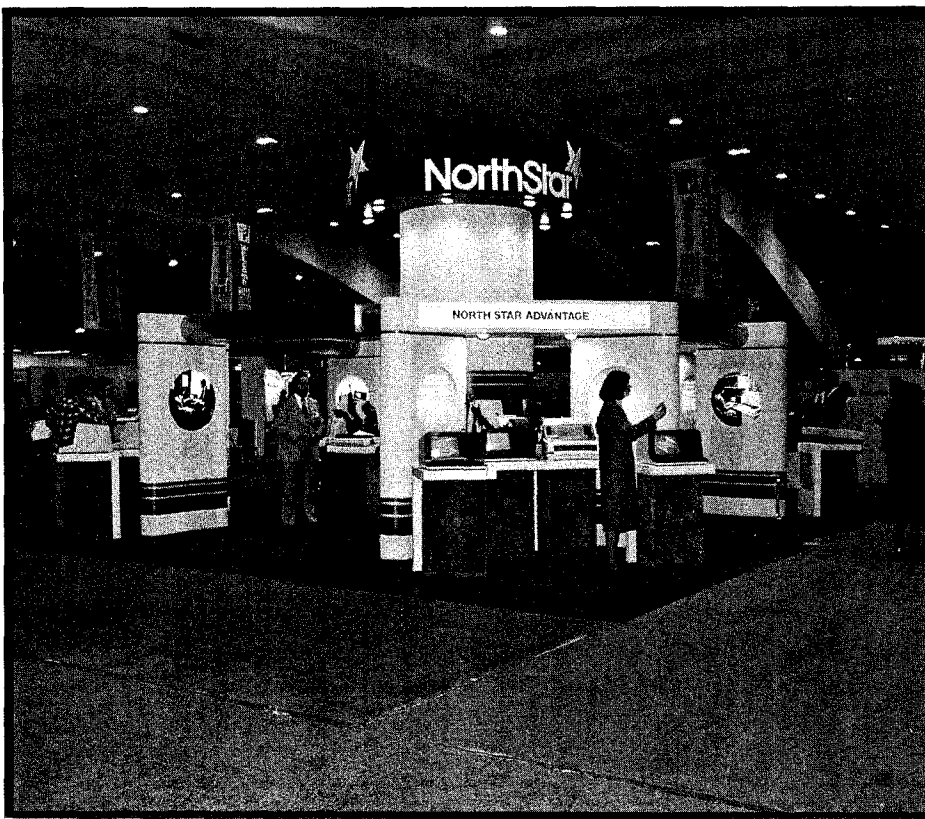
North Star's new trade show booth debuted at the Office Automation Conference in San Francisco last month. North Star will next exhibit at NCC.

A Reminder On Trademarking

Because of potential trademarking problems, all North Star Authorized Dealers and Distributors are asked to carefully observe the following name-use specifications in all their advertising.

• The name ADVANTAGE must always be preceded by the words North Star (i.e., North Star ADVANTAGE). The word ADVANTAGE must be in all capitals, and is not to be trademarked (™).

• The name HORIZON® is a registered trade mark, and must be followed by a circled "R" (®). The word HORIZON must be in all capitals.

P.O.P. Display And Neon Lights Available

A flashy point-of-purchase display for the North Star ADVANTAGE will soon be available to all North Star Authorized Dealers, according to John Corser, marketing communications manager.
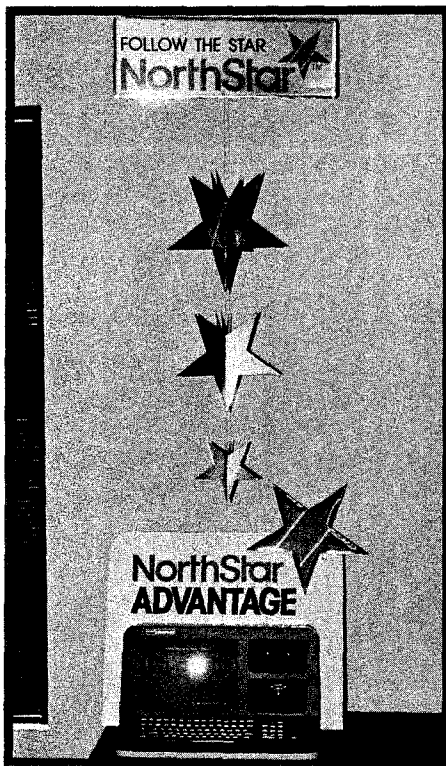
The display features a wrap-around display piece for the ADVANTAGE, laminated with a silver finish and silk screened in blue and white; a mobile featuring three-dimensional stars in the laminated blue and silver; an ad reprint easel board; a countertop literature holder and a silver window poster saying "We have the North Star ADVANTAGE."

This new display is scheduled for delivery to North Star in late May. Watch the May Dealer News for further availability and delivery information.

In addition, North Star is considering offering neon lighted North Star signs to Dealers and Distributors for their operations. A prototype sign, shown on this page, has been made, and North Star is in the process of evaluating the effectiveness of such a sign. The lights can be hung or placed on a flat surface for display.

We need your feedback. Would you be interested in such a sign for your North Star dealership? Contact Marketing Communications with your ideas on the subject.

Dealer Training Schedule

HORIZON and ADVANTAGE Maintenance   May 11-14

ADVANTAGE Orientation   May 19-21

Application Software   May 25-28

Watch your mail in early May for the new June-July Dealer training schedule and enrollment form.

News Bits

• Connie Ducey has joined Marketing as coordinator, Dealer-Distributor sales (west). Connie will be responsible for Authorized Dealers and Distributors in the western half of North America, with Janet Shropshire responsible for the eastern half of North America.

Connie Ducey

Ray Detmer

• Please welcome Ray Detmer, who has joined Technical Services as product service manager. Ray comes to North Star from BTI Computer Systems, where he performed a similar function. In addition, several other changes have taken place in Technical Services. Stephen Kanzler recently joined North Star as technical support supervisor, and three new technical support specialists, Frank Kohzad, Susan Welch and Ron Swinhart, have been hired. With the expanded staff and longer Hotline hours (8:30 a.m. to 3:30 p.m. Pacific Standard Time), North Star maintains its commitment to superior support for its Authorized Dealers and Distributors.

NorthStar DealerNews

North Star Announces New 16-Bit North Star ADVANTAGE 8/16 System

North Star recently announced the introduction of a unique new microcomputer system, the North Star ADVANTAGE 8/16, that includes both a 16-bit Intel 8088 microprocessor and an 8-bit Z80A® microprocessor. This new system combines the inherent benefits of the popular 8-bit, CP/M® compatible North Star ADVANTAGE with the increased power, larger memory capacity and MSDOS compatibility of the 16-bit 8088. A low-cost 8/16 upgrade kit to the North Star ADVANTAGE was also announced.

The North Star ADVANTAGE 8/16 supports the operating systems of the standard North Star ADVAN-TAGE, which are Graphics CP/M, GDOS/GBASIC, and the proprietary North Star ASP, plus 16-bit operating systems. For users, this provides a migration path from an extensive library of 8-bit application software to 16-bit application software programs as they become available and as larger CPU memory capacities are needed.

"This 'best of both worlds' combination processing capability

NorthNet: Local Area Network Announced by North Star

North Star has announced a low-cost local area network, called NorthNet™, that provides a multi-user upgrade path for the company's growing installed base of North Star ADVANTAGE desktop microcomputers.
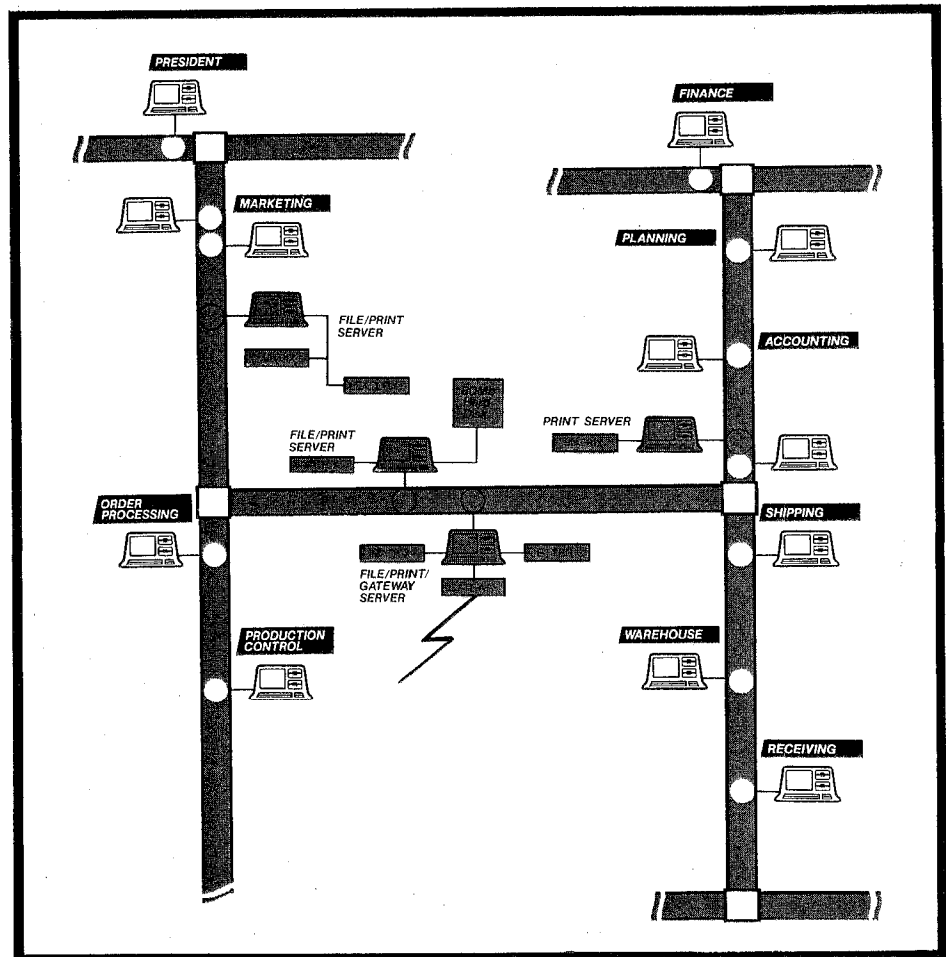
NorthNet: Local Area Network Announced by North Star

With NorthNet, users of stand-alone North Star ADVANTAGE systems can communicate with one another, access large central files, and expand their output resources through the shared use of high-cost peripherals, such as high-speed printers and plotters, and communications resources.

Controlled by a proprietary CP/M® compatible operating system, NorthNet also enables users of North Star ADVANTAGE systems to use North Star's familiar business and accounting applications programs. These include Enhanced WordStar™, Enhanced MicroPlan™, dBASE II™, as well as programs for electronic mail and calendar management, electronic filing and countless other applications programs from the CP/M world. A major advantage of this feature is that these applications programs are highly integrated and share common, user-friendly interfaces.

For those utilizing NorthNet workstations for applications development, standard languages such as BASIC, COBOL, Pascal and FORTRAN are readily available in combination with a host of editors, debuggers and file maintenance utilities.

NorthNet, the first local area network capable of linking the North Star ADVANTAGE microcomputers and the first network to provide such an extensive array of CP/M-based applications software, graphics and development tools, also provides growth potential, price/performance and reliability benefits to North Star ADVANTAGE users and prospects.

Third Major User Upgrade From North Star in Nine Months

Last September, North Star announced that its standalone microcomputer family, the HORIZON, had been enhanced to provide timesharing multi-user capabilities for its proprietary applications software package or for general CP/M compatible applications. Simultaneously, the company introduced the integrated North Star ADVANTAGE graphics microcomputer. Both systems significantly reduced the cost per user of both single and multi-user business applications.

With NorthNet, users can now take advantage of the third upgrade path and further reduce per-user costs by linking up to a total of 64 North Star ADVANTAGE workstations, file servers, printer servers or gateway servers in a local network for less than $400 per network connection. North Star will also provide a gateway enabling the Multi-User HORIZON to access the NorthNet network.

"This means that North Star users and prospects have a greater choice than ever before," said North Star President Charles Grant. "At a time when users are less certain than ever about their ultimate computing needs, North Star is offering competitive desktop computers, a one-to-five user HORIZON business system, and a unique network product which can link from two to 64 North Star ADVANTAGE microcomputers."

Economic Benefits of NorthNet's Shared Resources

In addition to the obvious communications benefits of networking among microcomputers, NorthNet provides access for all workstations to large central files and high-cost peripherals. Before NorthNet, owners of individual standalone systems in general could not justify the cost of making these resources available.

"Most standalone microcomputers are limited to local floppy disk or hard disk storage and few users of a standalone can justify the use of

$10,000 worth of mass storage or a $5,000 line printer," said Elliot Wassarman, vice president of marketing. "NorthNet changes all that. First, each North Star ADVANTAGE workstation can have either integrated dual floppy disk drives or a single floppy drive with a Winchester hard disk for private storage. Next, each workstation has access to a number of file servers, each providing up to 80Mb of shared hard disk. Third, it is much easier to justify an expensive, high-speed or high-quality printer or other peripheral on the basis that it is shared among a large number of workstations."

Increased Reliability Through the Elimination of a Central CPU

Unlike other local area networks configured in a star configuration where a central "hub" microcomputer handles all network message traffic and control functions, each North Star ADVANTAGE workstation on the NorthNet network operates independently, always enjoying ready access to the LAN even if one or more workstations fail.

Planned NorthNet Enhancements

As part of the comprehensive NorthNet strategy, North Star will add a number of communications interfaces and gateways to enable NorthNet to access more and more devices and other networks. Gateways to public communications services such as TWX and Telex, to public information services such as Teletex, and to other microcomputers, minicomputers, and mainframes will be added. Connectibility to the HORIZON will also be provided. Both ASP and MSDOS will be supported on the network.

