APX

ATARI® Program Exchange

Product Catalog
Summer Edition 1983
Price $1.00

Consumer-
written
programs for
ATARI Home
Computers

APX SECOND ANNIVERSARY

M'GUINNESS

Printed in the U.S.A.

Contents

[1] Indicates trademark of The Soft
   Warehouse
[2] Indicates trademark of Stephen
   Romejko

What is APX?

Atari, Inc., created APX (which is pronounced "apex" and stands for the ATARI Program Exchange) to manufacture, distribute, and promote programs written by consumers for ATARI Home Computers. APX increases the usefulness and enjoyment of ATARI Computers by offering a large collection of high-quality, imaginative programs. Our software appeals to all ages, and it spans a wide range of needs and interests.

The APX catalogs

APX publishes four catalogs yearly. The base issue contains full descriptions of all programs currently available as of that quarter. The 1982-83 winter APX Product Catalog is the base issue. The three quarterly supplements contain full descriptions of all programs new for the quarter, plus condensed descriptions of all programs currently available as of that quarter. To obtain the most recent base issue or quarterly supplements, see your local ATARI Computer retailer. The Publications section contains ordering information.

Where to buy APX programs

You can purchase many APX programs quickly through your local ATARI Home Computer retailer. Look for APX programs both at computer stores and at general retail and discount stores. If you're an ATARI Computer retailer who hasn't yet ordered APX software, contact your ATARI representative. All items in the catalog are also available by mail or by toll-free telephone order. Before ordering by mail or phone, please read all the ordering information elsewhere in this catalog.

Program availability

Programs are available at the prices listed in this catalog starting June 27, 1983.

Program descriptions & review comments

The descriptions and review comments reflect the programs as of the date the catalog went to press. All review comments are the subjective evaluations of staff members who have used the programs. They are included to give you some idea of the relative strengths and weaknesses of different programs. In some cases, authors have improved their programs so that the product shipped differs from that described. However, the minimum computer memory (RAM) required won't increase from the amount published, and any changes will enhance the product.

How to submit programs to APX
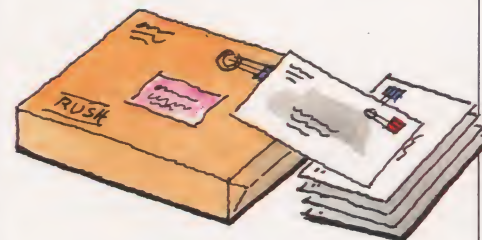
We'd like the opportunity to look at well-written programs you've created for ATARI Home Computers. You'll receive a quarterly payment for sales of your programs through APX. For details, call our toll-free numbers, 800/538-1862 (for calls within the continental U.S., except California), or 800/672-1850 (for calls within California) and request an APX Program Submission Packet.

1

Symbols used

- Following a program title, indicates a new version of the program this quarter. New versions correct program errors and/or contain one or more new program features. These changes are noted in the program descriptions.

1st Indicates a winner in the current quarterly APX contest.

Premium ATARI Staff Identifies exceptional programs written by ATARI staff members, who aren't eligible for the APX contests.

PAL Indicates a program has been tested and is recommended for 50 Hz PAL, a television transmission system widely used in Europe.

PAL (crossed out) Indicates the program is not recommended for PAL systems.

Other symbols used in the condensed program descriptions are explained in the symbol box at the bottom of those pages.

From the editor

This issue introduces seventeen new and interesting programs. Home owners, financial investors, and anyone owning items of value will appreciate the financial planning and inventory tracking tools new in the *Home Management* section. Two new *Personal Development* programs, *Drawit* and *Video Kaleidoscope*, make outstanding use of the ATARI Computer's graphics features. The prize-winning *Drawit* is an exceptionally easy, fun, and useful program. In addition to its being a drawing tool, *Drawit* can also be invaluable as a demonstrator and a presentation aid.

The five new *Learning* programs have something for everyone — from elementary school students, to parents and teachers, to anyone with a continuing interest in acquiring new skills and knowledge. And be sure to check out our six new games. One of them, *Dandy,* is by the author of several outstanding systems programs available through APX. It's a dungeons and dragons-style game playable by up to four players simultaneously.

APX now offers programs from abroad

We introduce our first two programs from international authors in this issue. *Ennumereight,* a variation of awari, is a submission from England, and *Bootleg,* a search-for-booty maze game, was submitted from New Zealand. Because we also publish an international edition of our catalog, ATARI Home Computer owners around the world can enjoy APX programs by visiting their nearest ATARI Computer retailer, and program authors in Europe can now submit their programs directly to our ATARI International (United Kingdom) headquarters for processing. In addition, the newly revised Program Author's Handbook contains information of interest to both domestic and international program authors. The article discussing how we review programs describes how to obtain an APX Program Submission Packet.

On the cover: ATARI Computer Camps offer 10−16 year olds an exceptional summer experience. For more information, phone 800/847-4180, or write ATARI Computer Camps, 40 East 34th St., New York, NY 10016.

Two APX programs added to the main ATARI product line

We're pleased to announce that two of our most popular programs, *Family Cash Flow* and *Family Budget,* both by Jerry Falkenhan, have been further enhanced and are now part of the main ATARI product line as *Family Finances.* Look for this new ATARI product at your local ATARI Computer retailer.

Win a trip for two to the Olympic games in Los Angeles

Only four more months remain until the closing date (October 1) for submitting programs that focus on the summer or winter Olympic games. These programs are eligible for a bonus prize in our winter judging. The prize is an all-expense paid trip for two to the Olympics in Los Angeles, plus hotel accommodations and two three-day passes to the games, which take place between July 28 and August 12, 1984. For more details, see the spring edition of the APX Product Catalog.

