

If you own an Apple IIc, you'd have to add all this



to match the versatility, expandability and higher intelligence of the new Commodore 128

(and it costs less too).

The new Commodore 128™ personal And the new Commodore 128 has a computer is breakthrough technology at a breakthrough price. It outcapability, performance quality and price. It is expandable to 512K RAM while the IIc isn't expandable at all.

numeric keypad built right into its keyboard that makes crunching numbers shines the Apple® IIc in performance a lot easier. And the Commodore 128 has graphic and sound capabilities that far exceed those of the Apple IIc. But the most important news is that

the new Commodore 128 jumps you into a whole new world of business, productivity, education and word processing programs while still running over 3,000 programs designed for the Commodore 64.™ That's what we call a higher intelligence.

COMMODORE 128 PERSONAL COMPUTER

*Apple is a registered trademark of Apple Computer, Inc.

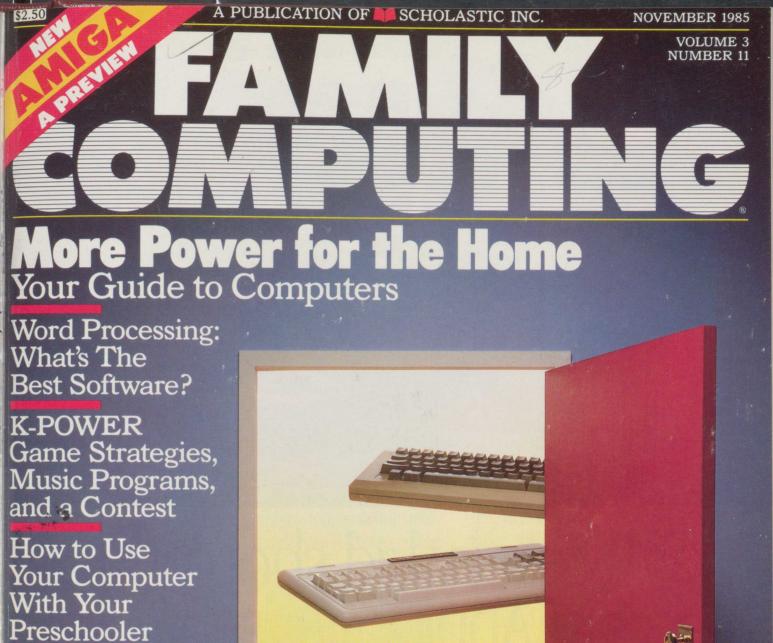
A Higher Intelligence

© Commodore 1985

A First:

Programs

Original Mac



ORIGINAL PROGRAMS FOR APPLE,

ATARI, COMMODORE 64/128, IBM PC/PCji

TRS-80 COLOR COMPUTER AND MODELS III & 4

PLUS: A BONUS ARCADE GAME

Apple Exhibit 4175

CBM2013-00020

24 Page 00001

AT-A-GLANCE

SOFTWARE

REVIEWS

Apple v. SightSound Technologies

VOLUME 3 NUMBER 11

FEATURES

BUYER'S GUIDE TO GENERAL-PURPOSE COMPUTERS

by Joe Gelman and Nick Sullivan

Our roundup of new and proven computers can help you choose the best machine for your education, entertainment, and business needs.

HOLIDAY HELPER

by Marlene Anne Bumgarner

Sit back and relax while your computer plans the menu, decks the halls, and spreads good cheer.

WORD PROCESSORS by Robin Raskin

New tools for the age-old task of writing. PLUS: A SAMPLER OF WORD-PROCESSING PROGRAMS FOR THE NOVICE AND THE PRO

THE NEW AMIGA

by John Jainschigg

A look at Commodore's newest arrival. Graphics, sound, and multitasking give this mousebased powerhouse a special personality. PLUS: A ROUNDUP OF AMIGA SOFTWARE

K-POWER

Attention Gamers: Here Comes Accolade!

An interview with the founders of a hot, new game-design company.

Game Strategy

Tips, tricks, and hints.

Microtones

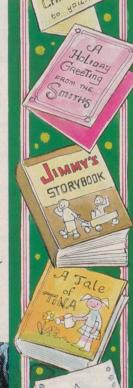
"The Nutcracker's" popular Dance of the Sugar-Plum Fairy goes hi-tech.

Compucopia

A little program for the big task of saving to disk.

Contest Stump Dr. Kursor with a problem.

Page 41



PROGRAMMING

THE PROGRAMMER

TIPS TO THE TYPIST

FUN/LEARNING PROGRAM

Test your vocabulary against a friend's and learn about computer logic with Word Wars. For ADAM, Apple & Macintosh, Atari, Commodore & VIC-20, IBM PC & compatibles, TI-99/4A, and TRS-80 CoCo & Models III & 4.

ARCADE GAME

You'll need fast reflexes and nerves of steel to beat Get 'Em. For ADAM, Apple & Macintosh, Atari, Commodore, IBM PC & compatibles, and TRS-80 CoCo & Models III and 4.

FEATURE PROGRAM

Put your files on a disk with Home Information Manager, a mini-data-base program for the Apple.

NEW PRODUCTS

SOFTWARE GUIDE AND REVIEWS

Twenty-four at-a-glance reviews.

