JANUARY 1986 VOL. 11, NO. 1

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ROBOTICS



Next to your computer,





nothing beats a Tandy printer.



Tandy printers make fine print quality, graphics and high performance affordable.

For the best value and selection in printers, shop Radio Shack Computer Centers. Match any of these top-quality printers with your Tandy, IBM[®] PC or PC-compatible computer^{*}.

Low-Cost Business Printer

The DMP 430 (26-1277, \$899) is a dot-matrix printer with an 18-wire print head that delivers superior correspondence characters. Choose from micro, italic and double-high fonts, as well as bit-image graphics. In the draft mode, DMP 430 prints 180 characters per second.

Triple-Mode Personal Printer

The low-cost, versatile DMP 130 (26-1280, \$349.95) lets you choose from word processing or data processing modes, as well as dot-addressable graphics.



Inquiry 303

Prints in four character styles: standard or italic cursive in draft or correspondence modes.

Budget-Priced High Performer

The DMP 105 (26-1276, \$199.95) is the low-cost solution for data processing and general-purpose use. Features a bit-image graphics mode, too. Prints 80 characters per second in the draft mode.

Dot-Matrix Power for Business

Get high speed and high performance with the

DMP 2200 (26-1279, \$1695). The draft font prints at an outstanding 380 characters per second. For correspondence, the near letter-quality mode delivers 90 characters per second. That's faster than most daisywheel printers.

*DMP 105 requires optional-extra IBM Printer Emulator (700-2118, \$29.95) for IBM compatibility. Prices apply at Radio Shack Computer Centers and at participating stores and dealers, IBM/Registered TM International Business Machines Corp.

FEBRUARY 1986 VOL. 11, NO. 2

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BUJJE THE SMALL SYSTEMS JOURNAL

TEXT PROCESSING



The New Tandy 3000

The difference is power ...and affordability.

Introducing the Tandy 3000, the affordable alternative to the IBM[®] PC/AT. Here's the power you need to manage your business, to network computers, or to create a multiuser system.

Unmatched Compatibility

The Tandy 3000 uses the advanced MS-DOS 3.1 operating system. And since the Tandy 3000 is compatible with programs designed for the PC/AT, as well as the PC/XT, it cuts through today's software confusion. Choose from thousands of powerful applications.

Power to Share

The Tandy 3000 is designed to use the forthcoming XENIX 5.0 multiuser operating system. Two to six people in an office can use the 3000 simultaneously with low-cost data terminals.

Network Readiness

In offices already equipped with MS-DOS computers, the Tandy 3000 is the link that brings them all together. Using our ViaNet local area network, the Tandy 3000's high-speed throughput is available to all network users.

High-Performance Design

The Tandy 3000 (25-4001, \$2599) features an Intel® 80286 microprocessor that operates at twice the speed of the industry standard, 512K main memory (expandable to 640K on the main board), a highcapacity 5¹/₄" floppy disk drive, a serial/parallel adapter and ten expansion slots. For maximum storage capacity, choose the Tandy 3000 HD (25-4010, \$3599) with a built-in 20megabyte hard disk drive.

Tandy . . . Clearly Superior™

High performance, compatibility, multiuser and networking capabilities, and remarkable expandability: the Tandy 3000 has the power to put you in command.

Available at over 1200 Radio Shack Computer Centers and at participating Radio Shack stores and dealers.





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THE SMALL SYSTEMS JOURNAL

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HOMEBOUND COMPUTING

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DeskMate[®] 7-in-1 software makes your Color Computer better than ever.

Now our popular DeskMate[®] software is available for disk-based Color Computers! DeskMate (26-3259, \$99.95) features seven popular personal-productivity programs—all on one disk! A general-purpose *TEXT* entry and editing program is ideal for writing correction-free letters, memos and short reports. *LEDGER*, a simple spreadsheet program helps you do budgeting, sales forecasting, profit-



CALENDAR

and-loss projections and other "What if ...?" calculations. Using the fourcolor *PAINT* picture editor.



LEDGER

ink-jet printer. The *INDEX CARDS* personal filing system lets you enter and edit data and perform simple sorts and searches. It's ideal for keeping track of

names and addresses. *TELE-COM* gives you access to national information services, plus transmits

vou can create

colorful charts,

graphs, designs

on your screen.