NorthNet shipments will begin in the fourth quarter of 1982.

North Star
ADVANTAGE 8/16

represents a major evolutionary step forward for North Star, and a natural extension of the North Star ADVANTAGE product family," North Star President Charles Grant explained.

"Our many users who are eager to enter the 16-bit arena may now do so without sacrificing their previous investment," Grant said. "Our users who are satisfied today with the variety of 8-bit applications capabilities need not pay for processing power until they need it. And those users who see an immediate need for both 8- and 16-bit levels of processing may do so now without buying two systems; or worse, living with one inflexible system which leaves them with insufficient application software."

The suggested list price for the 8/16 upgrade kit is $499, which would bring the price of the North Star ADVANTAGE 8/16 system with two integrated quad diskettes to just $4,099 and the North Star ADVANTAGE 8/16 with an integrated 5 Mb hard disk and one quad diskette to $5,499. MSDOS, the operating system for the 8/16, will retail for $149.

Deliveries of the North Star ADVANTAGE 8/16 will begin September 1982.

Major Price Reductions Announced by North Star

North Star has announced a series of very competitive systems and software price cuts effective June 1 that range across the company's entire line of Multi-User HORIZON series and standalone North Star ADVANTAGE microcomputer systems.

"Having doubled our production volumes within the last six months to meet an increasing demand for HORIZON and North Star ADVANTAGE systems worldwide, our internal economies of scale have improved dramatically," explained Elliot Wassarman, vice president of marketing at North Star. "As a result," he added, "our increased volume has produced component price reductions from our suppliers, enabling us to pass along these savings to users."

The most significant price reduction occurred in the North Star ADVANTAGE line. The price of a North Star ADVANTAGE with an integrated floppy and an integrated 5¼ inch 5 Mb hard disk was reduced by 24 percent from $6,599 to $4,999. The North Star ADVANTAGE with dual floppy drives was reduced from $3,999 to $3,599. The basic HORIZON series system with a floppy disk and a 5¼ inch 5 Mb hard disk has been lowered by 17 percent from $5,999 to $4,999.

In addition, North Star ADVANTAGE GDOS and G CP/M operating systems software was reduced from $299 to $149. The HORIZON multi-user TSS/A and TSS/C operating systems software was reduced from $499 to $349. The HORIZON 5 Mb Hard Disk Upgrade was reduced from $2,999 to $2,399.

New suggested retail price lists (domestic), incorporating these June 1 reductions have been mailed to North Star's dealers and distributors.

Technical Tips

- A new version of TSS/A, revision 2.0.0, has been released and the old version (1.0.0) is now in the process of being updated. (See page 5). Until you receive your update, you can use 1.0.0 and HDOS 2.0.0 in the following manner:

When loading TSS/A revision 1.0.0 and using HDOS 2.0.0, be sure to run: GO REDIRECT and select the OLD format. (This will not hinder the running of other programs under TSS/C).

- There are three possible paths for upgrading HORIZON disk systems:

—single sided, single density to single sided, double density. These HORIZONS were shipped with Shugart single density (SA-400) drives. To upgrade to double density requires a new MDS controller (P/N 70809) and upgrading drives by changing the servo motor controller board. (P/N 82027 or Drive Upgrade 49003. This is the small PC at the rear of the drive.)
—single sided, single density to quad density. This requires replacing the single sided drives with quad capacity drives (P/N 46005) and replacing the single density MDC controller with a double density MDS controller (P/N 70809).
—single sided, double density to quad density. This requires the replacement of the single sided drives with quad capacity drives (P/N 46005). The controller does not need to be changed.

OrderEntry and Invoicing Available for Shipment

North Star's OrderEntry and Invoicing package, available for immediate shipment, provides the user with powerful order management and invoicing. It integrates with InventoryControl and Accounts-Receivable to provide wholesale and retail distribution companies powerful processing capabilities. Both the InventoryControl and Accounts-Receivable functions integrate with the GeneralLedger under North Star's ASP operating environment.

The package is available in Floppy Disk Version as well as Single or Multi-user Hard Disk Versions. Part numbers and suggested list prices are:

Item	Part #	Suggested List Price
OrderEntry Horizon Q	00491	$499
OrderEntry HD	00180	$499
OrderEntry Advantage Q	00961	$499
OrderEntry Documentation	00944	$75

Some of the features of the OrderEntry and Invoicing package are:

- Order processing—add, recall, change or cancel sales orders; print order confirmations or packing slips; add, modify or cancel standing orders.
- Invoice processing—recall orders for invoicing; print invoices or an invoice journal.
- Credit processing—enter returns or credit memos; print credit memos or a credit memo journal.
- Ship-to maintenance—add, modify or delete ship-to addresses.
- Inquiries—handle customer account or inventory item inquiries.
- Maintain different types of orders —standing orders, future orders, backorders, active orders, orders on hold.
- Handles up to five discount rates which are applied to the item's base selling price according to category or status of the customer.

Professional Radio Commercials Available to Dealers

Two professionally produced commercials for use in local radio advertising are now available from North Star free of charge. Both are 60-second spots on cassette with 50 seconds of copy and 10 seconds reserved for local identification. For use in conjunction with North Star's Cooperative Advertising Program or in independent advertising. Sure bets to stimulate your sales traffic. Send your written request today:

Marketing Communications
North Star Computers, Inc.
14440 Catalina Street
San Leandro, CA 94577

dBASE II Added To CP/M Family

To complement previously announced application packages and languages for North Star supported CP/M single or multi-user systems, North Star is adding the industry standard dBASE II to its growing family of fully supported CP/M products.

For the beginning user with minimum programming experience, or for the sophisticated programmer with extensive data manipulation needs, dBASE II is an excellent selection. Using the latest tech-

niques in data storage and retrieval (called Relational Data Base), it exceeds even the most competitive packages in the size and complexity of the data it can support.
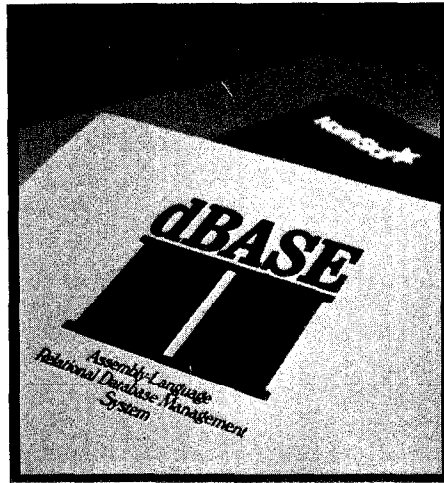
dBASE II supports a high level language that uses a structured, English-like syntax, and includes

excellent error messages, interactive debug facilities, arithmetic and logic operations, and standard language constructs, such as IF-THEN-ELSE and WHILE-DO loops. The language also includes support for full screen, video control, report formatting and an interface to standard CP/M files.

Typical applications developed using dBASE II include Payroll and Accounting, Personnel, and Interactive Data Entry/Edit Menu Systems. dBASE II is simple to install and can be set to run on any North Star computer system in just minutes.

Documentation includes a user guide which features an excellent command reference section. Numerous examples are provided that illustrate the use of most of the major dBASE II commands.

dBASE II from North Star will be available for shipment this Fall at the suggested list price of $700.

Barbara Newdorf—New District Sales Manager

Barbara Newdorf has joined North Star as the **District Sales Manager** for the new Southwest District. This district includes Southern California, Arizona, and Clark County in Nevada. Barbara will be developing new accounts and supporting growth in existing accounts throughout her district.

Before joining North Star, Barbara worked as District Sales Manager for Intertec in Southern California and for Texas Instruments as Distributor Sales Manager for the Southwest.

Barbara has a B.S. degree in Computer Sciences from the Uni-

versity of California—Irvine and 11 years of experience in the computer industry.

With Barbara's arrival, Bob Hornbeck will be able to concentrate his efforts on the Northwest District, which includes Northern California, Oregon, Washington, Nevada, Utah, Montana, Idaho and Western Canada.

TSS/A 2.0.0 Released

TSS/A 2.0.0 is an upgraded release of the original TSS/A product. It provides support for 5 and 18 megabyte hard disk systems. Release 2.0.0 also corrects bugs which have been reported in the spooler and the disk directory.

The part number and suggested list price for the new release are:

TSS/A   00153 $499

Shipment of this product is currently underway and copies of TSS/A 2.0.0 will be made available free of charge to all current users of TSS/A 1.0.0. Update packages will be shipped to dealers and distributors based on the quantities of TSS/A 1.0.0's originally shipped. North Star will continue to support TSS/A 1.0.0 until December 1982.

To Serve You Better, North Star Expands Again

Bigger and Better Training Center Offers Summer Schedule

In response to the need for more spacious dealer training and support facilities, North Star has added 31,000 square feet of space to its head-quarters property.
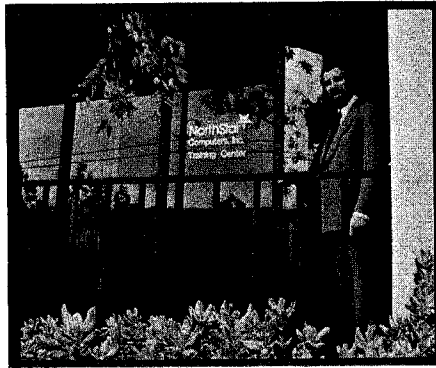
Dennis Lunder, opens North Star's new Dealer Training Center.

North Star's Technical Services Department, which provides tele-phone support and repair support to dealers, distributors and OEM's, and the dealer training classroom are now located at **14310 Catalina Street in San Leandro, California.**

"More conducive to learning" are the key words to describe the new dealer training facility. Private access for dealers, a large projec-tion screen and other amenities all combine to create an environment that will be a pleasant surprise to dealers attending future training classes.

Dealer Technical Support Number:

(415) 357-6990

Reviewing the floor plan for the Technical Services Department are: Ray Detmer (left), Al Peterson, and Steve Kanzler.

Schedule of Summer Courses

The following classes will be held in North Star's new Dealer Training facility.

July 20-23	TWThF	Application Software
July 27-29	TWTh	North Star ADVANTAGE Orientation
August 3-6	TWTh	HORIZON and North Star ADVANTAGE Maintenance
August 17-19	TWTh	Sales & Marketing Strategies
August 24-27	TWThF	Application Software

The first enrollment from your company for each of these courses will be free of charge. Tuition for additional enrollments varies with the course. North Star's Dealer Training Department, at (415) 357-8500 X582, will be happy to send you enrollment forms and provide information on tutition costs.

North Star introduces

NorthNet™
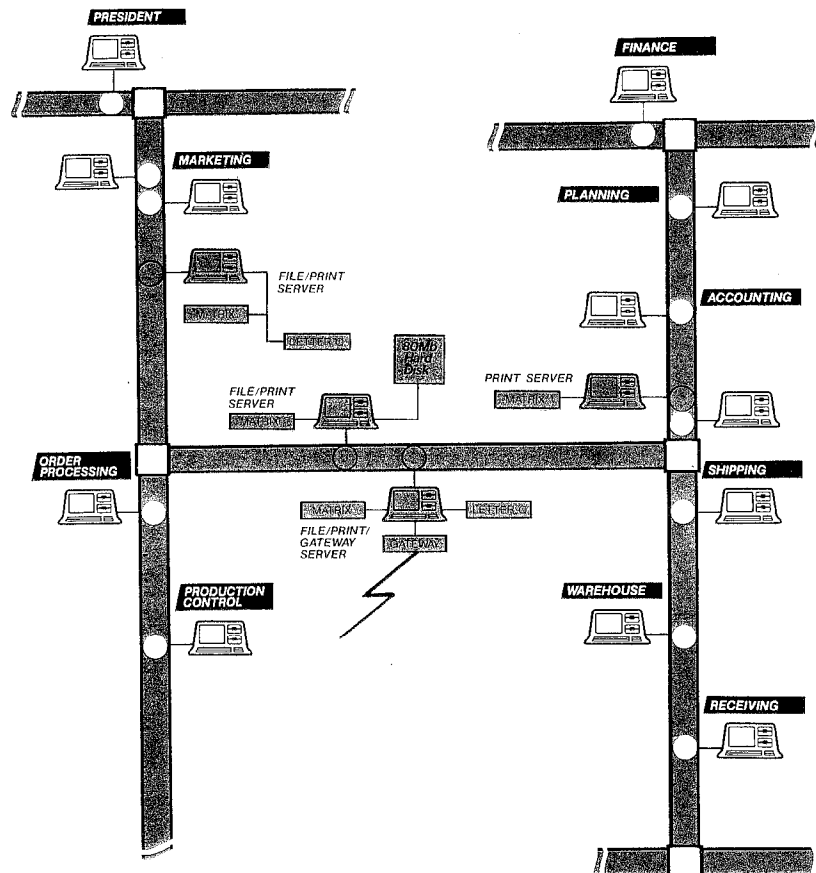
at NCC 1982 Booth 7523

Give yourself a North Star ADVANTAGE . . .

. . . then extend your business advantages with NorthNet.

NorthNet is a low cost proprietary local area network linking existing North Star ADVANTAGES by simply plugging one or two inexpensive boards into each North Star ADVANTAGE, converting it into a NorthNet workstation or workstation/server.