EDITOR'S NOTE

DEPARTMENTS

LETTERS

HOME/MONEY MANAGEMENT

by Robin Raskin Computerize your family

medical records.

TELECOMPUTING

bu Robin Raskin

Shopping online: Let your computer do the walking.

25 HOME-SCHOOL CONNECTION

by Christine Z. Cataldo

The computer and your preschooler. PLUS: TRIED-AND-TRUE SOFTWARE

GAMES

by James Delson

Pretzels and popcorn fun.

COMPUTING CLINIC

106 CLASSIFIED

ADVERTISERS' INDEX

FAMILY COMPUTING (ISSN 0738-6079) is published monthly by Scholastic Inc., 730 Broadway, New York, NY 10003. Subscriptions: in the U.S. and possessions. 12 Issues for \$19.97; outside the U.S. add \$6 (surface mail) or \$25.97 (airmail). Office of publication: 351 Garver Rd., P.O. Box 2700, Monroe, OH 45050-2700. Secondclass postage paid at Monroe. OH 45050-9998 and additional offices. POSTMASTER: Send address changes and notice of undelivered copies to FAMILY COMPUTING, P.O. Box 2511, Boulder, CO 80302. Printed in U.S.A. Copyright © 1985 by Scholastic Inc. All rights reserved.

COVER PHOTOGRAPH BY WALTER WICK Page 49

THOMSON

Model CM 31311SI. 12" diagonal, .3lmm dot pitch RGBI color monitor with text switch and

To those of you who stare and stare—and stare

remarkable colors and print-like text. Thomson builds

a full line of monitors, from basic monochrome to high-resolution color models. All are designed to fulfill your

Thomson monitors are designed and built by Thomson, a \$6 billion international corporation. They're going to

monitor, or call 1-213-821-2995, ext. 38, for the Thomson dealer nearest you. Then take a stare at a Thomson

needs today, and sophisticated enough to fulfill your

at computers, blessed relief has arrived. Thomson™

monitors. We promise clearer, crisper resolution,

change the way America looks at computers. Ask your local computer dealer for a Thomson

monitor. It's a sight for sore eyes.™

needs in the future.







Page 00002

EDITOR'S NOTE

THE THINKING SEASON

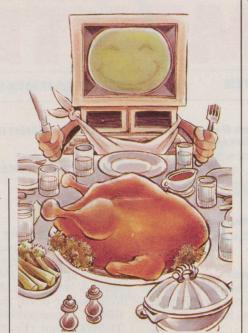
Despite all the fuss about last-minute shoppers, this holiday season actually is a time of planning and thinking. Card lists. Gift lists. Guest lists and menus. It seems endless. But for these special once-a-year festivities, it's important to get things right.

In recent years, the computer has become one of the most popular new gifts of the season. And, of all the gifts I can think of, it's the one that requires the most thought and planning. A computer is not a good impulse buy. There's probably even a direct correlation between prepurchase planning and postpurchase satisfaction.

That's why we're running our "Buyer's Guide to Computers" (page 35) this issue: to give you more time to think and plan, and a greater chance that you'll be satisfied with your purchase. The choices before consumers this year represent a departure from the past. New computer models boasting more power at reasonable prices complicate decision-making and raise a bevy of new questions to consider before taking out your checkbook or credit card.

In this issue, we're delivering on our promise to readers of increased coverage of the Macintosh, the first of those new computers. You'll find both original programs for the Mac (page 55) and more Mac software reviews than usual (page 93). Although Apple continues to direct the Mac to the business community, our mail and our sources indicate that a large number of Macs sold are making their way into the home.

For computer owners with the



wherewithal to start planning now for the weeks ahead, I recommend our Telecomputing article about online shopping (page 16) and "Holiday Helper," our piece on preparing for the holidays—computer-style (page 41).

My own mission for the holidays is to find the most personal, original ways to express and demonstrate my feelings and appreciation to people who mean the most to me. A lot of them are my fellow staff members on FAMILY COMPUTING. They've been planning, for what seems like forever, ways to make your holidays special. We hope you enjoy our efforts as much as we did creating the results.

Most of all, we hope your holidays start with a lot to be thankful for. May you have the happiest of Thanksgivings.

Claudia Core

CLAUDIA COHL EDITOR-IN-CHIEF

SCHOLASTIC INC. CORPORATE:

Maurice R. Robinson, founder, 1895-1982 PRESIDENT, CHIEF EXECUTIVE OFFICER, AND CHAIRMAN OF THE BOARD: Richard Robinson VICE-CHAIRMAN OF THE BOARD EMERITUS: Jack K. Lippert



NATIONAL ADVISORY COUNCIL: Dr. Sidney P. Marland, Jr., chairman, former superintendent of schools and U.S. Commissioner of Education ● Dr. Gregory Anrig, president, Educational Testing Service ● Elaine Banks, past president, National Association of Elementary School Principals ● Michael J. Guerra, executive director, secondary schools, National Catholic Educational Association ● Dr. Lola Jane May, mathematics consultant, Winnetka, Illinois, public schools ● Dr. Wilson Riles, former superintendent of public instruction, State Department of Education, California ● Dr. Richard Ruopp, president, Bank Street College of Education, New York, New York ● Patsy R. Scales, library and media specialist, Greenville (South Carolina) Middle School ● Elaine Steinkemeyer, president, The National PTA