How APX reviews programs submitted by our users

Our growth over the past two years has been phenomenal. Submissions from users have increased dramatically. Today, hundreds of programs arrive each quarter with the hope of being selected for publication by APX. And it's no wonder! In addition to receiving royalty payments based on sales of their programs, authors are eligible to win prizes in our quarterly contest, and to win the annual $25,000 grand prize.

As the number of submissions has increased, our review procedures have changed. We work hard to ensure that APX product reviewers all use the same guidelines, with the same objectives in mind.

Recently we re-evaluated our review procedures and introduced some new policies. Each program submitted now undergoes a multilevel review. First, it must pass a set of checkpoints. We check for such things as completion of all necessary paperwork, correct copyright notice display, verification of specified minimum computer memory, and so on.

Next, we consider a program's content. Here we look at items specific to the category of the program — be it an educational program, a game, a system utility, or other kind of program. In educational programs, for example, all answers entered by a user must result in some kind of response from the program. Moreover, the program's responses must be meaningful and appropriate — positive responses must be clearly positive, and negative ones clearly negative, although not discouraging. As another example, we test all file input and output in data bases. Such testing requires that the author provide sample data files.

Finally, a program passing both evaluation stages goes before the APX Review Board. If the board passes a program, the program qualifies for acceptance into the next edition of the APX Product Catalog. A decision by the board not to pass a program can result either in a standard rejection letter or, for those showing promise, in a letter describing the changes that would result in the board's being willing to re-evaluate the program.

Anyone considering submitting a program to APX should have the APX Program Submission Packet, which has been updated to include information of interest to both domestic and international program authors. To obtain the packet, call our toll-free numbers, 800/538-1862 (for calls within the continental U.S., except California) or 800/672-1850 (for calls within California), or write to us at P. O. Box 3705, Santa Clara, CA 95055. We look forward to evaluating your programs.

Profile of an APX author: John H. Palevich

John H. Palevich, author of five APX programs, thinks computers are ''the most fun thing in the entire world.'' A recent graduate of the Massachusetts Institute of Technology, Jack is now on Atari's research and development staff, the result of a long-running interest in computers and his many outstanding contributions to APX.

Jack's interest in computers began in summer school between fourth and fifth grades. When the teacher brought out the computer games on the last day of school, Jack was hooked. By seventh grade he'd mastered BASIC.

In high school, he headed straight for his high school's timesharing computer. ''I hung out every day in the computer room. I even ate lunch there,'' he recalls. His advisor suggested that Jack ask his father to buy him a personal computer, and his father agreed to help him get started.

Jack soon outgrew his first computer and saved to buy a different one. After studying the market, he bought an ATARI 400 Computer with 8K of computer memory. Like many others, he chose an ATARI Computer because of its graphics features. ''Star Raiders sold me,'' Jack noted.

However, life with his computer hasn't been altogether smooth. Being a ''computer hacker'' at heart, Jack gladly ignored homework and other daily tasks to concentrate on his hobby. As a result, his parents felt obliged to take

Dandy
by John H. Palevich

his computer away for a couple of terms. But all has turned out well: at Atari he's spending his days indulging his passion for computing, and he's exploring other interests after hours.

Fortunately for ATARI Home Computer owners, Jack has contributed several outstanding programs before deciding to take a break to pursue other activities. His first contribution to APX, *Chameleon CRT Terminal Emulator,* won him first prize in the *System Software* category of the first quarterly APX contest. *Chameleon* turns an ATARI Computer into any of several terminal types and transfers files to and from other microcomputers and larger systems. *Chameleon* users have called to say how valuable the program is to them, and Jack willingly answers their questions.

To speed the slow process of developing a game on a cassette-based system, he created his second APX program, *Mantis Boot Tape Development System,* a tool for developing and debugging machine-language cassette programs on disk-based systems. It earned him another first prize.

Then he turned to adapting a language to his ATARI Home Computer. He wanted to use the SMALL C language to write games, so Jack adapted C to his ATARI Computer. His efforts resulted in two APX programs, *Deep Blue C Compiler* and *Deep Blue Secrets* (the source code for *Deep Blue C*).

Can a programmer of systems utilities successfully cross over to writing games? If *Dandy* is any indication, the answer is a resound-

ing yes! Newly published in this issue, *Dandy* is Jack's latest APX contribution.

Dandy began as his senior project at M.I.T. In his dormitory, Jack noticed that people gathered into informal groups. He decided to design a game that several people could play simultaneously and cooperatively. His dormitory also housed a very creative dungeon master, and Jack, in tribute to his friend, selected a dungeons and dragons theme and style for his game: players work together to win. ''There's no end of play testers in dorms,'' Jack says, and they were all eager to suggest improvements. By way of acknowledging his friends' contributions, several of the game's 26 dungeons contain play testers' initials.

From one to four players collectively explore a dungeon picking up money and destroying monsters, trying to survive to the twenty-sixth dungeon. Each game feature is designed with cooperation and multiplayer action in mind. For example, in many dungeons a player can shoot an arrow into a heart to reincarnate any player who has been done in by the monsters. Without such a feature, Jack noted, anyone who died would ''have to twiddle his thumbs for the rest of the game.''

Dandy earned Jack a well-deserved A for his senior project; the program's many features amply demonstrate his flair for game design and his understanding of the power and versatility of his ATARI Computer. The APX staff wishes Jack much success in his new position at Atari.

Results of the summer APX contest

The quarterly APX contest is watched with interest by many people all across Atari.