NorthNet

PRESIDENT
- Mail
- Calendar
- Filing
- Financial Plan

FINANCE
- Mail
- Financial Plan
- Filing
- Calendar
- Gen. Ledger

MARKETING
- WP
- Financial Plan
- Mail
- Calendar
- Filing

- Sales Analysis
- Inventory
- Financial Plan
- Mail
- Filing

PLANNING
- Mail
- Financial Plan
- WP

FILE/PRINT
SERVER

MATRIX

LETTER Q

80Mb
Hard
Disk

ACCOUNTING
- Invoicing
- Acct. Rec'ble
- Acct. Pay'ble
- Gen. Ledger
- Payroll
- Mail

FILE/PRINT
SERVER

MATRIX

PRINT SERVER

MATRIX

**ORDER
PROCESSING**

- Order Entry
- Accts. Rec'ble
- Filing
- Mail

MATRIX

LETTER Q

FILE/PRINT/
GATEWAY
SERVER

GATEWAY

SHIPPING
- Shipping
- Inventory Control
- Filing
- Mail

**PRODUCTION
CONTROL**

- Financial Plan
- Inventory
- WP
- Filing
- Mail

WAREHOUSE
- Inventory
- Filing
- Mail

RECEIVING
- Receiving
- Inventory Control
- Filing
- Mail

NorthNet

Whether you have two or twenty, extend your standalone North Star ADVANTAGE with the benefits of multi-user operation:

★ Shared files between multiple users
★ Shared high quality printers/plotters
★ Shared gateways to:
  - Communications services such as TWX, Telex
  - Remote networks or dissimilar networks (Ethernet, etc.)
  - Async or Bisync Serial devices
  - 2780/3780 Bisync Serial communication with local or remote computers.
  - HPIB (IEEE 488) devices

Low Cost

Bring the low cost-per-user benefits of a multi-user shared resource system together with the North Star ADVANTAGE, a powerful graphics desktop computer, and its broad array of personal productivity enhancing and business applications software.

Personal Applications

Each person's North Star ADVANTAGE with the CP/M® based network operating system can increase his or her productivity with integrated user friendly applications requiring no programming or computer knowledge.

★ Word Processing
★ Financial Planning
★ Business Graphics
★ Electronic Mail
★ Electronic Filing
★ Future applications like Electronic Calendar

Business Applications

Each North Star ADVANTAGE can participate in the business data processing system as well:

★ Accounts Receivable
★ Accounts Payable
★ General Ledger
★ Payroll
★ Order Entry
★ Shipping
★ Receiving
★ Inventory Control
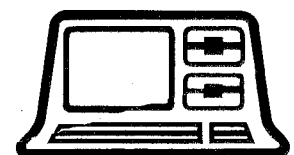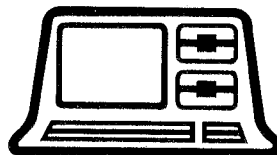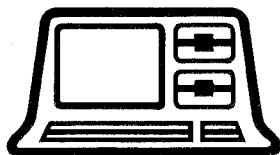
Illustration of Benefits

The benefits of a NorthNet local area network as applied in a typical business are demonstrated by the illustration on the facing page.

Distributed Computing

Powerful graphics desktop North Star ADVANTAGE computers can be located in every department right on the user's desk where each computer becomes a personal workstation.

Multiple Functions

Each workstation can perform the wide variety of personal applications (Word Processing, Electronic Mail) and business applications (Payroll, General Ledger, etc.) required by the daily activities of the user.

Each workstation can operate off the network on its own software as a standalone computer without disturbing the rest of the network.

Shared Resources

The workstations shown in color also control one or more shared resources (e.g. shared files, shared printers or shared gateways). These special workstations are called servers since they provide their resources to all requesting workstations. By this means, a relatively low investment in mass storage and printers is spread across all the workstations.

Flexibility

The unique NorthNet branching feature enables a far simpler cable installation in buildings with multiple floors or in buildings that are spread into several wings.

Reliability

Since there is no central controller of the network and since the failure of any workstation or server will not affect the operation of the rest of the network, the system is far more reliable than a single CPU timeshared system or a local network configured in a "star" configuration. Likewise, distributing several printers, disks and servers through the network provides redundancy that further increases reliability.

NorthNet consists of three basic elements:

★ *Workstations*
★ *Servers*
★ *Cable*

Workstations

Workstations on the North Star proprietary network are the 8-bit North Star ADVANTAGE or the combined 8 and 16-bit North Star ADVANTAGE 8/16 microcomputers. Workstations can have:

★ *Dual 5¼" floppy disks or*
★ *One 5¼" floppy disk and one 5¼" (5Mb) hard disk for private (not shared) storage.*

Workstations connect to the network through a WS board that plugs into the North Star ADVANTAGE and a 15-foot access cable that taps into the Network Cable. A workstation can also have a private (not shared) printer.

Servers

Any workstation can be converted into a workstation and server by addition of a server board and the appropriate mass storage device(s), printer(s) or gateway interface(s).

Cable

The cable used in the network is low cost, easily installed twisted pair. Additional attributes are:

★ *Maximum accessible cable (through branching)— 10,000 ft.*
★ *Maximum length end-to-end—4,000 ft.*
★ *Maximum length between branching repeaters— 1,000 ft.*
★ *Maximum repeaters permitted from one end to the other—4*
★ *Network Bus Architecture—CSMA/PA (Carrier Sense Multiple Access/Positive Acknowledge)*
★ *Transmission Rate—1M bit/sec*

In addition to NorthNet and the North Star ADVANTAGE...

... North Star is showing the North Star ADVANTAGE 8/16 and demonstrating the Multi-User HORIZON® TSS/A and TSS/C systems as shown here in the booth map.

Multi-User HORIZON—TSS/C, TSS/A

★ *TSS/A—North Star's business applications on the HORIZON computer supporting up to five users, each operating the same or different programs.*
★ *TSS/C—Industry standard CP/M compatible applications on the HORIZON supporting up to five users, each operating the same or different programs.*

New North Star ADVANTAGE 8/16

★ *Single user business applications or personal applications in either 8-bit CP/M or 16-bit MS/DOS™.*
★ *Business Graphics package and Graphics CP/M or MS/DOS supersets for generating bar charts, pie charts and complex figures.*
★ *The power, addressability and MS/DOS compatibility of the 16 bit 8088 microprocessor combined with the popular Z80A®.*
★ *Purchase now as a 16 bit system or as an 8 bit North Star ADVANTAGE today and simply upgrade to 16 bits when you need the extra power and software.*
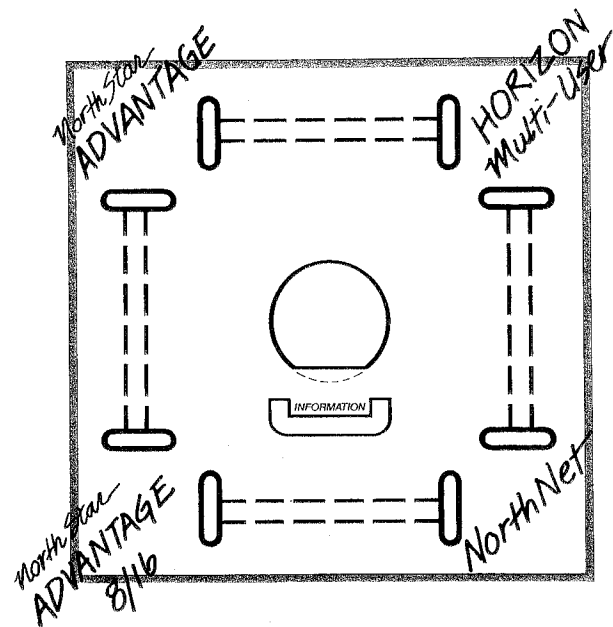
NorthStar™

North Star Computers, Inc., 14440 Catalina St., San Leandro, CA 94577

North Star Maintenance Service Options Expanded

Two new options are now available under North Star's national third party maintenance program. In addition to the previously announced MAI/Sorbus ON-SITE service plan, Sorbus will now offer carry-in repair for North Star systems and maintenance support for peripherals commonly used with the North Star ADVANTAGE and HORIZON®.

• The new carry-in repair option is a lower cost, convenient alternative to ON-SITE service. Under this new option you can send in or carry in your repairs to 13 depot sites, strategically located throughout the country, rather than paying for personalized service on your premises. In most cases a Sorbus depot is located within overnight UPS shipping distance in the Continental United States.

Two types of payment plans, both administered directly by Sorbus, are also included as part of this new carry-in repair service, according to Al Peterson, Manager of Technical Services. For those users who wish to budget their service costs, an Annual Depot Service Agreement is available which covers any necessary repairs and includes shipping costs back to the customer. Those customers who prefer not to purchase a service agreement may contact the depot nearest them to receive a return authorization for a specific repair problem. After receiving the equipment, the Sorbus depot will repair it and return it to the customer. The charge for this type of repair is a flat rate based on the required repair.

SORBUS DEPOT LOCATIONS:

Location	State	Phone
Anaheim (Orange County)	CA	(714) 991-9500
Burbank (Los Angeles)	CA	(213) 843-4441
San Leandro (Oakland/S.F.)	CA	(415) 483-9862
Aurora (Denver)	CO	(303) 360-0932
Atlanta	GA	(404) 458-0620
Bensenville (Chicago)	IL	(312) 595-7180
Livonia (Detroit)	MI	(313) 425-7530
Maryland Heights (St. Louis)	MO	(314) 434-6010
Hicksville (Long Island)	NY	(516) 681-8176
King of Prussia (Philadelphia)	PA	(215) 337-3822
Dallas	TX	(214) 263-1986
Fairfax (Washington DC)		(703) 385-3201

North Star ADVANTAGE with 5Mb Hard Disk— A Buy That's Hard To Beat

Add a hard disk to any micro-computer and you increase its speed and storage capacity. But add a 5Mb hard disk to the North Star ADVANTAGE and you have a cost/performance value that's tough to beat.

Exciting? Compare retail price per kilobyte of disk storage capacity:

The IBM PC, with 320 kilobytes of dual floppy disk storage (and no hard disk capacity), weighs in at a heavy $11.17/kilobyte of storage.

The Apple III, with 5.14 megabytes of storage on a single floppy disk and a 5Mb hard disk, comes in at a more reasonable $1.55/kilobyte of storage.

But the North Star ADVANTAGE with a 360 kilobyte capacity floppy and an integrated 5Mb hard disk, is the real winner with an incredible price/performance value of **just 93 cents/kilobyte. That's 40% below Apple, and IBM isn't even in the race.**

Add this to other important features of the North Star ADVANTAGE: a graphics software package provided at no extra cost, national on-site service contracts, and CP/M

Now, A Data Base Manager For ASP Users
InfoManager II Released by North Star

InfoManager II™, which offers significant improvements over the original InfoManager I, is now available from North Star for the same low price of $399. All orders placed for InfoManager I have been automatically upgraded to InfoManager II. In addition, an upgrade package will be available through January 1983 for $100 to current users of InfoManager I.

(Note to Dealers and Distributors: Your InfoManager I inventory may be upgraded by contacting Sales Administration and returning your InfoManager I copies.)

Among the most significant features of the ASP and TSS/A compatible data base package are its ability to recognize seven different data types, to index groups of records according to 10 keys, to work with groups of records, and to print user friendly reports on both the screen and paper. InfoManager II also features the Soundex key, which allows a double check of problem names according to their sound as well as their spelling. A special calculator feature allows the user to perform interactive mathematical calculations on fields in a record.

Within InfoManager II, the user can create particular groups of records from his data file, arrange them in any desired order, sort or delete the records, and utilize them to print letters, labels or reports.

As an integral feature of Info-Manager II, a package called Info-Change allows the manipulation of the data base's structure and contents. InfoChange can be used to update InfoManager I lists to the InfoManager II data file format. It also allows the user to add or delete keys and data file fields, to change the length of the data file field, to change the data file field types, to change the number of records in a data file, to merge two data files, to set a field to a particular value without changing anything else in the file, and to allocate a new data file at initialization.

Additionally, InfoManager II allows user-specified titles and headings, any number of lines to be printed per record, and up to 20 columns of information per record. Columns may be fields or arithmetic calculations and can generate totals, running page totals and grand totals. Averages can also be computed using InfoManager II.

To run InfoManager II on a multi-user system, the new version of TSS/A—2.0.0—must be used.

North Star to Build European Base in Ireland

North Star announced last month that it will establish manufacturing, marketing support and product development operations at Cork in the Republic of Ireland. The company will invest approximately $10 million in a new 100,000 square foot factory to be built at the Killbarry Industrial Park, near the southern city of Cork. Operations will begin soon in an interim 40,000 square foot facility. When the permanent facility is available, it will eventually employ 300 people.

"European business is very important to North Star, and our presence in Ireland can reduce product cost based on local manufacture, and provide opportunities for local customer support and for new product development based on European needs," explained North Star's President Charles Grant.

Left to right, Hugh Coveney, Lord Mayor of Cork, Charles Grant, President, North Star Computers, Inc., (receiving keys to North Star's building), Dennis McCarthy, Irish Development Authority, Vivian O'Callaghan, Chairman of Cork County Council, and Bruce Mackay, Vice President, Operations, North Star Computers, Inc.

"Within Europe, Ireland was selected as our new location for many reasons, including the language compatibility, financial incentives, and because recent electronics ventures there by U.S. companies have been very successful," Grant said. "Also, we have been very pleased with the sincere efforts of the Irish to work with us in making our project successful."

The new facility will produce the North Star ADVANTAGE line of high-performance desktop microcomputers for the Western European market. It will also include a research and development group which will develop a full range of software for European use. The remainder of the overseas market and the domestic market will be supplied by North Star's San Leandro facility.

Now's the Time to Check Out Time

The latest installment of North Star's new advertising campaign made its debut in the July 26th issue of Time Magazine. The ad will now be appearing in the full run of the newsweekly, which has a circulation of 4.2 million—an increase of more than 50% in the circulation of our ad.

Hardware News

- **64K RAM Expansion Board Announced for North Star's ADVANTAGE 8/16**

  Now up to 256K of RAM can be added to the North Star ADVANTAGE 8/16, giving the 8088 processor increased storage and flexibility and faster sorting capabilities. A 64K RAM Expansion Board for the 8/16, priced at $349, will be available simultaneously with the release of the North Star ADVANTAGE 8/16 upgrade this fall. Since the 8/16 already includes 64K of RAM, up to three of these boards can be added. Your comprehensive dealer/distributor price list shows the 64K RAM Expansion Board as Part No. 02335, but it does not yet appear on the small retail price list.