FAMILY ® COMPUTING

730 Broadway, New York, NY 10003 (212) 505-3580

EDITOR-IN-CHIEF: Claudia Cohl DESIGN DIRECTOR: Vincent Ceci

EDITORIAL

SENIOR EDITORS: June Rogoznica, Nick Sullivan
MANAGING EDITOR: Roxane Farmanfarmaian
REVIEWS EDITOR: David Hallerman
ASSISTANT EDITOR: SUZETTE HARVEY
COPY AND RESEARCH ASSISTANTS: Karen Kane,
Elizabeth Oakes
ADMINISTRATIVE COORDINATOR: Barbara Schultz
ADMINISTRATIVE ASSISTANT: Minerva Jimenez
CONTRIBUTING EDITORS: Jeffrey Bairstow,
James Delson, Peter Favaro Ph.D., Karla Fisk,
Charles H. Gajeway, Sarah Kortum,
Anne Krueger, Tony Morris, Robin Raskin
K-POWER ASSISTANTS: David Langendoen,
Damon Osgood, Alex Shakar

ART

DESIGN ASSOCIATE: James C. Montalbano DESIGN ASSISTANTS: Doreen Maddox, Susan Taylor, Stephen E. Wilcox

TECHNICAL

TECHNICAL DIRECTOR: Lance Paavola
TECHNICAL EDITOR: John Jainschigg
ASSOCIATE TECHNICAL EDITOR: Joey Latimer
ASSOCIATE TECHNICAL EDITORILAB SUPERVISOR:
Steven C.M. Chen
TECHNICAL ASSISTANTS: Maureen Bruno,
Susan Easum, Howard Kong

PUBLISHING

PUBLISHER: Shirrel Rhoades
CONTROLLER: Robert H. Bellone
PRODUCTION MANAGER: David J. Lange
CIRCULATION DIRECTOR: Deede Dickson
CIRCULATION MANAGER: Steve Aster
CIRCULATION ANALYST: Robin Andrews
PROMOTION/PRODUCTION COORDINATOR: Patricia Neal
CUSTOMER SERVICE REPRESENTATIVE: Maria Giresi
ASSISTANT TO THE PUBLISHER: Elizabeth Monaghan

ADVERTISING SALES OFFICES

ASSOCIATE PUBLISHER:
Paul W. Reiss (212) 505-3585

ASSOCIATE ADVERTISING DIRECTOR:
Bruce Gardner (212) 505-3588

EASTERN REPRESENTATIVE:
Jonathan Wolpert (212) 505-3628

SOUTHWESTERN REPRESENTATIVE:
Jim Bender
12011 San Vicente Blvd., Suite 302
Los Angeles, CA 90049

(213) 471-3455

NORTHWESTERN REPRESENTATIVE: Pamela Taylor 385 Sherman Ave., Suite 1 Palo Alto, CA 94306 (415) 322-1015

MARKETING CONSULTANT:
Michael H. Tchong (212) 505-3586

NATIONAL SALES ASSISTANT: Susan Pienkos (212) 505-3630

RESEARCH/PROMOTION ASSISTANT: Millicent Callender

TELEMARKETING DIRECTOR:
Greg Rapport (212) 505-3587
TELEMARKETING REPRESENTATIVES:

TELEMARKETING REPRESENTATIVES: Carol Graziano (212) 505-3620 Sharon E. Sullivan (212) 505-3629 Megan Van Peebles (212) 505-3636

NEED SUBSCRIPTION ASSISTANCE?

Please send change of address to FAMILY COMPUTING, P.O. Box 2511, Boulder, CO 80302. For other problems, call (800) 525-0643 and please have a copy of your canceled check and mailing label handy.

A new set of crayons for children of the computer age.

ColorMe nurtures creativity with child's play.

A child's imagination needs little more than tools and encouragement to flourish. That's why Mindscape created ColorMe: The Computer Coloring Kit.

Every child can shine with ColorMe. Kids from the age of four and up can compose pictures without previous artistic or computer

paste options using predrawn pictures.

ColorMe gives every artist room to grow.

With ColorMe, kids can draw, color, and print their own creations. Text can be integrated to create original stories. The room for creativity is limitless.

ColorMe Picture Disks make this predrawn and ready to "cut and paste" for added color, excitement and fun.

You can even take the ColorMe Supply Box with adhesive-backed paper for stickers, colored papers, buttons, cards, envelopes, and a binder for original coloring books.



experience. The program disk can be used alone or with one or more optional picture disks for hours of freehand drawing and thousands of cut and

coloring kit extra special. Choose from Rainbow Brite,™ Shirt Tales,™ Hugga Bunch,™ and TINK! TONK!.™ These popular characters are

ColorMe. The creative computer coloring kit.

Open a new world of excitement for your child.

ColorMe does more than crayons ever could. So ask your software

dealer for a demonstration. Then take home the fun.

ColorMe is available on: Apple® and Commodore®

Mindscape of tware that challenges the Pmind.