Print a copy on

a dot-matrix or

and "doodles"



INDEX CARDS

and receives files from other computers by phone (requires modem). A simple monthly calendar program displays "to

displays "to do's" for any date. *CALENDAR* is an easy way to organize your day. A four-function *CALCULATOR* is

also available within the operations



of any application. With Desk-Mate, you get the power of seven programs for one low price! Come in today.

TEXT EDITOR

If you don't already have a disk drive for your Color Computer, you can add one for just \$299 (26-3131). The 5¹/₄", thinline floppy drive plugs into your Program Pak[®] port for over 156,000 characters of storage. Add a second drive at any time, too.



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Number Crunching

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TANDY... Clearly Superior™



We edged out the competition with the Tandy[®] 1000, an IBM[®] PC compatible for only \$999—including software.

This is the one you've heard about. The Tandy 1000 is compatible with the IBM PC, for one of the widest selections of software available anywhere—you can choose from an astounding collection of popular MS-DOS[®] programs.

Get the DeskMate® advantage

Unlike the PC, the Tandy 1000 comes with its own software— DeskMate. It's word processing, spreadsheet analysis, filing, scheduling, telecommunications and electronic mail all on one disk*.

The high-capacity business machine

The Tandy 1000 is packed with all the features you demand. It comes with 128K RAM, expandable to 640K. Monochrome and color graphics adapters are built right in for easy hookup to a monitor. We offer both high-resolution monochrome and color monitors, plus a budget-priced color monitor. There's also a three-voice sound circuit, plus a built-in speaker for sophisticated sound and music generation. It's easy to augment your system with user-installable expansion boards, too.

The Tandy 1000 also comes with adapters to use a printer, joysticks and light pen. The Tandy 1000 also includes such "extras" as the industry-standard MS-DOS disk operating system and BASIC. These all cost extra on the IBM PC.

In business for business

When it comes to service and support, you'll find that Radio Shack is second to none. In-store training is conducted at over 300 Computer Centers nationwide. Low-cost delivery and set-up, new-user orientation, and on-site training are available in all major market areas.

Available nationwide

Come in and see the remarkable Tandy 1000 at your local Radio Shack today. You can get a "handson" demonstration of the 1000 and DeskMate. Or drop by a Radio Shack Computer Center and find out how your business can lease a Tandy 1000 system for only \$50 per month[†]. Come see how you can get the edge on *your* competition.

Radio Shack The Technology Store A DIVISION OF TANDY CORPORATION Inquiry 285

*DeskMate communications require an optional telephone modern. †Commercial lease for a Tandy 1000 and color monitor, plus applicable use/sales tax. Prices apply at Radio Shack Computer Centers and participating stores and dealers. Monitor not included. DeskMate/TM Tandy Corporation. IBM/TM International Business Machines Corp. MS-DOS/TM Microsoft Corp.

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MAY 1986 VOL. 11, NO. 5

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Storage Goes Optical



We edged out the competition with better solutions for every application.

Presenting the Tandy[®] line of PC-compatible computers

At Radio Shack Computer Centers, you won't find just any computer, you'll find the *right* computer.

The Tandy 1000 is America's *1 PC compatible

Looking for a complete, low-cost MS-DOS[®] system? The Tandy 1000 is compatible with the IBM[®] PC, so there are thousands of programs for you to choose from. Plus, the 1000 comes complete with its own DeskMate[®] 6-in-1 software.

The Tandy 1200—the PC/XT's "mirror image"

The Tandy 1200 works like an IBM PC/XT—but costs much less. The 1200 runs the same top-name software and supports the same hardware as the PC/XT. So if you're already using one or more IBM PC's in your office, the Tandy 1200 lets you expand for less—and continue using the same software.

The Tandy 2000 for advanced graphics and high performance

Searching for a high-powered computer with advanced graphics capabilities? Take a good look at the affordable Tandy 2000. The Tandy 2000 gives you the high-resolution graphics you need to create razorsharp graphs and diagrams in a brilliant array of colors.

The new Tandy 3000 for super power and compatibility

Introducing a powerful computer that's the affordable alternative to the IBM PC/AT. The Tandy 3000 has the power you need, and it's compatible with PC/AT and PC/XT software. And with the forthcoming XENIX[®] operating system, two to six users will be able to use the 3000 simultaneously.