- **North Star ADVANTAGE 8/16 Upgraded to Run at 8 Mhz!**

  The North Star ADVANTAGE 8/16 8088 processor will run at 8 Mhz when it is released this year, not at the originally announced 5 Mhz. This enhancement significantly increases the 8/16's competitive edge over the IBM personal computer, which runs at 5 Mhz. The Z80A® mode of the North Star ADVANTAGE 8/16 will continue to run at 4 Mhz.

Software News

- **HDSO Now Being Shipped**

  North Star is now shipping its Hard Disk System Operation for the North Star ADVANTAGE (HDSO/ADV) that allows the ASP-compatible NorthWord, InfoManager II, ACCPAC™ and PROPAC applications packages to run on the 5Mb Hard Disk version of the microcomputer. The price for HDSO/ADV is $149.

- **Pricing Note**

  The June 1 retail price list quotes the suggested price of Graphics MSDOS for the ADVANTAGE 8/16 as $149. This package now includes CP/M® and is priced at $249.

- **MicroPlan/WordStar Table Merge—A Capability You Should Try**

  MicroPlan™ reports can be saved and inserted into text produced by most of CP/M® compatible word processing packages, including Word-Star™, by using command 108, "Save Report".

  In addition, through the word processing editor it is possible to enhance the reports or spool reports to printers. The saved reports are Carriage-Return-Delimited ASCII CP/M files. For example, in WordStar, a report file saved in MicroPlan can be inserted by using the READ FILE command into the current document at the cursor position. The data is available for editing, printing, etc., through normal WordStar commands.

5Mb Hard Disk

compatibility in addition to a wide variety of proprietary business application software.

Call North Star today to stock up on the incredible Hard Disk North Star ADVANTAGE. Because when you tell your customers about all this, they'll know they can't beat it for just $4,999.

Maintenance Service

• In order to fully support North Star's complete product line, Sorbus will now also provide maintenance on the following peripheral products:
> CRT's
>> Hazeltine 1410, 1420
>> Soroc 120
>> Televideo 920, 950
>> Visual Technology 100, 200, 400
> Printers
>> North Star NS 100, NS 3510
>> Epson MX 100, MX 80
>> NEC 5510
>> Texas Instruments 810

More peripherals will be added in the future, according to Peterson. "Dealers should definitely contact Sorbus if the service need exists for products not listed," he advised.

For additional details, contact the nearest Sorbus depot or call Sorbus toll-free at (800) 345-1262 (in Pennsylvania call (215) 296-6000) and ask for Account Administration.

The number of metropolitan areas covered by **North Star's ON-SITE Service program was expanded last month to a total of 29.** The metropolitan areas in which users can now obtain ON-SITE service are:
> Atlanta, GA; Boston, MA; Buffalo, NY; Chicago, IL; Cleveland, OH; Clifton, NJ; Dallas, TX; Denver, CO; Detroit, MI; Houston, TX; Kansas City, MO; Long Island, NY; Los Angeles, CA; Memphis, TN; Miami, FL; Milwaukee, WI; Minneapolis, MN; New Orleans, LA; New York, NY; Oklahoma City, OK; Orange County, CA; Philadelphia, PA; Phoenix, AZ; Pittsburgh, PA; San Diego, CA; San Francisco, CA; St. Louis, MO; Seattle, WA; and Washington, DC.

Technical Tips

• The multi-user version of InfoManager II requires the TSS/A 2.0.0 operating system.

• The "PROPAC Update Disk for TSS/A 1.0.0" must be loaded onto the multi-user system in order to run PROPAC on TSS/A 1.0.0. If you have TSS/A 2.0.0 then disregard this notice.

• North Star system software for the North Star ADVANTAGE computer assumes that any serial printer connected is running at 9600 baud. CPMGEN allows you to modify the printer baud rate for CP/M applications. SYSGEN allows you to modify the printer baud rate for GDOS, GHDOS applications. ASP and HDSO have printer selection menus that ask you to specify the baud rate.

• There is some confusion as to the procedure for printing graphics from the ADVANTAGE screen to the NS-100 printer. The problem occurs because the NS-100 printer driver has to be loaded in memory before a screen dump is attempted. In general the procedure should be:

1. Boot up ADVANTAGE GDOS
2. Type: GO NS100 <CR>   ;appears to do nothing
3. Type: GO GBASIC <CR>   ;loads in GBASIC
4. Enter your GBASIC graphics program

5. Note: If you wish to have your program create a graphics presentation for printing on the NS-100, the last statement of your GBASIC program should be: A$ = INCHAR$(0). This instruction causes the system to wait for a character from the keyboard. Entering CONTRL T will cause the screen to be dumped to the NS-100 cleanly without the GBASIC "READY" prompt.

• The factory master HDOS 2.0 shipped with North Star Hard Disk systems assumes 56K of contiguous RAM from 0 to DFFFH. HDOS may appear to load successfully into less RAM than this but problems will occur when trying to load and run application programs.

HDOS will work with a minimum of 48K RAM but requires a patch to do so. The patch is as follows:

1. Boot up a non-write protected copy of your factory Master HDOS
2. Type: DS 013C <CR>   ;system should respond "013C E0 = "
3. Type: C0<CR>   ;for 48K system
4. Type: GO HBASIC<CR>   ;loads HBASIC
5. Type: LOAD SYSGEN,1<CR>   ;loads SYSGEN program from HDOS 2.0 diskette
6. Type: RUN<CR>   ;run SYSGEN program.

During program execution SYSGEN will report "YOUR SYSTEM HAS 48K RAM." This indicates you have patched the system correctly. Upon completion of SYSGEN you will have HDOS properly configured to run in a 48K system.

• When running HD5TEST,1 on a 5Mb HORIZON or ADVANTAGE computer, the following symptoms indicate a reversed 34 pin cable from the drive controller to the drive:

1. Level 1 test fails to run at all.
2. Level 2 test reports a 113 error and then requests level 3 to be run.
3. Level 3 reports a 113 error followed by continuous 120 errors.

If these are your symptoms, reverse the large connector and try again.

North Star Supports a Full Range of CP/M Compatible High-Level Languages

A full program development environment is now available from North Star for the serious CP/M® programmer. North Star provides full support for three widely used high level languages under CP/M— MicroSoft COBOL with M-SORT for the business applications programmer, MicroSoft FORTRAN for the scientific applications programmer and MicroSoft Pascal for the system level programmer.

These languages, in conjunction with Enhanced WordStar's™ full screen program editing, interactive program debugging, operating system support for quad density floppies, and five and 18 Mb hard disk capacities, offer a broad range of support for beginning programmers to advanced system programmers. Users can now generate complex applications, operating systems interfaces, and quick, simple programs as required to fulfill a wide variety of needs.

The three languages are fully compatible under single and multi-user HORIZON® systems running CP/M and are directly portable to North Star ADVANTAGE systems running Graphics CP/M. This includes the NorthNet™ local area network and the 8-bit mode of the ADVANTAGE 8/16 system.

• **Pascal**
North Star Pascal under CP/M is ISO standard Pascal, with the addition of many system-oriented extensions.

Pascal's structure and procedure orientation makes system programming more efficient than with assembly language, and the system software is highly readable, modular, and transportable via different code generators.

All enhancements are natural extensions of the existing language. Many

North Star Initiates Major New Distribution Effort

Two Multi-Million Dollar Contracts Signed in July will Increase Availability and Support of North Star's Systems and Software.

Two major distribution contracts, initially valued at more than $230 million and designed to augment the current comprehensive distribution network, were signed in July by North Star.

The first contract, a two-year North American distribution agreement with the Avnet Corporation, is initially valued at $30 million and will include North Star's complete product line of single and multi-user systems and software. The contract will be implemented through Hamilton Micro Systems and Loonam Computer Products, both divisions of the Avnet Computer Marketing Group which specializes in microcomputer systems, applications software and peripherals. Avnet is the largest distributor of electronic equipment in North America.

The second contract is a multi-year international distribution agreement with TRW Inc. valued in excess of $200 million. Under the agreement, TRW Datacom International, a division of TRW Inc., will be the exclusive distributor of North Star's complete product line outside of the United States with the exception of Canada where the agreement is non-exclusive. In addition, it will have exclusive distribution rights domestically to TRW Inc. and its subsidiaries. North Star's current overseas distributors will be transferred to and supported by TRW Datacom.

"TRW has a strong presence throughout the world and provides local marketing, technical support and a full range of international services such as export financing and multinational account management to its distributors. These were key considerations in our decision to make this agreement," said

Chuck Grant with James L. Kelly, Vice President and General Manager for TRW Datacom International, Inc.

Charles Grant, president of North Star. "Current North Star distributors and customers as well as future business prospects should enjoy faster delivery, excellent service and improved local support."

"The addition of Hamilton-Loonam and TRW Datacom to our distribution team should be beneficial to all existing distributors and dealers because of the increased market awareness and acceptance for North Star products that will result," added Elliot Wassarman, North Star's Vice President of Marketing.

A New Regional Distributor Joins the North Star Team

Welcome to Fleetwing Corporation, the latest addition to North Star's regional distribution network. Fleetwing, with offices in Lakeland, Fla., and Atlanta, Ga., distributes North Star's complete line throughout the Southeastern United States.

North Star-Sponsored Regional Training To Start in October

Monthly regional training sessions will be sponsored directly by North Star beginning in October. Tuition for the sessions, which will be held throughout the country, will be $195 per person for three-day courses and $295 per person for four-day sessions.

Dealer Training Courses in the new Training Facility at 14310 Catalina Street in San Leandro will continue, but starting October 1, tuition for the sessions will be charged at the same rate as the regional training. Tuition for the September classes will remain free for the first enrollment from your company.

Call North Star's Dealer Training Department at (415) 357-8500 X 582 for enrollment forms and additional information on costs.

Dealer Training in San Leandro, Calif.

September 8–10 WThF North Star ADVANTAGE Orientation
September 14–17 TWThF HORIZON & ADVANTAGE Maintenance
September 21–24 TWThF Applications Software
October 12–14 TWTh Sales & Marketing Strategies
October 18–19 MT Systems Software
October 20–22 WThF HORIZON Orientation

Schedule of Regional Training

Date	Location
September 21–24	Atlanta
October 4–7	Seattle
October 19–22	Los Angeles

Wanted: Input for the New Compatible Hardware Directory

North Star is now compiling a comprehensive Compatible Hardware Directory for North Star ADVANTAGE and HORIZON® equipment. The Directory, which will be published before the end of the year, will include any hardware such as MODEMs and analog-to-digital converters that you advise us is compatible with North Star equipment. This Directory, which will be a valuable tool in your sales efforts, depends on you. Won't you help us? Please submit your suggestions to Karl Sterne in Product Marketing by September 15.

OOPS! Department

In the June/July Dealer News we indicated that TSS/A is $499 — the correct price is $349.

CP/M compatible language

low-level enhancements have been provided, such as direct access to memory locations, calls to assembly language subroutines and RETYPE function.

A Macro Assembler is also included.

● COBOL
North Star brings the world's most widely used computer programming language to the microcomputer user.

North Star's COBOL is based on the 1974 ANSI standard containing all Level 1 features and the most useful Level 2 options. In addition, the language has been extended in three ways to take advantage of microcomputer features. First, there is a versatile interactive screen-handling facility to make use of CRT terminals. Second, a data format called COMP-3 packs two digits of numeric data per byte which reduces mass storage requirements. Third, special debugging instructions have been implemented. M-Sort is packaged with COBOL by North Star. It is a record sorting facility available to the COBOL programmer through 1974 ANSI COBOL

SORT/MERGE statements. M-SORT accepts input records in an arbitrary order, then returns them sequenced according to user specifications.

● FORTRAN
North Star's FORTRAN for microcomputers is comparable to FORTRAN compilers on large mainframes and minicomputers and includes full ANSI Standard FORTRAN X3.9-1966 except for the COMPLEX data type.

The package provides a microprocessor FORTRAN and assembly language development package that generates relocatable object modules. Only the subroutines and system routines required to run the FORTRAN programs are loaded before execution. Subroutines may be placed in a system library. Therefore, if only one module of a program is changed, it is only necessary to re-compile that module.

There is a large library of subroutines supplied with FORTRAN including efficient routines for 16-bit and 32-bit integer arithmetic and 32-bit and 64-bit floating point arithmetic.

A relocating macro assembler and a linking loader are also included in the package.

"A Really Slick Product" With A Strong Future At North Star

"No other manufacturer of hardware or software has as extensive a line of software that is fully integrated, easy to operate, looks the same throughout all of the packages, has quality documentation, and is field tested and proven."

"A major client needed a good multi-divisional accounting system, with flexible reporting capabilities. Using the North Star Financial Reporting system I was able to create a 23-page comparative financial statement."

"I spent a year and a half looking for software and talked with half a dozen dealers. I found North Star software to be the most complete system for client write-up applications available, tested and running."

"It's a really slick product!"[1]
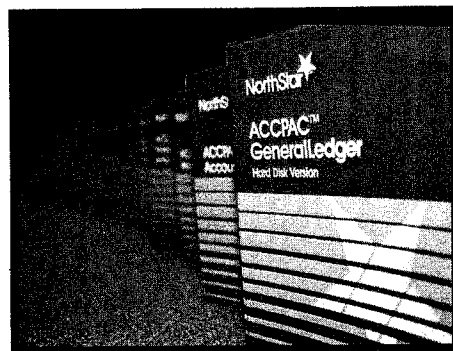
At North Star we have long recognized the importance of addressing the needs of the business community and providing "total solutions" to business problems. In 1979, after an exhaustive review, we chose to develop a set of applications packages that would be completely menu driven, user-friendly, totally integrated and consistent in appearance and documentation throughout the product family. The result was our proprietary Applications Support Program (ASP). To date, under ASP we offer word processing and data base management software in addition to a growing line of ACCPAC™ business applications packages, and PROPAC™, a group of Professional Services Management packages.