Mindscape, Inc. 3444 Dundee Road, Northbrook, Illinois 60062

1-800-221-9884. (In Illinois 1-800-942-7315)

Copyright © 1985. Mindscape. Inc. All Rights Reserved. Apple and Commodore are registered trademarks of Apple Computer Inc. and Commodore Business Machines. Rainbow Brite. Shirt Tales and Hugga Bunch are trademarks of Hallmark Cards Inc. TINKITONK! is a trademark of TINK TONK. INC. Mindscape is a trademark of Mindscape, Inc.

TELECOMPUTING

SHOPPING IN ELECTRONIC STORES Sick of Crowds? Tied Up at Work? Want to Compare Prices? Go Online and Browse.

Online shopping lets your fingers do the walking-at the computer keyboard instead of in the Yellow Pages. Stereos, best-selling books, vacations, gourmet chocolates, appliances, drugs and cosmetics, even satellite dishes can be investigated and ordered using your personal

For those with little patience for salespeople, miles of aisles, and a commute to the local store, shopping via computer is a blessing. For others, it's an expensive gimmick, partly because you can't view the goods before purchasing, and partly because of the intricacies and costs of using online services.

SHOPPING GEAR

Online shopping services are generally accessible through information networks, though some can be accessed directly. You need a computer, a modem, telecommunications software, and membership with a shopping or information service (see listings).

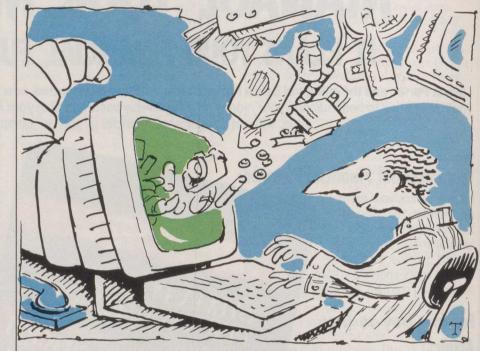
Twenty-four hours a day, seven days a week, these "electronic stores" display their inventory of goods. You can browse and buy through a series of choices from simple menus.

"It's a cheaper and a more convenient way to shop for me," says Allison Davis, a writer/producer on NBC's "Today" show. "I'm a catalog shopper anyway; I don't like stores much," she says, adding, "The computer has taken away all the worry.'

Davis, who also banks by computer, says she sits down once a month to do that and her shopping. She bought her mother a VCR last Christmas that way, sent gifts to friends and relatives, and saved \$40 on a television for her father-in-law.

James West, a 26-year-old engineer from Stamford, Connecticut, is another online shopping fan. "I love it," he says. "I've bought software, tools, and researched television prices online. I compare prices with local discount stores.

Contributing editor ROBIN RASKIN'S last article was "Upgrading" in the June 1985 FAMILY COMPUTING



West says he only regrets not being able to view or get very detailed product specifications of the item offered online. Davis, who recently moved into a new house, adds that she is scared to buy silverware online because she's not sure how it will look in her dining room.

TECHNIQUES

Online shopping requires the cultivation of new skills-much the same as those used for searching through any large data base. You proceed through screen menus to find a specific store or item—to return to the same spot at a later visit, you'll need to remember where it was in the menu system. It's initially as confusing as a visit to a large department store, but electronic shopping gets easier once you learn the

Typically, after logging onto the system, you see a main menu that lists goods by product category or retailer. In either case, you can browse through the selections. For instance, the main menu on Comp-u-store On-Line, which you can access through various information services, lets you choose from such categories as appliances, cameras and accessories, sporting goods, etc. At that point you can comparison shop among name brands.

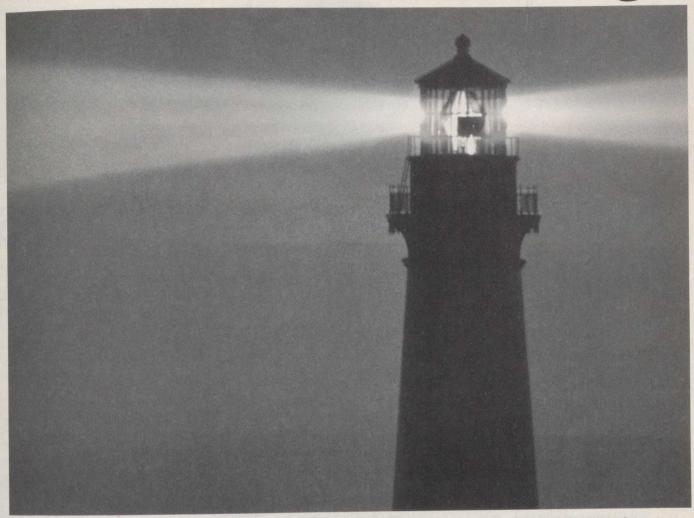
Other services (such as Compu-Serve's Electronic Mall) list individual retailers, such as Waldenbooks or Record World, and their offerings. To place an order, you select an item and then complete an online order form detailing payment (usually credit card, sometimes check) and shipping information.

CONSUMER EDUCATION

Online shopping can provide a good education in consumer goods. Using Comp-u-store, I got a sense of the price spectrum for new ovens much more easily than I could have by studying newspapers. I also learned about the benefits and disadvantages of convection ovens on Comp-u-store's hotline, an online consumer report that looks at specific products.

Probably the main advantage of online shopping is the ability to research a product category you're interested in. As with any large data base, you can access the product information you want when you need

The Source Is Illuminating.