In addition to the judges, we encourage Atari staff members throughout the company to attend our quarterly contest so they'll be familiar with the quality and range of programs we accept. Every quarter we hear comments about the high caliber of the contributions to APX, and we can only agree with them!

Consumer (Entertainment and Personal Development)

In the *Consumer* category, the program judged the best is *Drawit*, submitted by James Burton, a senior in electrical engineering at the University of Hawaii. James

Drawit
by James Burton

created his program on a very basic ATARI Computer system: an ATARI 400 Computer with an ATARI 410 Program Recorder and 16K of computer memory. Then he borrowed a friend's more elaborate ATARI Computer system to put the finishing touches on his program. *Drawit* is a resubmission to APX. The first time James submitted it, it was rejected for being too slow. However, James taught himself assembly language and converted the program code from BASIC to machine language, greatly speeding up all procedures. He also added a number of other features, all of which make *Drawit* an outstanding drawing and presentation aid.

Second prize goes to Chris and John Goodman of Princeton, New

Jersey, for *Smasher,* an interstellar, arcade-style game. Chris, a high school sophomore, and John, a high school senior, want to earn some income from their ATARI Home Computer and decided they could create a better game than those they saw on the market. Steve Robinson from Portland, Oregon, wins third prize for *The Bean Machine,* a very colorful game with a perky melody to accompany the smooth action.

Learning

All winning programs in the *Learning* category were written by already published and prizewinning APX authors. However, the first and second prizewinning programs have something else in common. They are the result of a collaboration between a published APX author and a teacher. First prize goes to Greg Thrush, an architect from Boulder, Colorado (and author of the APX program *Stock Management*), and Marian Dillashaw, a high school teacher of remedial reading from Longmont, Colorado, for *Wordgo,* an exercise for building word skills using a game format. The program was inspired by the flash cards and phonics drills Marian uses in her classes. Marian researched which words to include and generally provided the subject area expertise, while Greg did the bulk of the programming.


Wordgo
by James Thrush
and Marian Dillashaw

Second prize goes to Mark Davids, a high school physics teacher from St. Clair Shores, Michigan, and Sheldon Leemon, an attorney from Oak Park, Michigan (and author of

the APX program *Instedit*), for *Circuit Lab*, a classroom-tested program for building and testing Direct Current electrical circuits. Sheldon used *Instedit* to design the custom character set in *Circuit Lab*, and Mark tested *Circuit Lab* in both physics and beginning electronics courses. Mark also uses an ATARI Computer extensively in his classes for demonstrations, simulations, and drill and practice sessions.

James Bayless of Austin, Texas, and author of the APX program *Music Player*, captures third prize for *Morsecode Master*, a program that lets you learn and practice characters, words, and sentences in Morse code.

Home Management

In the *Home Management* category, first prize goes to Jim Skinner, a computer systems analyst from Orlando, Florida, for *Home Loan Analysis*, an easy-to-use program
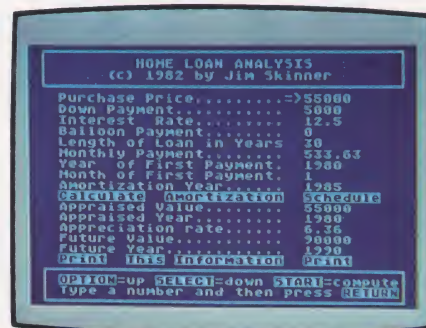
Home Loan Analysis
by Jim Skinner

for evaluating the terms for all kinds of amortized loans. Jim wrote this program because, like many of our authors, he's interested in earning some income from his computer investment and he hadn't come across a program of this kind for ATARI Computers. And, like *Drawit, Home Loan Analysis* is a resubmission; in fact, this was the fifth time Jim sent it in, each time taking into account the APX product reviewers' suggestions for improvement. Perseverance paid off.

Richard Lindgren, from Lamoni, Iowa, wins second prize for

Strategic Financial Ratio Analysis, a comprehensive program for evaluating a firm's performance and management strategies. Richard used his impressive range of business and computing experience to design this program. He's a business professor, a Certified Public Accountant, author of the APX program *Real Estate Cash Flow Analysis*, and the author of articles on finance and computers in several publications. His program's special format clarifies management choices and provides valuable insight for investors trying to make sense from a company's published financial statements.

Third place goes to the authors of several APX programs, including *Data Management System, Diskette Librarian,* and *Weekly Planner.* Ron and Lynn Marcuse of RLM Micro Systems in Freehold, New Jersey, win for *Home Inventory,* a well thought-out program for recording information about any kind of property in case of loss or damage. Ron and Lynn, both programmers, have benefited from designing their earlier programs; *Home Inventory* is a practical program that is both colorful and easy to use.

Systems Telecommunications

The *Systems/Telecommunications* category had no qualifying entries, and so those prizes will be awarded in a later quarter. We extend our congratulations to all summer quarter program winners!

1983 HONOR ROLL
Quarterly Prizewinners in the
Atari Program Exchange Contest

Below are listed, by quarterly catalog issue, the names of the winners of the APX quarterly contest. Contest rules are on page 7 of this catalog. For a free Program Submission Package, write APX, P.O. Box 3705, Santa Clara, CA 95055.