You may have been contacted recently as part of an informal survey we did to assess the level of support in the field for ASP and record your opinions on how we could improve our support of the packages. According to your feedback, our major competition is Peachtree™, Apple®, TRS-80™ and

Accounting Plus™. You also said that to enhance sales we should provide demos, add a payroll package to ACCPAC, and do a comparative study of the advantages of ACCPAC versus the competition. Another important result of the survey, however, was that we found out that you believe ASP is "the best kept secret in the microcomputer industry." Your

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Benchmark — Just How Does Our G/L Compare? ...... Page 4

New Products & Support Coming Soon .... Page 3

Plus: ASP-Based Packages From *MicroComputer Specialists* are "Just Another Appliance" and How One North Star Dealer Worked With SORBUS To Close A Major Sale.

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[1] These are among the comments we've received lately from users and dealers such as Glenn Gleason, a CPA from Sacramento, Calif.; Clark Richie, a North Star Dealer from Elkon, W. Va.; and Chip White, a North Star Dealer from Arlington, Va., about the software packages that run under our proprietary Applications Support Program (ASP) operating system.

# Sell Solutions To Your Business Customer With ACCPAC

Among the concerns business people express when they shop for the first-time purchase of a microcomputer, two stand out. One: "Will it take more time to learn how to use the computer than it takes to do the accounting manually?" And two: "Will the system be sophisticated enough to solve my accounting problems—not make new ones?" With ACCPAC, *you sell solutions—not additional headaches.*

ACCPAC is North Star's ASP-compatible package of business application programs. It is specifically geared toward the naive end-user and provides a common appearance throughout the documentation and systems— which decreases training time and increases the likelihood of add-on sales. ACCPAC provides software that has the power of mini-computer offerings, but at 1/10th the price.

Benefits of the System

Since all ACCPAC software is geared for the business person, interaction with the system is designed to be consistent and non-technical. The software is completely menu driven and the operating system is transparent to the user—a truly user-friendly system that can be treated as an office machine rather than a mysterious computer. Since the extensive documentation and screen formatting present a consistent appearance, training time is reduced and add-on sales are encouraged. Most importantly, ACCPAC offers total system integration. Files can be transferred among all ASP family modules (GeneralLedger, AccountsReceivable, Accounts Payable, Inventory

Control and Analysis, NorthWord™, InfoManager II™, etc.), reducing data entry time and saving time and money. The documentation includes both hands-on tutorials for self-training and notes addressed to accountants for simplifying the transition from manual to computer based accounting. All software is delivered with sample data corresponding to the hands-on exercises.
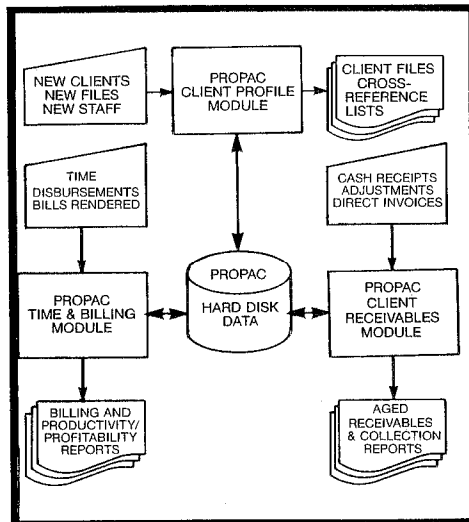
Sophisticated Accounting Capabilities/Controls

ACCPAC offers a level of sophistication in accounting capabilities and controls that is unmatched among its competitors. This benefits both the small business person computerizing accounts from a shoe box and the professional accountant who can take advantage of unparalleled flexibility in financial reporting analysis. ACCPAC is designed to

strictly control the way in which information is entered. It not only traps errors but indicates what the error is; e.g.: invalid post date or out-of-balance account. Automatic batch and transaction numbering are provided, making it easy to track transaction entries from hard copy. Other systems actually give the user the option of not listing a batch of transactions—providing a means by which a general ledger account can be altered without any record.
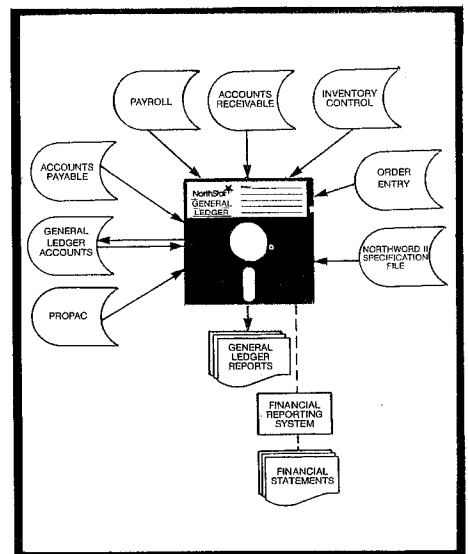
North Star Support

North Star continues to support ASP through the ADS licensee program described in this issue and through inclusion in new technology currently under development. For example, ASP will be supported on North Star's local area network next Spring. On the network, data will actually be shared between CP/M® files and ASP files.

New Offerings To Join The ACCPAC Family

New Application Packages

This fall the ACCPAC software family will be expanded with three new packages.

While it's too early to give details on these packages, we want you to know that we have evaluated several alternatives and are now preparing to formally announce and release payroll, enhanced word processing, and financial analysis packages. So if you have customers who require such packages, you may assure them that North Star is providing solutions for their needs.

Point Of Sale Tools and Demos

Many of you have asked for better tools to promote the ease of use, flexibility, and capabilities of ACCPAC software while relieving you of the time it now takes to adequately learn the system.

Well, we've heard your plea! We've just completed an exhaustive review of demo and training approaches used by competitive packages. Now we are developing a set of packages which will include separate demos on:
1. G/L, A/R, & A/P
2. Inventory & OrderEntry
3. PROPAC

Each demo package will include a set of software and user's guides. The guides will begin by using your prospective customers' own sample data in the system. The customer is then led step-by-step through the set-up of required accounts, data entry, etc. The result will be a report that the customer can take back to the office to help make a "purchase" decision. This will allow you to perform a professional demo using the instructions included in the last section of the guide. You should be able to learn and set-up the software for the demo in under an hour, and conduct a customer demo in under half an hour.

In addition, a multi-page data sheet on the ACCPAC family of software is being prepared which will highlight benefits, features, package integration and user testimonials on the ACCPAC software.

Teamwork With Sorbus Closes A Sale For MicroStar Computers

Don Hankus, a North Star dealer, and **Joe Bruno,** a field manager for MAI Sorbus, recently learned first hand what a powerful combination good salesmanship and national ON-SITE service can be when it comes to selling computers.

Hankus, who is a partner in **MicroStar Computers** in Torrance, Calif., recently installed eight North Star ADVANTAGEs for a division of Computer Science Corporation in El Segundo, Calif. But the sale was made only after Hankus arranged a meeting between buyers from Computer Science, Bruno and the local MAI Sorbus district manager Doug Frederich.

"Don called me and said that he had a good sales prospect but that they wanted to be sure they could get reliable, fast service on the equipment," Bruno recalled. "So we all met and after we explained the advantages of the system and the details of our service arrangements, they bought the machines and contracted for service agreements on every one of them!"

Now that's the way to work together!

Software Under the Star

From time to time dealers and other individuals will contact us because they have developed a new software package for North Star equipment. They ask if there is any way to "get the word out." Well, the word is out now. In future issues of Dealer News we will include brief descriptions of the benefits and capabilities of new software. This should not be considered an endorsement of their work—simply an update service to our Compatible Software Directory, in order to publicize the availability of various software for North Star equipment.

If you have developed a package specifically for North Star systems and would like to be included, please send a four to six line description of the package with your company's name and address to North Star Software Product Marketing. We will include these on a first come, first serve basis.

When It Comes To Performance, Ease of Use and Accounting Controls,

ACCPAC General Ledger Leads The Pack

In the following excerpt from an informal Benchmark Study, North Star's ASP compatible General Ledger is evaluated against the two leading CP/M accounting packages: Peachtree and Accounting Plus. The areas of testing focused on Performance, Ease of Use and Accounting Controls. All tests were run on a North Star ADVANTAGE HD5, and the same operator performed all data entry.

PERFORMANCE (in minutes:seconds)

	ACCPAC	Peachtree	Acctg +
Chrt of Accts (100 entries)	14:01	42:03	20:00
Data Entry (500 trans)	79:25	82:18	123:00[1]
Backup/Restore	3:00	7:35	6:18
DB Rebuild	1:30	138:00[2]	1:38

EASE OF USE

	ACCPAC	Peachtree	Acctg +
Total Number of Steps (Installation, Set-Up, CoA, Trans, Backup)	27	72	54
Steps/Transaction Entry	4-7	5	8
Steps in Set-Up	10	49[3]	19-78[4]
Steps To Perform Backup/Restore	3	5	7

ACCOUNTING CONTROLS

	ACCPAC	Peachtree	Acctg +
Audit Trail Mandatory	Y	N[5]	Y
Error Detection			
Out of Balance	X	X	X
Invalid Account	X		X
Data Validation	X		

REPORTS

	ACCPAC	Peachtree	Acctg +
Standard Reports	11	13	8
Report Generator (For Customized Repts)	Y[6]	N	N

[1]Accounting Plus requires that the user organize the way data is entered so that up to 12 distributions per transaction entry are allowed. (e.g.: one credit entry allows up to 12 debit account distributions.)

[2]Rebuilding files under Peachtree requires a sequential file search, whereas the other packages only rebuild indexes.

[3]Peachtree requires that the user define the financial report format as part of the Chart of Account entries.

[4]Any integration with other systems or password requirements increase the number of set-up steps from 19-78 under Accounting Plus.

[5]This can result in an inaudible condition, with no record of transaction entries.
[6]Financial Reporting formats are developed with the NorthWord processing system, allowing complete user flexibility in designing reports.

General Conclusions of the Informal Benchmark Study

In this study, ASP is the best in 11 of 15 categories tested: 5 out of 7 speed tests, 5 out of 6 ease of use tests, and in accounting controls with very sophisticated data entry edits and account verification. The following comments were excerpted from the conclusions of the study.

Peachtree
Two reasons this system has sold well are its simplicity and the availability of source code. However, the cost of this simplicity is high; limitations include slow operation, rigid account numbering and report formatting, poor accounting controls, lack of depth in documentation and limited financial reporting capabilities. The availability of source code has led to numerous versions in the field, creating a support burden on the vendor.

Accounting Plus
Accounting Plus is generally a well-designed accounting system. However there are limitations. Installation and progam set-up are cumbersome and require knowledge of CP/M, lack of a data inquiry screen is a significant flaw, rigid data entry requirements mean tedious transaction preparation time for general ledger entries, an audit listing is an option when the system is integrated with other modules. Financial reporting capabilities are limited to comparative balance sheet and income statement.

ACCPAC General Ledger
ASP's menu driven operating system provides easy system installation, including terminal and printer driver selections; fast
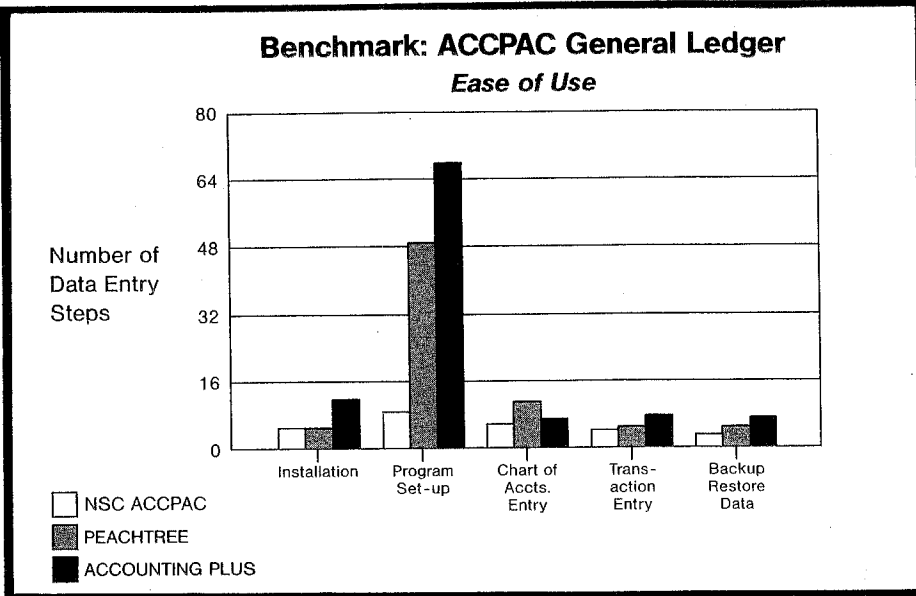
Benchmark: ACCPAC General Ledger
Ease of Use

Number of Data Entry Steps (vertical axis: 0, 16, 32, 48, 64, 80)

Categories: Installation, Program Set-up, Chart of Accts. Entry, Trans-action Entry, Backup Restore Data

Legend:
- ☐ NSC ACCPAC
- ▨ PEACHTREE
- ■ ACCOUNTING PLUS

program set-up and data entry without extensive preparation time; built-in error trapping; comprehensive accounting controls; automatic backup/restore functions; documentation that contains tutorials and in-depth explanations of program functions; and unlimited report formatting options. However, other considerations include: a large amount of disk space required for data, extensive documentation, the need to inventory two separate systems (one for floppies and another for hard disk media), the need to print two transaction

listings—one before and one after posting, and sophisticated report formatting options. The learning curve on the report formatter is steep when only one format is to be defined. However, service bureaus and dealers who learn the reporting module can customize reports for individual customers in a very short time. Many offer one "set" of report formats with delivery of the system, and offer additional formatting for a fee. Once the report formatter is mastered this becomes a very profitable service.