At last, a beacon to help you navigate the vast sea of personal computer technology. can find it faster on The Source. With a

It's The Source. The online information service that can guide you to the best deals in the PC market. Shed light on your software problems. And signal the latest developments

With The Source, you can buy, sell or swap hardware and software. Learn new applications from a Special Interest Group. See what's been written about the printer you're planning to buy. Or send out an SOS to thousands of other PC users when you need advice.

What's more, The Source can enlighten you with current information on everything from business to travel, investments to world news.

The Source is a service mark of Source Telecomputing Corporation, a subsidiary of The Reader's Digest Associatio Inc. \bigcirc 1985 Source Telecomputing Corporation.

Whatever kind of help you're after, you system of easy commands and menus. Plus a tutorial—free of online charges—that'll bring you up to speed in a snap.

To sign up today, call 1-800-336-3366. For more information, mail this coupon, or visit vour nearest dealer.

Then, no matter how many waves of new technology rock your boat, you'll stay right on course.



Please send more information about The Source.

Mail to: Source Telecomputing Corporation, P.O. Box 1305, McLean, VA 22102. In Virginia, or outside the U.S., call (703) 821-6666.



SOME HISTORIC BREAKTHROUGHS DON'T TAKE AS MUCH EXPLAINING AS COMPUSERVE.

But then, some historic breakthroughs could only take you from the cave to the tar pits and back again.

CompuServe, on the other hand, makes a considerably more civilized contribution to your life.

It turns that marvel of the 20th century, the personal computer, into something useful.

Unlike most personal computer products you read about, CompuServe is an information service. It isn't software. It isn't

hardware. And you don't even have to know a thing about programming to use it. You subscribe to CompuServe—and 24 hours a day, 7 days a week, it puts a universe of information, entertainment and communications right at your fingertips.

A few of the hundreds of things you can do with CompuServe.

COMMUNICATE

EasyPlex™ Electronic Mail lets even beginners compose, edit, send and file messages the first time they get online. It puts friends, relatives and

business associates—anywhere in the country—in constant, convenient touch.

CB Simulator features 72 channels for "talking" with thousands of other enthusiastic subscribers throughout the country and Canada. The chatter

is frequently hilarious, the "handles" unforgettable, and the friendships hard and fast.

More than 100 Forums welcome your participation in "discussions" on all sorts of topics. There are Forums for computer owners, purmet cooks veterinarians pilots.

gourmet cooks, veterinarians, pilots, golfers, musicians, you name it! Also, Electronic Conferencing lets businesses put heads together without anyone having to leave the shop.

Bulletin Boards let you "post" messages where thousands will see them. You can use our National Bulletin Board or the specialized Bulletin Boards found in just about every Forum.

HAVE FUN

Our full range of games includes
"You Guessed It!", the first online
TV-style game show you play for real
prizes; and MegaWars III, offering the

A to Z Travel/New
provides the latest
complete informat
hotels worldwide.

ultimate in interactive excitement. And there are board, parlor, sports and educational games to play alone

or against other subscribers throughout the country.

Movie Reviews keep that big night at the movies from being a five star mistake.

SHOP

THE ELECTRONIC MALL™ gives you convenient, 24-hour-a-day, 7-day-a-week shopping for name brand goods and services at discount prices from nationally known stores

SAVE ON TRIPS



and businesses.

Travelshopper s™ lets you scan flight availabilities (on virtually any airline — worldwide), find airfare bargains and order

tickets right on your computer.

Worldwide Exchange sets you up with the perfect yacht, condo, villa, or whatever it takes to make your next vacation a vacation.

A to Z Travel/News Service provides the latest travel news plus complete information on over 20,000 hotels worldwide.

MAKE PHI BETA KAPPA

Grolier's Academic American Encyclopedia's Electronic Edition delivers a complete set of encyclope-

dias right to your living room just in time for today's homework. It's continuously updated ... and doesn't take an inch of extra shelf space.

The College Board, operated by the College Entrance Examination Board, gives tips on preparing for the SAT, choosing a college and getting financial aid.

KEEP HEALTHY

Healthnet will never replace a real, live doctor—but it is an excellent and readily available source of health and medical information for the public.

Human Sexuality gives the civilization that put a man on the moon an intelligent alternative to the daily

BE INFORMED

Hundreds turn to it for real answers.

"Advice to the Lovelorn" columns.

All the latest news is at your fingertips. Sources include the AP news wire (covering all 50 states plus



national news), the Washington Post, USA TODAY Update, specialized business and trade publications and more. You

can find out instantly what Congress did yesterday; who finally won the game; and what's happening back in Oskaloosa with the touch of a button. And our electronic clipping service lets you tell us what to watch for. We'll electronically find, clip and file news for you...to read whenever you'd like.

INVEST WISELY

Comprehensive investment help just might tell you more about the

stock you're looking at than the company's Chairman of the Board knows. (Don't know who he is? Chances are, we can fill you in on that,

too.) CompuServe gives you complete statistics on over 10,000 NYSE, AMEX and OTC securities. Historic trading statistics on over 50,000

stocks, bonds, funds, issues and options. Five years of daily commodity quotes. Standard & Poor's. Value Line. And more than a dozen other investment tools.