Quarterly Catalog Issue	Consumer (Entertainment and Personal Development)	Home Management	Learning	Systems/ Telecommunications
Spring	**1st Prize —** *Getaway* by Mark Reid **2nd Prize —** *Caterpiggle* by Scott Ludwig **3rd Prize —** *Fingerspelling* by Dewey Garton	**1st Prize —** *Atspeller* by R. Stanley Kistler **2nd Prize —** *Not awarded* **3rd Prize —** *Not awarded*	**1st Prize —** *Teasers by Tobbs* by Thomas O'Brien **2nd Prize —** *My Spelling Easel* by Al Casper **3rd Prize —** *Three R Math Classroom Kit* by Dan Rohr	**1st Prize —** *Hex-A-Bug* by David Kano **2nd Prize —** *Not awarded* **3rd Prize —** *Not awarded*
Summer	**1st Prize —** *Drawit* by James Burton **2nd Prize —** *Smasher* by Chris and John Goodman **3rd Prize —** *The Bean Machine* by Steve Robinson	**1st Prize —** *Home Loan Analysis* by Jim Skinner **2nd Prize —** *Strategic Financial Ratio Analysis* by Richard Lindgren **3rd Prize —** *Home Inventory* by Ron and Lynn Marcuse	**1st Prize —** *Wordgo* by Greg Thrush and Marian Dillashaw **2nd Prize —** *Circuit Lab* by Mark Davids **3rd Prize —** *Morsecode Master* by James Bayless	**1st Prize —** *Not awarded* **2nd Prize —** *Not awarded* **3rd Prize —** *Not awarded*

The quarterly APX contest

All programs accepted by APX by the deadlines noted below automatically become contestants in that quarter's judging. First, second, and third prize winners in each of four categories receive ATARI hardware and software products (including APX products) as prizes. The *Consumer* category has larger prize values, reflecting our commitment to the home computer user. The categories (we've revised some of these titles for clarity and brevity) and their prize values are*:

1 Consumer (Entertainment and Personal Development)

1st prize $3,000
2nd prize $2,000
3rd prize $1,000

2 Home Management

3 Learning

4 Systems/Telecommunications

1st prize $2,000
2nd prize $1,500
3rd prize $ 750

Programs accepted by APX on or before October 1, 1983 will be eligible for the 1983 grand prize — $25,000 in cash!

To request an APX Program Submission Packet, containing complete instructions for submitting programs, write or call APX.

*Based on manufacturer's suggested retail prices.

Contest rules

1. Only programs accepted by APX are eligible for the contest.

2. A program is eligible for the prizes in the category in which it is accepted. Atari determines this category.

3. A program is eligible for the quarterly prizes awarded in the quarter in which it is first accepted and for the grand prize of the contest year in which the quarter falls.

4. A program qualifies only once for a quarterly prize and once for a grand prize. Revisions and improvements do not qualify a program for another prize in this contest.

5. A program is judged on a variety of factors by a panel of judges selected by Atari. The judges consider a program's

- User interface and overall design
- Originality
- Ease of use
- Implementation
- Documentation
- Interest level

6. Atari employees and their families are not eligible for the contest.

7. Atari pays for shipping prizes anywhere within the United States. Foreign winners are responsible for any additional shipping charges.

8. The decisions of the judges are final.

9. This contest is void where prohibited by law.

1983 closing dates

The dates by which a program must be accepted for a contest judging are as follows:

Date	Contest
January 1	Spring contest
April 1	Summer contest
July 1	Fall contest
October 1	Winter contest and 1983 grand prize

Home Management

Home Inventory
by RLM Micro Systems

Recommended for ages 15 and up
Written in BASIC and machine language

Protect your property by recording vital information

You've devoted time, effort, and money to acquiring your possessions, and you've insured your valuables against loss or damage. But, have you recorded the information required by your insurance company for reimbursement? For each item, *Home Inventory* lets you keep track of a name, type, description, serial number, date purchased, and purchase price. You can store information for up to 1200 items on a single diskette, and you can use as many diskettes as necessary to record all your possessions.

Home Inventory is very easy to use. Color-coded screens and simple messages guide you through entering the information for each item, for locating selected items, and for printing complete or condensed inventory lists of all or selected items. You can also erase or revise information for items at a later date. Then, after you record all your valuables, you can store a copy of the diskette containing your records in another location, such as a bank safety deposit box or a friend's home. No one wants to face loss or destruction of property, but with *Home Inventory*, if disaster strikes, at least you're prepared with the information needed to get restitution from your insurance company.

The authors invite questions and comments by mail and telephone.

REVIEW COMMENTS
This program is easy to understand and use. The color-coded screens help you keep track of where you are, and numerous messages ensure you don't accidentally lose information.

REQUIRES
ATARI BASIC Language Cartridge
Diskette(s) for storing records

OPTIONAL
ATARI printer or equivalent printer

ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	$24.95	APX-20214
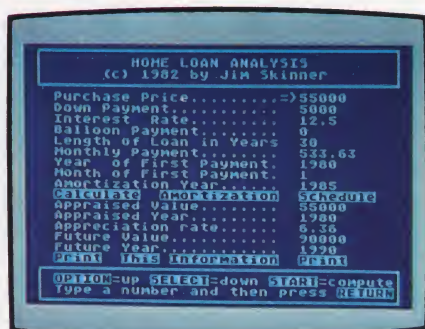
Home Loan Analysis
by Jim Skinner

Recommended for adults
Written in BASIC

Evaluate loan alternatives

You're ready to buy a house, but you don't know the appropriate price range. You want your payments to be no more than $750 per month, and you want to finance the loan for 30 years to buy as large a house as possible. If the current interest rate is 14.5 percent, what's the maximum purchase price you can afford?

You want to make improvements to your house that will cost $5,000. You can borrow the money at 16 percent for five or ten years. Which time period would be better?