General Ledger Speed Comparison
Time to perform

TIME RATIO (vertical axis: .00, 1.00, 2.00, 3.00, 4:00, 5:00)

Categories: Chart of Accounts (100 entries), Transaction Entry (500 entries), Back Up/ Restore, Database Rebuild

Legend:
- ☐ ASP
- ▨ PEACHTREE
- ■ ACCOUNTING PLUS

Regional Training Schedule

The following is an initial schedule of North Star-sponsored training courses to be held in major cities throughout the country. These four-day courses will cover a compilation of the classes taught in San Leandro.

● Sales and Marketing Strategies

● HORIZON Orientation

● Application Software

● ADVANTAGE Orientation

Date	Location
November 16-19	Seattle, WA
January	Los Angeles
February	St. Louis

Tuition for classes will be $295 per person for four-day sessions.

Course descriptions for the San Leandro classes can be found in your updated Dealer Manual. Call North Star's Dealer Training Department at (415) 357-8500 X582 for additional information.

(Please Note: Monthly forms will be discontinued effective this month since this information will be included in each Dealer News.)

ADS—Keep That ASP Software Coming!

From Oshkosh to Singapore, Veterinarian Practices to the Transportation Industry, ADS Licensees Work Throughout the World Applying Computer Technology to Varied Businesses and Professions

Since June 1981, North Star has licensed its Application Development System (ADS) to software vendors, dealers and OEMs throughout the world. Under the program these licensees use the powerful programming tools of ADS to develop new business-oriented application programs for the proprietary ASP family. The program has been an exciting success story, generating solutions for such varied users as veterinarian practices and the transportation industry. Below is a current list of licensees with information on contacts and projects. Many of the projects described are already fully developed, some are in development, while others are in the initial planning stages. The purpose of this listing is to facilitate the open exchange of information.

ADVANCED BUSINESS SOFTWARE, INC. Don Lynam, President, 5618 Kalas Street, Madison, WI 53716, (608) 222-7469.
Advanced Business Software is currently working on a payroll application capable of interfacing with ACCPAC.

ALLEGRO COMPUTER SYSTEMS, LTD., Andrew Bates, Owner, David Repchuck, Applications Analyst, 640 West Eighth Avenue, Vancouver, BC, V5Z IC8 Canada.
Allegro offers two software packages specifically geared to the Canadian market: a trust accounting system that integrates with PROPAC and a payroll system that interfaces with ACCPAC.
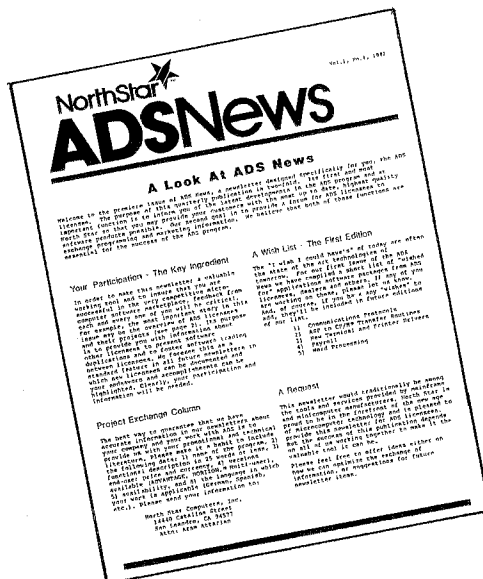
A.M. DATA SYSTEMS, INC., Jeffrey R. Maddox, 60-23 Lawn Avenue, Stamford, CT, (203) 324-9964.
New licensee—no information available at this time.

CARGOSPEED CORPORATION, D. Glyn Thomas, Owner, 71 Toussin Avenue, Kentfield, CA 94904, (415) 459-3933.
Cargospeed, a North Star Authorized Dealer, specializes in applications for the transportation, equipment leasing and service industries.

COMPCARE, Dr. Kent A. Kruse, 815 Witzel Avenue, Oshkosh, WI 54901, (414) 233-2756.
CompCare specializes in software for the medical field with a package called Practice Manager.

COMPUTER AGE SYSTEMS, Paul Kilian, Bishopstone & Penhurst Avenues, Essexwold, Johannesburg, Republic of South Africa, Telex: 960 8-6237 Phone: 27 11 539235.
Jewelers Manufacturing and Retailing package.

COMTEK, Hank Guell, Vice President, 90 John Street, New York, NY 10038, (212) 962-6131.
Comtek is presently working on medical and laboratory packages.

DATATRONICS PRIVATE LTD., Terry Lim, Units 05-03 & 05-04, Block 6, Kolam Ayer Industrial Estate, 12 Lorong Kakar Batu, Singapore, Telex: RS39084 Phone: 65-747-5122.
No information is available at this time.

GERRELLS, LIGHT & ASSOCIATES, Bill A. Gerrells, Owner, Bill Light, Owner, 512 Fourth Street, Devils Lake, ND 58301, (701) 662-2197.
GL&A, which sells North Star products exclusively, is presently working on applications for payroll and an interface program between accounts receivable and sales for newspapers.
(continued next month in Dealer News.)

Second ADS Free Seminar Scheduled For October

All Dealers, Distributors, OEMs and Software Houses are invited to the second North Star ADS seminar, scheduled in conjunction with **Info '82 in New York City on October 13.** The free seminar, which will be held from 9 a.m. to 5 p.m. at the Essex House on Central Park South, will feature speakers from Basic Software Group, authors of the North Star ASP family. It will be a chance for all of you to learn more about the ASP software product line and the ADS software development program, according to Aram Attarian, coordinator of the session.

Call now for your registration form: (415) 357-8500 X 531.

Computer Systems for the Small Business Person—

ASP-Based Packages from *Microcomputer Specialists* are "Just Another Appliance"

*Non-technical, small-business people want to use a computer as just another appliance. They don't know how computers work and quite frankly, they don't **want** to know—they just want them to work,* explained Dave Brown, president of *Microcomputer Specialists, Inc.*

This is the marketing philosophy behind his company, a Boston-based systems house licensed under the ADS program. It is also the reason Brown is such an advocate of North Star's unique program-development tool and ASP business software.

Microcomputer Specialists Inc. (MSI) has been a dealer of North Star equipment for four years, marketing the full line of North Star hardware with a variety of peripherals. The company sells software developed by North Star and MSI's own programmers. Their target from the first has been small business owners in the Boston area.

Brown believes that CP/M compatible packages are not suited

Senior Programmer, Joe Lividini, oversees all ADS software developed by Microcomputer Specialists, Inc.

to the needs of his end-users. "The CP/M route is usually inappropriate in our marketplace," he contended. "To use these packages the end-user has to be much more sophisticated in computer technology than he really wants to be." Since starting his business, Dave has been searching for a system that would allow his customers access to their computers in a way that would require very little technical knowledge.

Since becoming an ADS licensee last year, Dave has created a
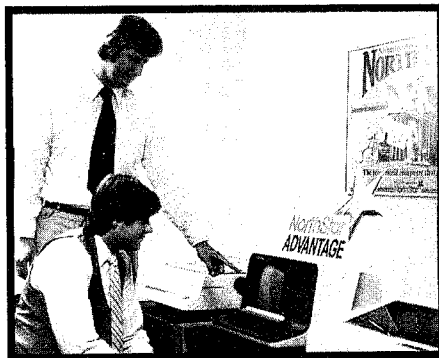
Dave Brown demonstrates the North Star product line to attorney Bill Bloom in the office showroom.

specialized financial forecasting package called ReCal and is now marketing that product while he develops a manufacturing inventory program.

Microcomputer Specialists' "ReCal Financial Forecasting" package is a spread sheet analysis program that interfaces with North Star's General Ledger and Financial Reporting packages. In fact,

according to Brown, his program can be considered the third part of the trio for users who already have the two ACCPAC programs.

"General Ledger and Financial Reporting provide the small business with critical information to which he or she never before had access," Brown said. "Now ReCal can provide the fullest utilization of that information for analysis and projection."

Business projections and "what-if" analyses using a wide range of variables can be accomplished with speed and accuracy with MSI's Financial Forecasting program. The package runs on all North Star equipment, including the North Star ADVANTAGE and the HORIZON floppy and hard disk.

MSI's second specialty program, MISys, provides sophisticated inventory control and analysis for the manufacturer who must control raw materials in order to produce finished products. As with Financial Forecasting, this program was developed by MSI to fill a key "need" in the market.

"North Star's Inventory Control and Analysis packages are very good for distributors and retailers, but manufacturers have very different needs," he explained. In addition to inventory control, MISys manages Bills of Material and provides Puchase Order processing. MISys is written in ADS "C" and will run on North Star hard disk equipment only.

MSI also manufactures a line of special interface modules for the North Star ADVANTAGE computer.
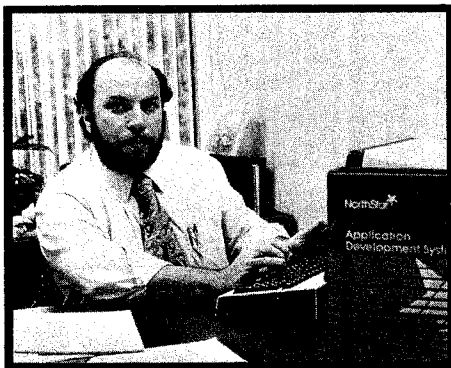
7

Technical Tips

Application Software Disk Space Requirements

An ADVANTAGE 1Q-HD5 running HDSO-ADV has 5 megabytes of formatted storage space available on the hard disk.

The following table identifies the various application programs which may be run with HDSO-ADV and specifies the approximate amount of disk space that is required. Ideally, 50 percent of the hard disk should be reserved for data. However, in some applications you may not need that much.

Application	% Disk Space Used	Comments
HDSO-ADV	15%	w/o GHDOS
NorthWord	14%	See Note 1
InfoManager II	9%	See Note 2
GeneralLedger	6%	See Note 2
FinancialReporter	2%	See Note 2
AccountsPayable	8%	See Note 2
AccountsReceivable	10%	See Note 2
OrderEntry	12%	See Note 2
InventoryControl	12%	See Note 2
PROPAC Client Profiles	8%	See Note 2
PROPAC Client Recvbles	8%	See Note 2
PROPAC Time & Billing	10%	See Note 2

Note 1: 250 pages of data space will automatically be allocated under NorthWord unless the user selects less space.

Note 2: This percentage does not include space for data since requirements vary with each user.

From the table above you should be able to estimate the approximate amount of disk space required for a particular HDSO-ADV/application program configuration. Remember that if you are using more than one project, the amount of disk space required for data storage will increase proportionally.

The standard NorthWord configuration allocates space for 250 pages. However, if you use NorthWord to write short letters, 50 pages of space may be more than enough to allocate. By using 50 pages instead of the standard 250, you can save 10% of disk space. Similar disk space savings can be had by carefully configuring other application programs to meet only your immediate needs. (This move should be carefully considered in light of long-term needs and should only be done when conserving disk space is a necessity.) For instance, significant space savings are possible with InfoManager II by using abbreviated fields and allocating space for no more than the number of records you currently need.

Put The New North Star Radio Commercials To Work Today

Local radio advertising is amazingly inexpensive. For example, you can pay off the cost of airing 15 of the new North Star radio commercials (average time period, average United States market) with the profit from *just one* North Star ADVANTAGE or HORIZON sale.

So order your free North Star radio commercials today! You can get two professionally produced commercials that are sure bets to stimulate your sales traffic. Both are 60-second spots with 50 seconds of copy and 10 seconds reserved for your identification. Your local radio stations can help you with the I.D. segment when you buy space from them. And speaking of buying space—North Star will pay for half of the cost of local air time under the Cooperative Advertising Program! Contact your distributor or send your written request to:

Marketing Communications
North Star Computers, Inc.
14440 Catalina Street
San Leandro, CA 94577

"A Really Slick Product"

responses indicated that ASP really does work reliably, is extremely easy and flexible to use and sells because it is completely integrated. You also indicated interest in our future plans for ASP.

Well, as you can see from this special issue, we have plenty of plans for ASP—all of which mean greater support and increased program offerings. ASP really is a "slick little product," and it does have a great future here at North Star.

NorthStar™ DealerNews

North Star: Committed to Being The Easiest Microcomputer Company to Deal With

This Is It!
The North Star
ADVANTAGE 8/16

Right on schedule, the first North Star ADVANTAGE 8/16 upgrade packages were shipped out in November. The upgrade includes an 8/16 co-processor board with 64Kb of RAM, a power boost module and a guide for easy installation into the standard North Star ADVANTAGE. Additional 64Kb memory boards are also now available. These provide up to 256Kb of RAM for the 16-bit microprocessor.

With the new 8/16, you can sell the inherent benefits of the popular 8-bit, CP/M® compatible North Star ADVANTAGE in combination with the increased power, larger memory capacity and MS™-DOS compatibility of the 16-bit Intel 8088-2 microprocessor.

The North Star ADVANTAGE 8/16 supports the operating systems of the standard ADVANTAGE, which are Graphics CP/M, Graphics DOS/ Graphics BASIC, and North Star's proprietary operating system, plus Graphics MS-DOS for 16-bit applications.

In conjunction with the first shipments of the 8/16, North Star is now offering a full range of 16-bit languages for both the novice and experienced programmer with:

BASIC - 16
BASIC - 16 COMPILER
Pascal - 16
FORTRAN - 16
COBOL - 16

These Microsoft languages, which all operate under Graphics MS-DOS, are compatible with the 8-bit Microsoft languages offered by North Star for CP/M. The source code of the 8-bit applications may be easily ported to North Star's Graphics MS-DOS, since that operating system can read and write CP/M compatible files. These applications can therefore take advantage of the increased speed and larger addressable memory of the 16-bit environment. This is a key selling point of the ADVANTAGE 8/16. Your customers have a migration path from an extensive library of 8-bit application software

to 16-bit application software programs as they are developed and as larger CPU memory capacities are needed. It's also an example of North Star's continuing effort to support OEMs and software houses by providing a true migration path through our entire family of hardware—thereby insuring your software investment.