Site II facilitates business decisions by providing you with demographic and sales potential information by state, county and zip code for the entire country.

National and Canadian business wires provide continuously updated news and press releases on hundreds of companies worldwide.

GET SPECIALIZED INFORMATION

Pilots get personalized flight plans, weather briefings, weather and radar maps, newsletters, etc.

Entrepreneurs use CompuServe too for complete step-by-step guidelines on how to incorporate the IBMs of tomorrow.

Lawyers, doctors, engineers, military veterans and businessmen of all types use similar specialized CompuServe resources pertinent to their unique needs.

And now for the pleasant surprise.

Although CompuServe makes the most of any computer, it's a remarkable value. With CompuServe, you get low start-up costs, low usage charges and local phone-call access in most major metropolitan areas.

Here's exactly how to use CompuServe.

First, relax.

There are no advanced computer skills required.

In fact, if you know how to buy breakfast, you already have the know-how you'll need to access any subject

in our system. That's because it's "menu-driven," so beginners can simply read the menus (lists of options) that appear on their screens and then type in their selections.

Experts can skip the menus and just type in "GO" followed by the abbreviation for whatever topic they're after.

In case you ever get lost or confused, just type in "H" for help, and we'll immediately cut in with instructions that should save the day.

Besides, you can either ask questions online through our Feedback service or phone our Customer Service Department.

How to subscribe.

To access CompuServe, you'll need a CompuServe Subscription Kit, a computer, a modem to connect your computer to your phone, and in some cases, easy-to-use communications software. (Check the information that

modem.)
With your Subscription Kit, you'll receive:

comes with your

■ a \$25 usage credit.

- a complete hardcover Users Guide.
- your own exclusive user ID number and preliminary password.
- a subscription to CompuServe's monthly magazine, Online Today.

Call **800-848-8199** (in Ohio, 614-457-0802) to order your Subscription Kit or to receive more information. Or mail this coupon.

Kits are also available in computer stores, electronic equipment outlets and household catalogs. You can also subscribe with materials you'll find packed right in with many computers and modems sold today.

Please send me additional informa	ation.
Please send me a CompuServe Sul	oscription Kit.
l am enclosing my check for \$39.9 handling. (Add sales tax if delivered)	5, plus \$2.50 ed in Ohio.)
Please make check payable to Cor Information Services, Inc.	npuServe
Charge this to my VISA/MasterCar	rd
#	
Expiration Date	
Signature	
Name	
Address	1
City	
State Zip	
MAIL TO:	
CompuSe	PTIP
	TVC
Customer Service Ordering Dept.	
Columbus, Ohio 43260	PRI-911
An H&R Block Company EasyPlex and ELECTRONIC MALL are tradema	arks of CompuServe,
Incorporated. Travelshopper is a service mark of	
	1 age 00003

CIRCLE READER SERVICE 8

TELECOMPUTING

it. For instance, you can check prices on new cars, or ask for a listing of all 19-inch color televisions with remote control and stereo broadcast capabilities that sell for less than \$500. That's information you couldn't get by walking into most stores.

In some cases, you can even leave electronic mail for store or product representatives and ask for more details.

GOOD DISCOUNT PRICES

Another advantage of online shopping is low prices. Manufacturers have no advertising costs, sales staffs to pay, or storefront rent. Electronic "stores" don't need to stock

inventory, since the products are usually available directly from the manufacturer. All this can translate into lower costs for customers.

The online shopping services boast anywhere from 25 to 60 percent savings over conventional retailers. I found the online prices similar to those in most mail-order catalogs and discount houses, but occasionally they were higher. However, even if you don't have time to bargain hunt around town, you can still be reasonably sure you're getting close to rock-bottom prices on most goods you buy electronically.

Unfortunately, you can't judge the cost of online shopping by the price of the item alone. Depending on

your communications skills and the speed of your modem, "foraging" costs can add up. First, you need to subscribe to an information service (though it's probably not worth joining for the shopping feature alone) and sometimes you'll have to pay an additional membership fee. Then you pay "connect time" (i.e., the time you spend online).

Many people, depending on where they live, must also either make long-distance calls or use a computer-communications network like Telenet or Tymnet, which charge \$10 an hour daytime, \$2 an hour nights and weekends, to get online.

If you shop at 300 baud, as I did, you can get frustrated waiting for the menus to unfold. You slow down further if you enter the wrong "shopping aisle" and then must backtrack to a previous menu. Searching for product information online can take hours, when often a phone call or a store visit would be cheaper, faster, and more productive.

In a "real" store, browsing and ordering don't cost anything. Online expenses are also likely to be higher than car or bus fares and parking.

ONLINE SHOPPING SERVICES

American Express® Advance, American Express Travel Related Services Co., Inc., Interactive Services, American Express Plaza, New York, NY 10004; (800) 327-2177.

The service offers products from the American Express catalog and subscriptions to 150 popular magazines.

Cost & Access: Available only to American Express cardholders. No fee for use. Access via CompuServe (address below) and Dow Jones/ News Retrieval (P.O. Box 300, Princeton, NJ 08540; [800] 257-5114; [609] 452-1511). Payment by American Express card.

Comp-u-store On-Line, 707 Summer St., Stamford, CT 06901; (800) 843-7777.