Tandy . . . Clearly Superior™

Discover the power and affordability of the Tandy 3000 and all of our MS-DOS computers. Drop by your local Radio Shack Computer Center today. And while you're there, pick up a free copy of our new 1986 Radio Shack Software Reference and Tandy Computer Guide. Come in today!

Available at over 1200 Radio Shack Computer Centers and at participating Radio Shack stores and dealers.



DeskMate/Registered TM Tandy Corp. IBM/Registered TM International Business Machines Corp. MS-DOS and XENIX/Registered TM Microsoft Corp.

JUNE 1986 VOL. 11, NO. 6

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Computers and Music



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Radio Shack brings over 600 software programs within easy reach.

1986 Radio Shack Software Reference and Tandy Computer Guide

Over 600 programs listed by category and available off the shelf or through our Express Order service. Plus, 24 pages devoted to the complete line of Tandy computers and peripherals.

COMPUTER CENTERS

Now there's no more searching for the "right" program. The 1986 Radio Shack Software Reference and Tandy[®] Computer Guide is all you need for one-stop shopping. In it you'll find hundreds of programs for all types of computers everything from XENIX[®] and MS-DOS[®] lines to portables.

This catalog features the most comprehensive software selection available. Essential business programs such as accounting, database management, and business graphics are readily available as well as a variety of industry-specific programs for you to choose from programs for doctors, lawyers, farmers and other professionals.

And of course, there are dozens of programs and utilities specifically for programmers. We have advanced language development systems like *C Programming System* and *RM/COBOL*, plus powerful languages from Microsoft, like *Macro Assembler, XENIX Basic Interpreter* and *PASCAL Compiler.* You'll also find *GEM Desktop 1.2* and a multitude of operating systems. And you can add aditional <u>capability</u> to your portable com-

puter with *Bar Code Driver* or *Bar Code Writer*:

We offer you the software you need most—from personal productivity to a wide variety of training packages. And if it's not available in the store, we'll order it through our Express Order System.

So visit a Radio Shack Computer Center today—it's your one-stop software store.

Radio Shack The Technology Store" A Division of Tandy Corporation

MS-DOS, XENIX, Macro Assembler, XENIX Basic Assembler and PASCAL Compiler/Registered TM Microsoft. C Programming System/TM Mark Williams Company. RM/COBOL/TM Ryan-McFarland. Bar Code Writer and Bar Code Driver/TM Protable Computer Support Group. GEM Desktop 1.2/TM Digital Research Inc.

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Radio Shack has the best













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Accessories can make the difference between just a computer system and an *efficient* computer system. That's why Radio Shack offers the finest in accessories and support.

If your computer workspace needs organization, then our beautifully styled, simulated oak finish Computer Workcenter (A, \$99.95) is just what you need. It features a full-width monitor shelf, space for a computer and printer, plus plenty of workspace.

From $3^{1/2}$ to 8'', single-or double-sided, 40 to 80-track,

we've got the diskettes (B) you need. Store your diskettes safely in our Disk Storage Box (C, Low as \$12.95)—three sizes to choose from! And to keep your disk drives in top form get our Disk Drive Head Cleaning Kits (D, Low as \$7.95). Choose the right kit for your particular drive.

We have a full selection of fanfold printer paper (E, Low as \$8.95). Choose $9^{1/2} \times 11''$ or $14^{7/8} \times 11''$, available in various sizes and quantities.

Finally, our Universal Monitor Pedestal (F, \$16.95) allows you to tilt or rotate your monitor for maximum viewing ease. The pedestal holds all Tandy monitors, and matches the monitor's color and finish.

Come in and see our complete line of computers and accessories. We offer the systems you need at a price you can afford. Visit a Radio Shack Computer Center today!



Prices apply at Radio Shack Computer Centers and participating Radio Shack stores and dealers. Components pictured with accessories not included. Inquiry 252



Next to your computer,



nothing beats a Tandy printer.

High-quality printers-for less!

Complete your system with the right printer for your home or office. Tandy offers the fine print quality, graphics and high performance you need—at a price you can afford. Whatever your printing requirements, we've got what you need for your business or home computer.