Another selling point—the 8/16's 8088-2 processor runs at 8 Mhz, which offers quite a competitive edge over the IBM-PC which runs at 5 Mhz.

So think of the 8/16 today—it's a great option to offer your customers.

New Regional Training Program Initiated This Month

North Star recently began a nationwide regional training program for dealers and distributors as part of a major effort to increase support to you and provide you with the latest information on products and marketing strategies. The new program was initiated with an intensive 11-city kick off campaign.

"A fully trained, knowledgeable dealer and distributor base is essential for the success of a company such as North Star that sells higher end, complete business systems," North Star's President Charles Grant explained when the program was announced. "Not only are the hardware and software products complex, but many company programs and service policies need to be explained in small, face-to-face meetings."

Currently North Star provides three- and four-day training courses at the training center in San Leandro. However, we decided to take the training "on the road" to provide even stronger support to our resellers.

"We have a commitment that every person and every department in our company will work to make North Star the 'Easiest Micro-computer Company for Resellers to Deal With,'" Grant said. "When we turned this philosophy to our training program we realized that we needed to make it more convenient and accessible to the people for whom it's intended. This is why we will now offer courses on a monthly regional basis. We are placing a high degree of emphasis on our 'Easy To Deal With' policy, both internally and externally, to bring it to everyone's attention."

The 11-city "kick-off" sweep for the new program included Los Angeles/Southern California, Boston, Chicago, Dallas, Atlanta, Orlando, Denver, Philadelphia, Seattle, Toronto and Northern

North Star's Director, Domestic Sales, Rhine Meyering and Supervisor, Technical Support, Steve Kanzler demonstrate a North Star ADVANTAGE at the Dallas meeting.

California. The program for each area consisted of a full-day session for each North Star distributor, followed by a full-day session for both current and prospective dealers that covered North Star's existing programs, dealer benefits, current and new products, sales techniques, and special promotions for North Star products.

North Star will soon initiate a new schedule of regional training, which will provide dealers with a comprehensive overview of the training classes held at the company's headquarters facility. These sessions will be held on a rotating basis throughout the country.

Now—A Floor Plan for North Star Dealers

North Star will now provide 60-day interest-free flooring on all products for its qualified authorized dealers within the U.S., through participating distributors. This step is part of a major new effort to enable you to improve product deliveries and expand your product offerings to the end-user, according to North Star's President Charles Grant.

Under our new floor plan you can order a product from one of our participating distributors and display it or keep it in inventory without incurring interest charges for 60 days. After 60 days only a small financing charge is incurred.

"Now you can show customers and prospects an extended product line of North Star equipment without tying up cash in inventory," Grant explained. "You will be able to use that cash for sales promotions, advertising, and increasing your sales staff. This new program is part of our effort to make North Star the easiest micro-computer company that you can do business with."

This financial aid will be extended to indirect dealers through participating distributors by ITT Diversified Credit. The cost of this program will be shared by North Star and your distributor.

There are two other benefits of this plan that you shouldn't over-look: inventory insurance and a special life insurance policy for the dealer/owner.

Leasing Option for End-Users Available

Through a cooperative agreement between North Star and U.S. Leasing, you can now offer three- to five-year leases on North Star products to potential users in the United States.

"This program provides the best of both worlds for our dealer and the end-user," Charles Grant said. "The dealer receives full cash payment at the time of the sale and the potential buyer has a choice of an outright purchase of a system or a leasing arrangement, depending on what makes more sense in the particular financial situation. The availability of a leasing option should close bigger deals faster
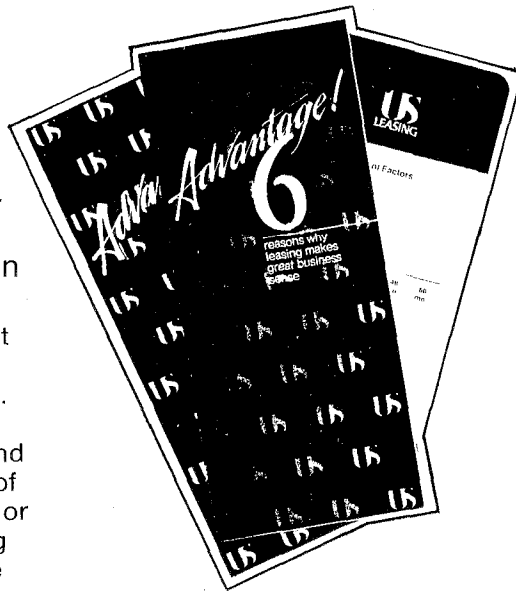
since the user can gain maximum use of capital as well as such tax savings as investment tax credit and expense deduction."

"We selected U.S. Leasing, the largest leasing company in the United States, because of their ability to be responsive to dealers and end-users, their excellent reputation and their knowledge of business computer leasing," he said. "Their Advantage Lease Package allows system upgrades under the lease as the user's requirements increase."

In addition, U.S. Leasing assumes all responsibility for collection. This is just one more program that makes it easier to sell North Star products.

Get Your Enhanced MicroPlan Tables Upgrade

Customers who purchased Enhanced MicroPlan before September are now entitled to the new tables upgrade free of charge. The upgrade, which has been included with orders since September, is a very important feature that allows data to be pulled from a number of MicroPlan tables and merged into one table. Call your sales administrator today to order your free upgrade (serial numbers of all MicroPlan packages purchased before September must be provided with your order). But hurry, this offer will only last until *December 31, 1982!*

Still Waiting...

We're still accepting your input for our new **Compatible Hardware Directory.** Inclusion in this issue would be a valuable selling tool for any hardware, such as MODEMs and analog-to-digital converters, that is compatible with North Star equipment. Call Karl Sterne in Product Marketing today with your submissions. (Phone 415-357-8500).

What Would You Like To See In *Dealer News?*

How could we improve this publication and make it a more valuable tool for you? Write in with suggestions or constructive criticism and we'll try to apply your comments to future issues of this newsletter. Write to:

Editor
Dealer News
North Star Computers, Inc.
14440 Catalina Street
San Leandro, CA 94577.

ADS—Keep That Software Coming!

Last month we began a list of software vendors, dealers and OEMs throughout the world who participate in our ADS Licensee Program. Under the program these licensees use the powerful tools of the Application Development System to create new business-oriented application programs for the proprietary ASP family. The following is a continuation of that list.

ISLAND DATA COMPUTER CENTER, Michael King, Owner, P.O. Box 275, 2116 200th Avenue West, Oak Harbor, WA 98277, (206) 679-3558.
Island Data Computer Center uses ADS to develop custom interfaces to North Star's ACCPAC software.

MANAGERIAL COMMUNICATIONS, David Leppaluoro, 329 East 8th, Eugene, OR 97401, (503) 683-3503.
New licensee—no information at this time.

MICROCOMPUTER CENTER, INC., Bill Buckmaster, 3900 Broadway Avenue, Fort Meyers, FL 33901, (813) 939-5444.
New licensee—no information available at this time.

MICROCOMPUTER RESOURCES, Jim Walter, 6280 150th Avenue North, Clearwater, FL 33520, (813) 536-4765.
Microcomputer Resources features two major packages, one for back-office bookkeeping for bond sales offices, and one for municipal bond underwriters.

MICROCOMPUTER SPECIALISTS, David S. Brown, President, 18 Lyman Street, Westboro, MA 01581, (617) 366-1200.
Microcomputer Specialists presently offers two application software packages: Recal Financial Forecasting and Manufacturing Inventory.

MIDWEST COMPUTER TECHNOLOGY, Edward P. Tokarski, Marketing Sales Manager, Richard Raymond, Vice President, 1018 Gilbert Road, Flint, MI 48504, (313) 733-1730.
MCT, a North Star Authorized Dealer as well as an ADS licensee, has four

software packages: Medi-Pac (medical billing), Job Cost System, Job Cost Payroll and Payroll.

RAFRAS LTD., Asgeir Bjarnason, Fellsmula 24-26, 105 Reykavik, Iceland, Telex: 858 2167 Phone: 354 1 82980
Rafras has completed the modification and language translation of ASP to acceptable Icelandic standards, installing NorthWord, InfoManager and General Ledger on floppy disk systems.

THE SIERRA GROUP, Stanley Glass, William Meyers, 235 Bon Aire Drive, Florissant, MO 63030 (314) 838-4549.
The Sierra Group is presently working on three software packages: a 40K RAM memory spelling system for NorthWord, a legal word processing package for NorthWord, and a professional manuscript preparation package for NorthWord.

SIMMONS & ASSOCIATES, LTD., Don Simmons, President, 2711 W. 183rd Street, Suite 206, Homewood, IL 60430, (312) 957-1383.
This new ADS licensee has plans for application software geared toward professional service organizations such as small legal and accounting firms, using PROPAC.

SOUTHWEST COMPUTER CENTER, Ronald Mozer, 121 Wyatt Drive, Las Cruces, NM 88001, (505) 526-2842.
Southwest Computer Center is presently working on exclusive enhancements of ACCPAC for the large end-user base.

Function Key Strips Find A Home

Now the function key overlays provided with NorthWord®, WordStar™ and MicroPlan™ have a home of their own on the North Star ADVANTAGE!
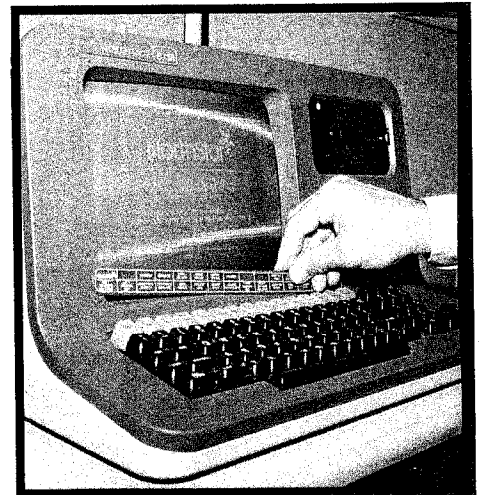
Starting in November all North Star ADVANTAGEs will be shipped with attachable plastic holders for the function key strips. The strips can now be easily interchanged for use with different applications instead of being pasted to the machine.

Limited quantities of the trays are available free of charge for resellers who wish to upgrade their current stock. Request them from your regional sales administrator.
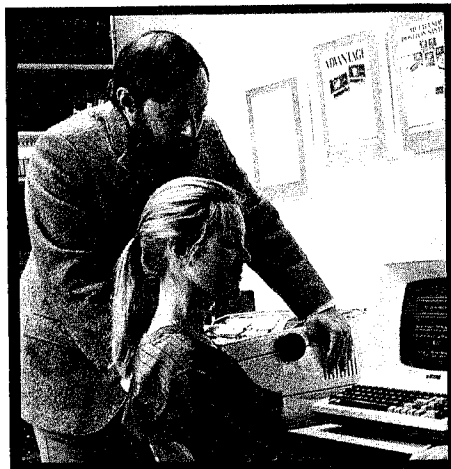
Brillig Data Systems—
Finding the Key To Success

The key to success if you're a computer retailer is to target one particular vertical market and really go after it — but you'd better understand every 'in and out' of that market, according to Stephen Gould of Brillig Data Systems, a North Star reseller in San Francisco, Calif.

It was with this philosophy that he and his partner Bruce Spikell started Brillig Data Systems 1½ years ago — and it certainly seems to be working. They've sold more than 30 North Star systems in that time, recently opened an office in Los Angeles, and added six full-time sales people in addition to support staff. They are now one of the fastest growing North Star dealers in the San Francisco area, according to their distributor, Northern Lights.

Brillig's target market is architects and engineers and if things go as planned, "there won't be an architect's or engineer's office in our sales area that doesn't have a microcomputer for word processing and management," Steve proudly predicts. Their choice of vertical market follows closely with their business philosophy.

"Everybody in the world goes after doctors and lawyers," Steve said. "But because they don't necessarily understand those markets' needs and psychology, many fail." Bruce, however, knows his market well — he has been a registered architect for 14 years.

"There is no question that the

Brillig Data Systems President Stephen Gould and Sandra MacAulay demonstrate one of their microcomputer systems based on the North Star HORIZON.

microcomputer will soon be as common in an architect's office as a "T" Square," Bruce said.

The microcomputers Brillig sells to its target market are North Star ADVANTAGEs and HORIZON®s, since Steve and Bruce deal with North Star products and related peripherals exclusively. Their software is a specially developed package that handles project management, time accounting, invoicing and accounts receivable and feeds through to the North Star ACCPAC™ modules. It is written in North Star's version of BASIC and is fairly unique, according to Steve, since it is designed to be used by the professionals' secretaries and bookkeepers. Sales of systems with this software account for two-thirds of their business to date. The

remainder of their sales have been systems that contain standard North Star software.

Another key aspect of Brillig's success has been add-on sales. Nearly every system they've sold has later been increased by at least 50 percent with the addition of hard disks, more terminals and other peripherals, according to Steve.

Steve and Bruce are hoping this trend carries over to their latest customer — Crocker Bank. Brillig recently closed deals with the corporate headquarters of the bank for a multi-user, word processing and data base management system.

Of course, Steve and Bruce won't rely on luck to bring in add-on sales to this deal or with any other customer. "We make it our business to service our customers and establish solid working relationships," Steve explained. "We become our client's information processing department — they'll always come back with new needs."

Brillig Data Systems' John Nrattrass (left), Kelly Horan, President Stephen Gould, and Sandra MacAulay review the day's agenda at the San Francisco office.