Home Loan Analysis can help you answer these and other kinds of questions related to loans that use an amortization schedule, including mortgages and most automobile loans. You need enter only some combination of interest rate, original purchase price, down payment, balloon payment, and number of years for the loan. *Home Loan Analysis* can then calculate monthly payments, maximum purchase price, appreciation rates, resale values, and amortization schedules. By changing one item, such as interest rate, you can quickly see its effect on the other figures. And you can display the analyses on your TV screen or print them. Can you afford a home improvement loan? Should you refinance your first mortgage or take out a second mortgage? What is the effect of various balloon payments on your regular monthly payment? What will your home be worth ten years from now? With *Home Loan Analysis,* getting the answers to these questions makes evaluating all your options a snap.

The author invites written questions and comments.

REVIEW COMMENTS
This program is easy to use, informative, and well designed. It will calculate a schedule for specific years. The manual clearly presents many useful examples.

REQUIRES
ATARI BASIC Language Cartridge

OPTIONAL
ATARI printer or equivalent printer

ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	$24.95	APX-10207
Diskette (810)	24K	$24.95	APX-20207

Strategic Financial Ratio Analysis
by Richard K. Lindgren

Recommended for investors and students
Written in BASIC

Evaluate a firm's performance and management strategies

Investors use financial ratio analysis to assess the performance of a company. You supply information from published financial statements, such as annual reports. *Strategic Financial Ratio Analysis* computes ratios that measure a firm's profitability, liquidity, and use of debt.

You can also use the program to interpret a management's business strategies, not always evident from looking at numbers alone. *Strategic Financial Ratio Analysis* can help uncover these strategies by presenting a set of key ratios in a format that demonstrates how each factor contributes to the company's success or failure. You can also use the program for "what if" analysis to evaluate the impact of a possible business decision on future performance.

The program guides you through entering the necessary data, which you can save for future use. Because you can work with two sets of information at a time, you can compare information on two different companies or information for two different time periods for one company. You can request as many as 30 different ratios for these two sets, and display or print them in a special format that illustrates their strategic relationships. For quick recall, the program also contains a glossary of all the ratios. With *Strategic Financial Ratio Analysis,* you'll spend less time computing and organizing your results than you do now, and you'll have more useful information at your disposal.

The author invites written questions and comments.

REVIEW COMMENTS
This program is easy to use and it's good at helping you avoid making mistakes. The user manual is clear and thorough.

REQUIRES
ATARI BASIC Language Cartridge

OPTIONAL
ATARI printer or equivalent printer
Diskette(s) for storing data

ORDER INFORMATION

| Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	$24.95	APX-20217

Home management

Program	Accessories		Cassette*		Diskette**		
			RAM	Order No.	RAM	Order No.	Price
Atspeller ■ by R. Stanley Kistler Check your documents for correct spelling (ages 12 and up). The latest version is usable on one-disk-drive systems.		• Diskette(s) containing text files.	N/A		48K	APX-20191	$39.95
Bowler's Database by Jerry White Track individual weekly bowling scores and print scores and averages	B	• Diskettes for storing data	16K	APX-10091	24K	APX-20091	$17.95
Calculator A programmable calculator with storing and printing features (ages 15 and up)			N/A		24K	APX-20130	$29.95
Data Base/Report System by James W. Burley A multifeatured information organizer and reporter for experienced data base users. In the latest version, redefined fields now display in the correct location.	B 825	• Diskettes for storing data • Epson printer	N/A		40K	APX-20134	$24.95

SYMBOLS USED

Cartridges:

B ATARI BASIC Language Cartridge

A Assembler Editor Cartridge

P ATARI PILOT

Accessories listed in boldface type are required.

All others are optional.
Symbols in color are required.
Grey symbols are optional.

Printers:

820 ATARI 820 40-Column Printer

822 ATARI 822 Thermal Printer

825 ATARI 825 80-Column Printer

ATARI printer or equivalent printer

Controllers:

ATARI Joystick Controller

ATARI Paddle Controller

* Requires an ATARI 410 Program Recorder
** Requires an ATARI 810 Disk Drive

★ ATARI Special Award of Merit

10

Home management

Program	Accessories	Cassette* RAM	Cassette* Order No.	Diskette** RAM	Diskette** Order No.	Price
Data Management System by Ronald and Lynn Marcuse An information organizer and reporter for brief items (ages 15 and up)	B 825 • Epson MX-80 Printer		N/A	32K	APX-20059	$24.95
Decision Maker by James L. Bruun Make decisions involving as many as ten choices and ten factors (ages 12 and up)	B	8K	APX-10044	16K	APX-20044	$17.95
Diskette Mailing List by William Bartlett A multipurpose data manager and label program (ages 16 and up)	B 825	N/A		16K	APX-20112	$24.95
Enhancements to Graph It by Howard D. Siebenrock Save plots and charts created by ATARI Graph It (ages 12 and up)	B • ATARI 410 Program Recorder • GRAPH IT (CX4109)	N/A		32K	APX-20074	$17.95
Family Vehicle Expense by Jerry Falkenhan Track up to nine monthly costs for six vehicles (ages 18 and up)	B • Diskettes for storing data	N/A		40K	APX-20128	$24.95
Financial Asset Management System by Robert A. Waldman Organize your asset records and print reports (ages 16 and up)	B 825	N/A		40K	APX-20042	$29.95
FOG Index by Ingrid Langevin Use the FOG Index to analyze text readability (ages 13 and up)	B 825 • A text editor using ATARI DOS	N/A		32K	APX-20185	$17.95
Hydraulic Program by William L. Rice Calculations for sizing hydraulic systems and components (ages 16 and up)	B	N/A		32K	APX-20066	$24.95
Isopleth Map-making Package by Clyde Spencer Create and display your data as maps (ages 16 and up)	B	N/A		32K	APX-20103	$24.95
Real Estate Cash Flow Analysis by Richard K. Lindgren Evaluate property investments	B 825	N/A		32K	APX-20169	$24.95