Founded in 1982 as a division of Comp-U-Card, the nation's largest electronic merchandising service, Comp-u-store has over 31,000 members who choose from 60,000 items listed by product category or feature.

Comp-u-mall, from the same company, lists those goods by retailer, including Saks Fifth Avenue, Neiman-Marcus, Hickory Farms, and Omaha Steaks.

Cost & Access: \$25 annual fee for purchasing members, but anyone with a subscription to CompuServe, Dow Jones/News Retrieval or The Source can browse without buying. There is no membership fee for the first year through Dow Jones/News Retrieval. Direct access (without going through an information service) costs \$18 an hour weekdays, and \$5 an hour nights and weekends. Payment by credit card or check.

The Electronic Mall, Compu-Serve, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220; (614) 457-8650; (800) 848-8990.

The Electronic Mall, a joint venture of CompuServe and L.M. Berry, publisher of the Yellow Pages, lists about 80 merchants, including Sears Roebuck, Waldenbooks, and Record World.

Cost & Access: No fee for service. Available through CompuServe, the start-up kit costs \$39.95. Access charges are 10–21 cents a minute nights and weekends for 300/1200 baud, and 20–25 cents a minute primetime for 300/1200 baud. Payment by credit card.

OTHER NETWORK OFFERINGS

CompuServe (see address above). Includes Fifth Avenue Shopper (features goods from leading shops and boutiques); MicroShoppe (microcomputer supplies and accessories); New Car Showroom (new car prices); Prime Time Radio Classics (old radio programs on cassettes); Savings Scan (30 percent to 70 percent savings on selected items); and Travelshopper (offers information on airline routes and prices, and lets you buy tickets).

Delphi, 3 Blackstone St., Cambridge, MA 02139; (617) 491-3393.

Grapha Com On-line sells computer hardware, software, copiers, and office furniture at discount prices; Wine On-Line sells wine, books, and accessories.

The Source, 1616 Anderson Road, McLean, VA 22102, (800) 336-3366; (703) 734-7500.

Music Source sells records and tapes from K-Tel.

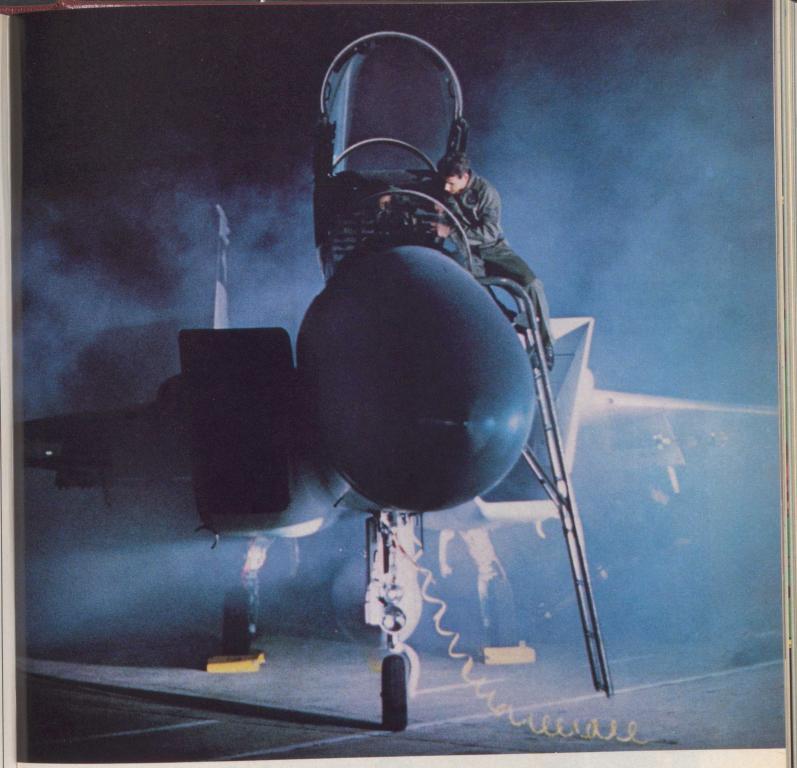
WORTH A THOUSAND WORDS

Online shopping services are entirely text-based. They rely on words to describe products, which is not how most people are used to shopping. You don't see the products live or with photos. (Comp-u-store, however, does send brochures to customers, much like a direct-mail house.) And when you shop for an item such as a television, you want to see what the picture looks like, not just read a measurement giving screen size.

"Simply put, electronic shopping requires trust," says David Rothman, author of *Silicon Jungle* (Ballantine Books, 1985). "And you can't trust characters on a green screen the way you can a human voice" or picture, he adds.

Unless you're already familiar with a specific product or category, online shopping is a good way to do research—but not necessarily to buy. "I even thought about ordering a car online," says Davis, "but that was too much!"

And when you do order the goods, there's no guarantee you'll get them quickly. In this sense, you have no electronic advantage over foot-weary mall-goers. Even though your order is theoretically placed with the man-



We'll pay you to take the most exciting classes anywhere.

You'll learn electronics, avionics, aircraft maintenance, health care sciences, management or logistics—the Air Force will train you in one of more than 200 technical specialties America needs today.