Technical Tips Technical Tips

When ASP Application Program Installation or "Restore Data" Fail

Sometimes, for external reasons, the system gives a catastrophic error message when you are installing an application or restoring databases under TSS/A or HDSO. You should determine what caused the problem and take action to correct it. After this you must remove the program files or the data files that have already been transferred onto the hard disk before you restart the procedure.

The following is the procedure to remove these files from the system:
1. Select the system functions menu;
2. Select the file handling utilities menu;
3. Select the remove files utility;
4. The files to be removed are all prefixed by a two letter code. Each application has its own unique two letter code.

ACCPAC	
Accounts Payable	AP
Accounts Receivable	AR
General Ledger	GL
Inventory Control	IC
Order Entry	OE
Payroll	PR
PROPAC	
Client Cross Reference	LW
Receivables	LW
Client Time & Billing	LW
Trust Accounting	LW
OTHERS	
InfoManager II™	IM
MailManager	IM
NorthWord	NW

Program files reside under project ASPCODE on drive 101. Project data files reside on the drive the project was created on. When you are asked to enter the name of the file to be removed, enter XX?????? where XX is the unique two-character code and ?????? indicates that you want all files beginning with XX to be removed. For example, for Accounts Payable files you would enter AP??????.

The system will then present the name of each file that matches your selection and ask you to confirm its removal. You should press RETURN to remove each file presented. This process will be repeated for each matching file found.

The restore procedure creates its own work files as it is restoring. These files will also need to be removed. The names are of the form RST??????. You should repeat the remove file name process with RST?????? to remove them.

When this procedure is complete, use the Install Application or Restore Function again, as appropriate.

Software Under the Star

From time to time dealers and other individuals will contact us because they have developed a new software package for North Star equipment. Last month we announced a new column in Dealer News in which new software packages developed by dealers and other individuals will be included. This month marks the beginning of the listing. Please note that this should not be considered an endorsement of their work — simply an update service to our *Compatible Software Directory,* in order to publicize the availability of various software for North Star equipment.

If you have developed a package specifically for North Star systems and would like to be included, please send a 4-6 line description of the package with your company's name and address to North Star Software Product Marketing. We will include these on a first come, first served basis.

CGH Marketing Specialists, Winona Road, Ashland, NH 03217, (603) 968-7655.
Fully supported educational administration software to run on the North Star HORIZON. Includes class scheduling, attendance reporting, grade reporting, handbook 2 accounting and payroll accounting.

Gene B. Jensen, NSS, P.O. Box 510911, Salt Lake City, UT 84151, (800) 722-3446.
NSS' Tire Dealer Package is specifically designed to handle all of the accounting and inventory needs of a tire dealer operation using the North Star ADVANTAGE. Provisions for Federal Excise Tax and Department of Transportation Numbers are built into the system.

Contract Research Software Corporation, One Illinois Center, Suite 722, 111 East Walker Drive, Chicago, IL, 60601, (312) 938-9000.
Law Office Management System consists of a series of law office accounting, docketing, billing, management reporting, and document inventory programs. Written in COBOL-80, the package is currently running on HORIZON systems.

NorthStar NorthWinds

Employee Assistance Program Expanded

If you need a helping hand in dealing with personal problems, you can now dial a 24-hour hotline number sponsored by North Star.

This new number is an extension of the **employee assistance program** that began in March, which offers a counseling service for North Star employees with alcohol, drug, marital or other personal problems.

Many employees have used the service since it began—*with absolute confidentiality and protection of their privacy.* Now, this new number provides even easier access to counseling help without the need to ask supervisors or HRD for a phone number.

The 24-hour hotline number is: (415) 668-5952. Initial contact with this counseling group is free of charge to all employees.

Spotlight on In-house Training

North Star's new training program has been receiving great reviews! These classes, which can improve employee skills and are often job-related, give us an opportunity to learn more about North Star and its products.

Application software for budget

## It's Your Newsletter — What Do You Want To See In NorthWinds?

This month, we want to find out what you think about *NorthWinds*. What do you like about the format? Do you want to see other features added? Is *NorthWinds* great just the way it is? Let us know by taking a few minutes to fill in the short questionnaire inside. Once you've filled it out, please put it in the box marked *NorthWinds* (in the cafeteria or by the employee entrance on Farallon). The results will be seen in future issues.

Holiday Party News

Friday, December 10, is the date for this year's Holiday Party. The place is Goodman's Hall in Oakland's Jack London Square. Our spies have checked it out and tell us the food is great and there's plenty of room for dining *and* dancing!

Music this year will be provided by the Brothers Owen—a group that promises to please almost any musical taste.

More information on the Holiday Party will follow in future *NorthWinds*. Watch for it!
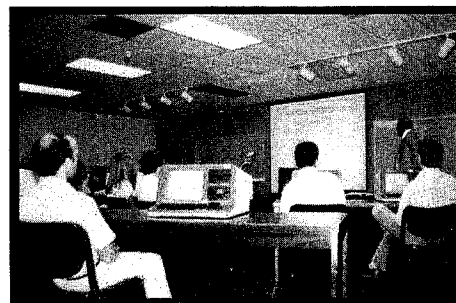
preparation (MicroPlan) and word processing (NorthWord and Word-Star) are only two of the classes being offered. If you want to learn InfoManager or more about the company's Marketing Strategies, sign up now for internal training. October's schedule looks like this:

October 26—WordStar
  (ADVANTAGE) .... 1 to 4 p.m.
October 27—CP/M .. 1 to 4 p.m.
October 28—MicroPlan
  (ADVANTAGE) .... 1 to 4 p.m.

For additional information or to register for a class, contact *Karen Schmidt* in Product Training at ext. 582.

Chuck's Corner

This month I thought it would be interesting to give a summary of the Executive Staff meetings—who, what, where, when and why.

Every Thursday, I hold an Executive Staff meeting with Mark, Bruce, Elliot, Larry, Lou and Surinder.

The purpose of this meeting is to effect communication among each of them, to make or communicate major decisions, to review the status of progress on major company projects, and to discuss future plans, policies, and directions.

The meeting starts with prepared presentations which are usually presented by an Executive Staff member, but occasionally may be presented by an invited manager. Examples of agenda items include: major new customer progress, new product overview, employee morale survey results, a product cost analysis, prior month's financials, revised pricing proposal, and new forecast.

Following the formal agenda, each member gives a department report to discuss progress and any problems in their areas. The meetings generally last for three to four hours, but we have had some eight hour marathons when necessary. The meetings are typically crisp and business-like, with moments of fiery controversy, and moments of humor as well.

Employee Luncheon Program is Back!

After taking a brief summer vacation, the **employee luncheon program** is back in full swing.

Employee luncheons are held away from the office. You'll enjoy lunch with one of North Star's senior staff members and co-workers from other departments. It's a positive setting for discussion of general concerns with management and an excellent chance to meet and talk with co-workers from other departments.

This long-standing activity has a two-fold purpose:
1) To promote a cooperative work environment through personal contact which would not ordinarily occur.
2) To learn about employee concerns which otherwise might not be communicated to top management.

All North Star employees can expect a future invitation. Look forward to it!

Telephone Tip

Ever hear a "beep" tone when you're on the telephone? You're not wearing a beeper. Is an extra-terrestrial trying to contact you? No—but *someone* is!

The short "beep" tone signals that the receptionist has a caller waiting to speak with you, or someone in-house has "parked" a call on to your extension.

To accept a camp-on call:

- Complete your first conversation and hang up. The camped-on call will *automatically* ring on your telephone.

To accept a camp-on call *and* maintain connection with your original party:

- After you hear the "beep" tone,
- Flash
- Receive a pulse tone and high-pitched holding tone,
- Key in: ★ 1

If you want to alternate between parties, simply "flash" and use the connect code— ★ 1

News Bits

- Three-year service anniversaries are being celebrated this month by **Howard Butler** (Order Processing), **Sandra Davis** (Order Processing), **Frank Kohzad** (Technical Support), and **Dennis Perry** (Quality Control). It's two years for **Connie Ducey** (Marketing), **Kathy Loram** (Technical Publications), **Joe Strople** (Engineering) and **Dave West** (Engineering Software). Congratulations!

- **Kaye Prothro** (Office Services) recently married Mack W. Robinson, Jr. Best wishes to the happy couple!

- **Library Alert!** Please remember that Building B's library is maintained for market research and that materials are borrowed on the honor system. Borrowed items should be returned within a reasonable period of time so that others can use them, too. And, please remember to replace items in the proper spot so the person after you will find it easily!

Department Feature—
Technical Services Supports North Star's Customers

Engineering, production, marketing, sales and shipping have all done their part: increasing numbers of HORIZONs, North Star ADVANTAGEs, other hardware and software went out the door last month to customers all over the world. Phew! Everyone pats each other on the back and starts thinking about how much we'll sell next month.

But the job's not really complete! This story begins **after** the product is sold.

North Star's customers—our Dealers, Distributors, and OEMs—buy products from North Star. They, in turn, sell them to end-users who run the products constantly for five or six years. Although we do a good job at North Star of designing, producing, shipping and selling our products, at some point in the product's life expectancy, the equipment or the user is going to need help. That's where Technical Services steps in. They provide "after care."

After care? Al Peterson, manager of North Star's Technical Services group, explains. "Somewhere down the line, the North Star end-user needs support from the seller. We help the sellers provide that necessary support to their customers," he said. "We help our customers work technical problems through to a satisfactory conclusion, either by

supplying technical information or by repairing a defective assembly. When we do this, we're making the customer happy—and helping to generate future product sales."

The Technical Services team is composed of two departments with distinct functions—Technical Support and Product Support. "Our mission," noted Al, "is to support North Star's customers *after* they purchase (and then sell) our product."

The Product Support Group services products returned from the customer, according to Manager Ray Detmer. "Our commitment is to repair the product within 30 days, but we generally turn them around in 15 to 20 days," he said.

Technical Services also provides technical advice to customers on the telephone. "Our group is the technical liaison between the customer and the rest of North Star," according to Stephen Kanzler,

Pictured above is the Technical Services team (in alphabetical order): Toni Andrews, Barry Bearden, Bob Bickford, Bob Cowart, Rosalie Cuevas, David Carvalho, Ray Detmer, Thang Doan, Sandy Ice, Frank Kohzad, Stephen Kanzler, Nabiullah Nabi, Emile Shaffer, Ron Swinhart, Susan Welsh and John Zitz. (Not pictured are Donna McDermott and Al Peterson.)

supervisor of Technical Support. His staff has doubled in the last six months, but so have the calls—to more than 500 a week!

In addition, Technical Services constantly interfaces with other North Star departments to provide valuable input during the new product development stage. Perhaps most importantly, Technical Services has a vital public relations role. They do their best to solve sometimes sticky problems, while maintaining North Star's positive image to the outside world. "We don't let them down," says Detmer. "We all take pride in being part of a team that our customers can count on."

"North Star's" Gear Up For New Season

Our softball team, the "North Star's," finished second during this summer's Oakland Softball Season. It was mighty close—the Bay Alarm team won the championship by only one run!

Undaunted, the "North Star's" are already gearing up for the new season and yet *another* championship by practicing Monday nights at Mosswood Field on MacArthur Boulevard.
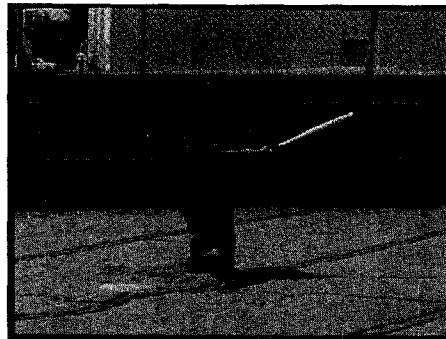
Cheer them on! Check HRD's bulletin board for the schedule. Or, if you're interested in joining the team, contact:

* **Beverly Miranda** (ext. 564)
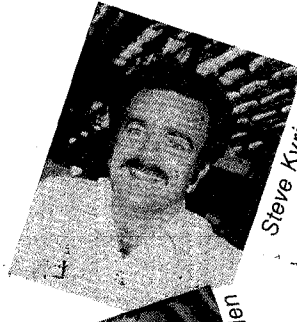   or
* **Callie McDaniel** (ext. 663).

What's Your Favorite Dessert?
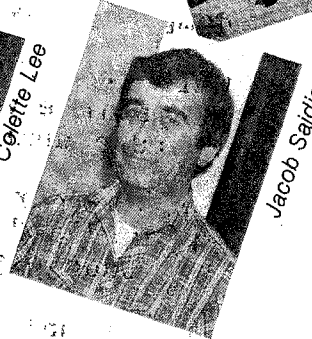
Bill Sanders (Purchasing)
Something with real rich chocolate and real rich coffee to go along with it!

Bonnie Johnston (Marketing Communications) *Oh, that's dangerous . . . it has to be Bud's coffee crunch ice cream. My second choice is cheesecake with strawberries.*

Brad West (Sales Administration) *My favorite dessert has to be beer—Anchor Steam or Dos Equis!*

Tim Morris (Finance) *My favorite—baked alaska.*

Jean Nava (Production) *Cheesecake with strawberries. I buy it at Nation's in Fremont.*

Bruce Baldwin (Warehouse) *I'd have to say my favorite dessert would probably be chocolate mousse.*

Steve Kyriacou (Shipping) *I would have to say german chocolate cake ice cream is my favorite. I find it at a gourmet deli in Dublin called Irby's.*

Barry Bearden (Technical Services) *My favorite dessert? I'd say strawberries flambe.*

Colette Lee (Engineering) *I love desserts, it's just a matter of picking one! My favorite is cheesecake with strawberries on it.*

Joseph Tesfamichael (Production) *Honey and ice cream are my favorites.*

Que Dang (Marketing) *Fruit. I eat a lot of fruit—bananas, oranges, tropical fruit. I don't like sweets a lot, they're fattening.*

Jacob Saidian (Engineering Hardware) *I like ice cream—all flavors.*