Home management

Program	Accessories	Cassette*		Diskette**		
		RAM	Order No.	RAM	Order No.	Price
Recipe Search 'n Save by Edward Lehmann Classify, store, and print records (ages 14 and up). The latest version prints complete shopping lists, but the list is sometimes alphabetized incorrectly.	B 825	• **Diskettes for storing recipes** • Epson MX-80 Printer	N/A		32K	APX-20114	$24.95
RPN Calculator Simulator by John Crane A Reverse Polish Notation calculator (ages 12 and up)	B		16K	APX-10105	24K	APX-20105	$24.95
Stock Management by Greg Thrush Organize stock transaction receipts and print reports (ages 18 and up). The latest version computes stock splits accurately when displaying profit and loss statements.	B 825	• Epson 80-Column Printer	N/A		32K	APX-20147	$24.95
Text Analyst by Ingrid Langevin Use the Dale-Chall method to analyze text readability	B 825	• ATARI Word Processor • Text Wizard	N/A		40K	APX-20142	$17.95
Text Formatter by Dale Yocum A basic text formatter for use with a text editor (ages 16 and up)	B	• **A compatible text editor**	16K	APX-10002	24K	APX-20002	$24.95
Typit By Charles E. Balthaser Turn your computer into a typewriter	825	• Diskette(s) for storing documents	N/A		24K	APX-20192	$17.95
Weekly Planner by Ronald and Lynn Marcuse Store and print dates and appointments (ages 15 and up)	B 825		N/A		32K	APX-20079	$24.95
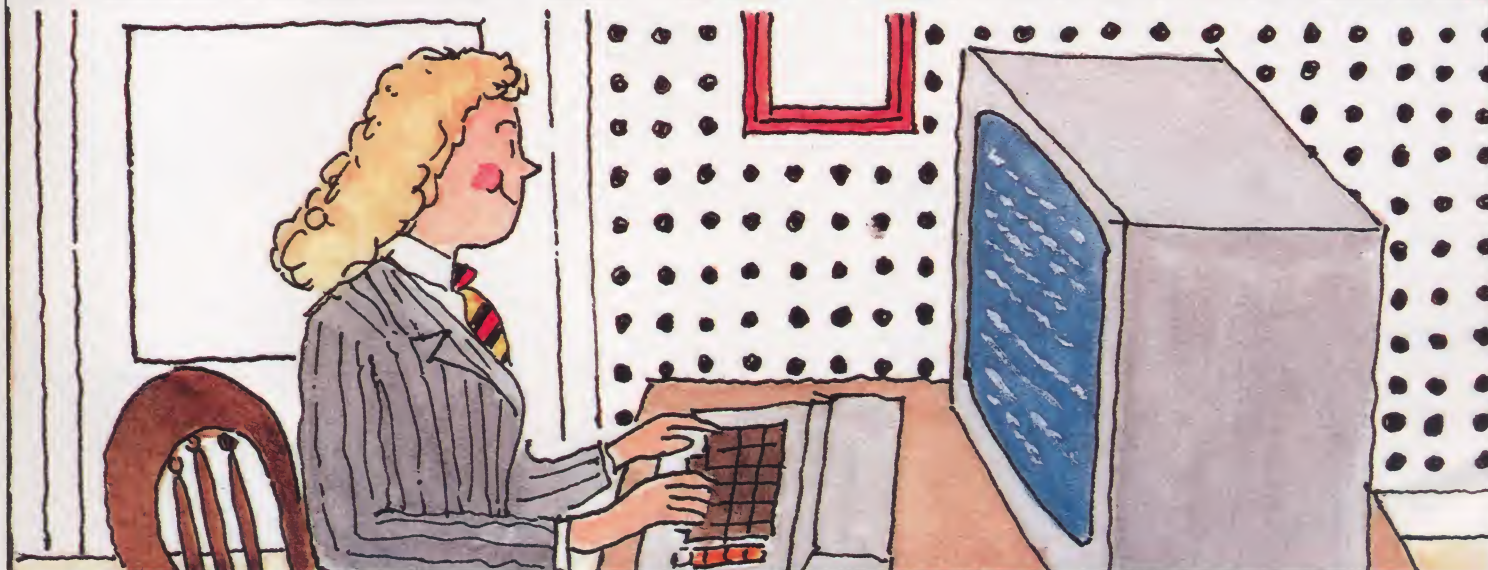
Personal Development

Drawit
by James Burton

Recommended for ages 8 and up
Written in machine language

Turn your ATARI Computer into an animated easel

There are many drawing programs available for ATARI Home Computers. *Drawit* stands out from the crowd because of its well chosen, easy-to-use features and its ability to turn your creations into both a ''slide show'' for which you control the timing and an automatic message cycling system.

With *Drawit* and 48K of computer memory, you can create up to nine pages of multicolored drawings in memory at a time; with 16K of memory, you can create one page, and with 32K of memory, you can create five pages. Using four color pens, you can choose from sixteen different colors and eight different hues. You can easily draw outlined and solid circles, lines, boxes, different sized text, and freehand sketches. *Drawit* also has a fill feature, along with design relocation, page merging, and two zoom levels for detail work. The program comes with three quick reference pages you can

load into memory (if you have the appropriate amount of minimum memory) and use for handy recall while you're working. You can store pages on either cassette or diskette and recall them at a later time.