Versatility and compatibility for your business

The DMP 430 (26-1277, \$699) gives you fantastic reproduction at a great price. The DMP 430 is a 132-column dot-matrix printer with an 18-wire print head that delivers superior correspondence characters in a single pass. You can choose from micro, italic and double-high fonts,

as well as bit-image graphics. And in the draft mode, the DMP 430 delivers a fast 180 characters per second. IBM[®] PC compatible.

Low-cost, triple-mode personal printer

The DMP 130 (26-1280, \$349.95) lets you choose from word processing, data processing and dot-addressable graphics. The DMP 130 prints in four character styles: standard or italic cursive, in draft or correspondence modes, at up to 100 characters per second. Features a bidirectional logic-seeking print head for maximum efficiency, plus a built-in tractor to prevent paper from slipping. IBM[®] PC compatible.

Tandy . . . Clearly Superior™

For the best value and selection in top-quality printers, shop your local Radio Shack Computer Center. We fully back what we sell with unbeat-



able support and service. Come in today and see our complete selection of printers, computers, upgrades and accessories.

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OCTOBER 1986 VOL. 11, NO. 10

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The Multifaceted Apple II GS:

Mixed Blessings from a 16-bit CPU

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TANDY... Better Again



Welcome to the next generation of personal computing.

Introducing four Tandy PC compatibles that redefine the IBM[®] "industry standard"

Meet our new line of MS-DOS[®] based personal computers. Each one was carefully designed for a particular type of use. Each with a different customer in mind. And yet each of these computers has one thing in common: the Tandy commitment to excellence.

We could have simply introduced computers that copy our competition at a lower price. No better, no worse—just a better deal. But that's just not the way we think. When you buy a Tandy computer, we want you to know you're getting more. More power, more speed, more options, more support. All at a lower price than the so-called "industry standard" computers.

The Tandy 1000 EX

Only \$799 for a true MS-DOS based computer? It's true. The Tandy 1000 EX has 256K of memory, a built-in disk drive and runs the same powerful software as an IBM PC—but at up to 50% faster! And every Tandy 1000 EX comes with our new graphics-oriented Personal DeskMate™ six-in-one software. With its built-in headphone jack, the 1000 EX is also the perfect classroom computer.

The Tandy 1000 SX

Here's a high-performance version of America's #1 PC compatible—the Tandy 1000. The new Tandy 1000 SX is still compatible with industry-standard MS-DOS software. But it can now run many of these programs up to 50% faster. The 1000 SX comes with 384K and two built-in disk drives—standard. You even get our enhanced six-inone DeskMate® II applications software. All for just \$1199.

The Tandy 3000 HL

If you've already invested in IBM PC/XT software and hardware, and would like to expand, the Tandy 3000 HL gives you *four times the power of the XT*... for less. The 3000 HL can process twice the data, thanks to its advanced, 16-bit 80286 microprocessor. Plus, the 3000 HL operates at twice the speed of the XT. With a Tandy 3000 HL, you're getting much more than just another XT compatible—and for only \$1699.

The Tandy 3000 HD

Unmatched in performance, the 640K Tandy 3000 HD is a powerful workstation with both networking and multiuser capabilities. It's compatible with the IBM PC/AT®, offers greater disk storage (40 megabytes), yet is priced at only \$4299. The new Tandy 3000 HD is our most powerful computer ever.

American-made quality

These four new computers are built in our own manufacturing plants by Tandy in the U.S.A. They're designed to meet our rigid quality standards and backed with the best support in the industry. We're proud of our new line and we want you to see why. Come in for a demonstration.

Available at over 1200 Radio Shack Computer Centers and at participating Radio Shack stores and dealers.



Prices apply at Radio Shack Computer Centers and participating stores and dealers. Monitors not included. Tandy 1000 EX shown with optional platform and second disk drive. IBM and IBM PC/AT/Registered TM International Business Machines Corp. MS-DOS/Registered TM Microsoft Corp.

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TANDY TRI-BO

The New Tandy 3000 HL

Four times the power of the IBM[®] PC/XT ...for less.

The Tandy 3000 HL isn't just compatible with IBM's PC/XT it's better. Better because of its new 16-bit microprocessor that lets you process twice the data of IBM's older, 8-bit design. Better because it has nearly twice the clock speed of the PC/XT.

Better because you get more for less: only \$1699.