You'll get hands-on experience with the latest equipment, and we'll pay 75% of your tuition for off-duty college courses, to get you even further.

Whatever your goals, the Air Force will equip you with the skills to get where you want to be.

If you're looking seriously into your future, Aim High to a future in the Air Force. Visit your Air Force recruiter today or call toll-free 1-800-423-USAF (in California 1-800-232-USAF).

TELECOMPUTING

ufacturer immediately, your purchase will arrive anywhere from one to four weeks later. The products I ordered took even longer. So shopping in advance for special occasions is still necessary.

Finally, you may encounter petty annoyances or feel you've been led astray. In CompuServe's Electronic Mall, for example, you can make a menu choice to "enter" Bloomingdale's, a potential treat if you don't live near an outlet. But, once there, all you can do is order a catalog.

A COMPELLING WAY TO SHOP

Despite all these drawbacks, shopping online is still compelling. Hours fly by like minutes when I explore the many electronic stores.

After I learned my way around and saw what was available, I saved money, time, and untold aggravation by shopping online. I also gained access to important price-comparison information. In an hour on Compu-Serve, I ordered a best-selling book, hard-to-find children's records, and some fancy croissants for my parents' anniversary. This would have taken a full day using traditional shopping avenues.

Computer shopping has started to catch on, but not as quickly as many thought it would. It's still in its infancy as a valid consumer service. As modems transmit information faster, and videotex services begin to merge graphics with text. computer shopping will probably blossom. Until then, the shopping 'pioneers" are forging the way.

APPLE EXECUTIVE LIVE IN CONFERENCE

Dave Coté, consumer marketing manager at Apple, will be the guest at a live conference in the FAMILY COMPUTING Forum on Sunday, Nov. 24 to answer questions about Apple's NEWS products (see "Buyer's Guide" in this issue).

FAMILY COMPUTING'S Forum on CompuServe (GO FAM 200) is operated via modems supplied by Hayes Microcomputer Products, Inc.

You can leave messages for FAMILY COMPUTING there or on The Source (TI5483).

Now there's a way parents can help their children climb to the heights of success.

It begins with an Apple,® IBM,® Commodore™ or Atari® computer. It takes off with CBS Software.

Our Success with Math™ series has met with sales success second to none in its field. Along with our new Success with Algebra[™] series, your home computer will become a patient, private tutor—using serious drill and practice to help your children over the obstacles in their way.

Mastering the SAT has also become a best seller. With its counterpart, Mastering the ACT, it's the comprehensive test prepara-

tion program that's proven to be the first choice for thousands of students who want acceptance from their

first choice college. They are the only programs of their kind created with the National Association of Secondary School Principals. And they're designed to provide the competitive edge that can help put your kids over the top.

Making you the best.

IBM, Apple and Atari are registered trademarks of International Business Machines Corp., Apple Computer Inc., and Atari Corp., respectively. Commodore is a trademark of Commodore Electronics Ltd.

© 1985 CBS Inc. All rights reserved. CBS Software, A Unit of CBS Educational and Professional Publishing Division, CBS Inc. One Fawcett Place, Greenwich, CT 06836. (203) 622-2525.

YOU'RE INTERESTED IN GIVING YOUR CHILDREN THE BEST, CALL 1-800-CBS-ASK4 FOR THE DEALER NEAREST YOU.

CIRCLE READER SERVICE 5

RANDOM HOUSE

Software





GARFIELD®—New! "Eat Your Words" and "Double Dares," featuring everyone's



favorite wise guy.



editions to the Peanuts

"Math Matcher" &

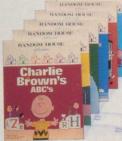
"Typing Is A Ball."

family: "Charlie Brown's

1, 2, 3's," "Snoopy Writer,"

APBA MAIOR LEAGUE PLAYERS BASEBALL Based on the popular APBA board game. Manage the pros with complete 1984 stats on 676 players on 2 disks.





MAKING MUSIC ON

BASIC computer pro-

gramming.

MICROS—The creative, musical approach to

MR. AND MRS. POTATO HEAD®—An

classic.

animated computer version of the children's



PEANUTS®—The original Peanuts programs, including "Charlie Brown's A, B, C's, "Snoopy's Skywriter Scrambler" and more.



ALPINE ENCOUNTER+

—A spy thriller graph-

ics and text adventure

program to challenge

the whole family.

PATCHWORKS+-

Design, edit and print

out dazzling patterns for

quilts and other creative



TOURNAMENT **BRIDGE—Competition** and practice for the serious bridge player



FIX IT—A construction set for the mind. Solve over 200 colorful brain teasers to set imaginative machines in motion.



HO! HO! HO! -5 family Christmas games at a special holiday price.



ALL THE BEST FROM OUR HOUSE TO YOUR HOUSE.

Visit your software dealer, or call 1-800-638-6460 (in MD, 800-492-0782). PEANUTS Characters: © 1950, 1952, 1958, 1960, 1968, 1971, United Feature Syndicate, Inc.; GARFIELD: © 1978, United Feature Syndicate, Inc.; MR. & MRS. POTATO HEAD: © 1985 Hasbro, Inc.; † Graphics created with Penquin Software's ** Graphics Magician. * © 1985 Random House, Inc. All rights reserved.

CIRCLE READER SERVICE 36