You can use your drawings in several ways. For example, *Drawit* includes a program that lets you incorporate your drawings into BASIC programs. And with *Drawit's* animator feature, you use a simple set of commands to combine pages in imaginative ways, such as fading one page into another, creating page wipes from any of four directions, displaying pages in any order with your own specified time delay, and repeating any of these features. With *Drawit,* you can turn your ATARI Home Computer into a visual aid for presentations or into an automatic sales or demonstration device. The diskette version of *Drawit* includes an animation demonstration. You'll really enjoy experimenting with this program!

The author invites questions and comments by mail and telephone.

REVIEW COMMENTS
Drawit is an excellent picture-drawing tool; it's easy to learn and use, and has many nice bells and whistles, such as adding letters of any size, a choice of cursor form and speed, and the ability to load screens from BASIC. The animator demonstration is wonderful. The manual is well written and includes a quick reference page.

REQUIRES
One ATARI Joystick Controller

OPTIONAL
ATARI BASIC Language Cartridge

ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	$39.95	APX-10209
Diskette (810)	16K	$39.95	APX-20209

Video Kaleidoscope
by Raymond Weir

Recommended for ages 4 and up
Written in BASIC and machine language

Turn your designs into a graphic extravaganza

If you're looking for a way to introduce a young child to the colorful world of computer graphics, or if you want to show off the graphics capabilities of your ATARI Computer to friends, consider *Video Kaleidoscope*. It's so easy to use that children as young as four can enjoy creating elaborate, colorful, whirling pictures that go far beyond the simple image mirroring of traditional kaleidoscopes.

Video Kaleidoscope has two parts. First you use a joystick to draw a simple or complex design. You can vary the speed to create quick designs or very precise ones. The design repeats in the four quadrants of the screen as you draw. Then a press of the START key begins the kaleidoscope. Pressing each letter and number key causes a different special effect, such as rotating rainbows, color flashes and pulses, alternating patterns, graduated spectrums, a freeze-frame effect, and a continuation of the design development. The longer you let your design develop, the more complex it becomes. You can change colors at will, selecting soothing pastels, brilliant hues, or a combination. If you create a particularly pleasing design, you can store it on a diskette and recall it another time.

The author invites written questions and comments.

REVIEW COMMENTS
This easy-to-use drawing program requires only the joystick and one function key. It isn't intended to generate designs usable in your own programs.

REQUIRES
ATARI BASIC Language Cartridge
One ATARI Joystick Controller

OPTIONAL
Diskette(s) for storing designs

ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	40K	$17.95	APX-20213
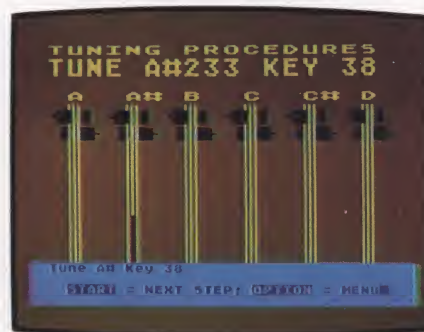
Piano Tuner
by R. J. Morgan

Recommended for ages 16 and up
(with knowledge of music and piano)
Written in BASIC

Learn piano tuning, tone generation, and ear training

If nobody wants Sam to play it again any more, maybe it's the piano. Keeping this delicate instrument in tune is a difficult but critical part of maintaining it in good condition. *Piano Tuner* incorporates the sound capabilities of your ATARI Home Computer to help you learn the procedure and skills you need for this task.

The "tuning procedures" section of the program guides you through the steps to do a general tuning. It prints instructions and illustrations for each step. Then it sounds the tones you need to adjust your piano.

Select the "single tones" option to generate any of the 88 possible pitches on a piano. Each note is listed on the screen, and you use a joystick to select the one you want. Hold down the joystick button to listen to that tone.

To sharpen your skills as a tuner, choose "ear training." You select one pitch, and the program produces another within fifteen cycles per second of the first. Use the joystick to increase or decrease the pitch of the second tone. When you've matched the first tone, you no longer hear the "beat" sound that indicates a difference. Practice makes perfect!

The author invites written questions and comments.

REVIEW COMMENTS
This program doesn't replace the services of a professional piano tuner. The graphic representation of the piano strings is good, and the tuning procedure is easy to follow. It's useful for the piano owner who wants to learn general tuning.

REQUIRES
ATARI BASIC Language Cartridge
One ATARI Joystick Controller
Tuning hammer
Damping wedges or felt

ORDER INFORMATION

| Media	RAM	Price	Order No.
Cassette (410)	16K	$29.95	APX-10216
Diskette (810)	24K	$29.95	APX-20216