The Tandy 3000 HL's 512K RAM lets you run the software that you've grown accustomed to—at a much higher speed for greater efficiency. And you can expand with hard disk drives, modems, and more. The high power and low price of the Tandy 3000 HL make it perfect for offices requiring several workstations. And the ViaNet local area network can bring your 3000 HLs together with your existing MS-DOS based computers. Users and departments can be more efficient.

Plus, the American-made Tandy 3000 HL is backed with total support, including our leasing, service and training plans.

Get the facts today, and you'll agree: the Tandy 3000 HL (25-4070) is your basic building block for total office automation. Available at over 1200 Radio Shack Computer Centers and at participating Radio Shack stores and dealers.



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DECEMBER 1986 VOL. 11, NO. 13

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Graphics Algorithms

<u>Great Christmas Savings from Radio Shack.</u> The Tandy[®] 102 Portable

Reg. \$499⁰⁰ Save ^{\$}100 on our most popular portable.

Good things really do come in small packages

Here's the perfect gift for busy executives, students and people on the move. The Tandy 102 provides the performance of a desktop computer in a much smaller—and much more affordable package.

We've redesigned our bestselling portable—the Model 100—into the slimmer, more lightweight Tandy 102. Ideal for businesspeople who travel, the Tandy 102 includes five instanton programs, an 8-line by 40character LCD display and a built-in modem. Despite its small size, the Tandy 102 features a full-size typewriter-style keyboard and 24K memory. Use the Tandy 102 as a personal word processor, address/ phone directory, appointment calendar and telephone autodialer. Access other computers or national information services by phone with the built-in 300 bps modem and communications program. Or write your own programs in BASIC.

The Tandy 102 includes parallel, RS-232C, cassette and bar code reader interfaces. You can even add a Disk/Video Interface for up to 184,000 characters of disk storage, as well as connection to a TV or display monitor. The powerful little Tandy 102 is a Micro Executive Workstation[™] that operates on batteries or optional AC adapter.



Save on our other portables!

The powerful Tandy 200 (26-3860, Reg. \$799.00, Sale \$599) and the professional diskbased Tandy 600 portable computers (26-3901, Reg. \$1599.00, Sale \$999) are available at special holiday savings as well. Stop by your local Radio Shack. We've got the perfect portable for everyone on your list.



Extra All–IBM Edition



Inside the IBM PCs



1

Third Annual Special Issue

ARE YOUR DOCUMENTS ALIEN?

If capturing text or images from paper documents is alien to you, our **SCANNING CONNECTION** is your best plan of attack.

In less than one minute, an image of your document can be read, stored, retrieved, processed, and output to a laser printer.

A version of Halo DPE[®] is provided for processing images. Photographs, books, articles, and drawings can be scanned and saved in compressed form.

The saved images can be combined with text in a wide variety of fonts and sizes. The completed document can be reproduced on a laser printer.

Images can be processed with our OCR software to produce text documents. Enhanced matrix matching is used for accurate character recognition. After the system is trained for each new typestyle, the matrix pattern is saved and reused.

A text editor is used to locate and correct scanning errors. The final document is stored in IBM DCA format with tabs, margins, indents, and line ends. The IBM DCA format can be read by most popular word processing programs.

We specialize in conversion systems and can transport your documents or images to most computer, typesetting, or word processing systems.



With our **DISKETTE CONNECTION** system you can read and write most 8", 5¼", and 3½" diskettes using a PC. We support systems from CPT, LANIER, NBI, WANG, XEROX, HONEYWELL, DG, DEC, and IBM.

Our **TAPE CONNECTION** system can read and write most 9-Track magnetic tapes using your PC. We can supply tape drives in several models at 800, 1600, or 6250 BPI. Tapes can be labeled and multivolume. The price for a Canon IX-12 scanner, controller card, cable, and image software is **\$1195**. The optional OCR software is **\$595**. The price for an IBM 3117 flat bed scanner, controller card, and image software is **\$1395**. The price for an 8" diskette drive, controller card, cable, and utility software is **\$1195**. The optional software for word processing conversion is **\$695**. The price for a 9-Track 1600 BPI tape drive, controller card, cable, and software is **\$3495**.

Since 1982, we have installed thousands of diskette and tape conversion systems at customer locations around the world. We have written hundreds of software programs and designed dozens of hardware products to meet our customer's conversion requirements. We support our products because we developed them. Call us today for help in solving your conversion problems.

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