Personal Development

Program	Accessories	Cassette* RAM	Cassette* Order No.	Diskette** RAM	Diskette** Order No.	Price
Advanced Musicsystem ★ PAL by Lee Actor A comprehensive music composition tool (ages 11 and up)	B • Diskettes for storing music • Stereo cable • Tape Recorder		N/A	32K	APX-20100	$29.95
Astrology ★ by Harry Koons and Art Prag Draw astrological charts based on birth date and birthplace (ages 14 and up)	B		N/A	40K	APX-20078	$24.95
Banner Generator by John Daigle and Steve Bittrolff Print one-liners up to 6 inches high and 80 characters long (ages 8 and up)	B	16K	APX-10040	16K	APX-20040	$17.95
Blackjack Tutor by W. H. Northrup A tutorial to improve playing and betting strategy (for adults)	B	16K	APX-10057	24K	APX-20057	$24.95
Fingerspelling by Dewey Garton Practice letter and word fingerspelling (ages 4 and up)	B	16K	APX-10197	24K	APX-20197	$24.95
Going to the Dogs by Michael Kirtley A handicapping program for dog races (for adults)	B • Diskettes for storing data • A racetrack program		N/A	24K	APX-20123	$24.95
Keyboard Organ by Alan Griesemer and Stephen Bradshaw Simulate a simple organ with vibrato and attack (ages 6 and up)		24K	APX-10094	24K	APX-20094	$24.95
Personal Fitness Program by David Getreu Eight self-paced exercises (ages 12 and up)	B		N/A	24K	APX-20033	$24.95
Player Piano by Jerry White A twenty-note minipiano with music storage features (ages 4 and up)	B	32K	APX-10062	32K	APX-20062	$24.95
Sketchpad PAL by Duane L. King A computerized doodle pad with storage feature (ages 12 and up)	B • Diskettes for storing pictures	16K	APX-10107	24K	APX-20107	$24.95

SYMBOLS USED

Cartridges:

B ATARI BASIC Language Cartridge

A Assembler Editor Cartridge

P ATARI PILOT

Accessories listed in boldface type are required.

All others are optional.
Symbols in color are required.
Grey symbols are optional.

Printers:

820 ATARI 820 40-Column Printer

822 ATARI 822 Thermal Printer

825 ATARI 825 80-Column Printer

ATARI printer or equivalent printer

Controllers:

ATARI Joystick Controller

ATARI Paddle Controller

* Requires an ATARI 410 Program Recorder
** Requires an ATARI 810 Disk Drive

★ ATARI Special Award of Merit

15

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              GLAD
TIME          HI SC 2048
 21              SCORE
SECONDS           655
EXPERIENCING PLEASURE, JOY, DELIGHT

  IM    INK    AD    ONE

  OMP   UFF   ATE   UNK

  OME   OME   OCK    ED

  AIR    IN   EAT   EAM
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Wordgo
by Greg L. Thrush and Marian Dillashaw

Recommended for ages 8 and up
Written in BASIC

Build word skills by blending letter combinations on a game board

Scholars tell us that English has one of the richest vocabularies of any language, because it has borrowed words and expressions from so many cultures. This is a great advantage for poets, but it makes it hard for children to build their language skills. They have to learn a wide variety of words *and* a system of spelling that doesn't seem to make sense. Traditionally, the only way to build vocabulary and spelling skills was by rote memory work.

Now there's a captivating game, *Wordgo,* that sharpens these essential skills. You choose one of two difficulty levels, and a grid of sixteen boxes containing word endings (such as "ank" or "ick") displays below one blend of initial consonants (such as "th"). Using your joystick controller, you position the cursor over one of the endings ("ank", for example) to form a word with the initial consonants above. If your choice forms a word ("thank"), that box is outlined, and you try again with a new word beginning. When you outline four boxes in a line (vertically, horizontally, or diagonally), you're rewarded. The more words you make, and the faster you work, the more points you score. You can compete against your own high score, or against your opponent's high score. You can multiply your score with double and triple intersecting lines.

If you try to create words you're not sure of, you might surprise yourself by making a word that really exists. If you do, you can request a definition of the word you've made (not always the most ordinary definition!). This feature, with no penalty for errors, encourages you to expand your vocabulary. It also teaches correct spelling of words that could be sounded out in different ways (for example, the program accepts "scamp" but not "skamp").

The authors invite comments and questions by mail and telephone.

REVIEW COMMENTS
Wordgo is a fun way to build up vocabulary; some of the words and definitions are surprising. Joystick use makes it easy for a child to play.

REQUIRES
ATARI BASIC Language Cartridge
One ATARI Joystick Controller per player

ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	40K	$24.95	APX-20212
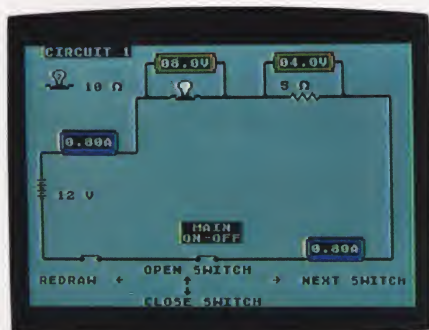
Circuit Lab
by Mark Davids and Sheldon Leemon

Recommended for ages 14 and up
Written in BASIC

Build and test Direct Current electrical circuits

Here's an imaginative program that lets you build an electrical circuit on your TV screen. If you plan everything right, a light bulb snaps on to congratulate you! The program is invaluable in school electronics and physics labs, but it's also useful to anyone wanting to learn about electric circuits.

The program allows you to work with series, parallel, or combination series/parallel circuit layouts. You use a joystick to place switches, light bulbs, resistors, ammeters and voltmeters in the circuit. After building the circuit, you close the main switch and the circuit comes to life. The meters show voltages and currents, and the bulbs even light. You'll see how voltage, current, and resistance are related. If the light bulb doesn't light up, you can redraw the circuit, or replace the components.

If you're working on your own, and find that your circuit needs modifying, the manual gives you plenty of help. It explains design theory in some detail, including the appropriate laws of physics. Complete formulas and diagrams help you test your circuit, calculate the effect of the values, and show you how to do the calculations.

The authors invite written questions and comments.

REVIEW COMMENTS
Tested in high school physics and electronics classes, this program is a graphically excellent simulation. Students can use it to test any type of series or parallel circuits simply by using a joystick. This program makes electronics simple to understand, and provides interesting insights into physics principles.

REQUIRES
ATARI BASIC Language Cartridge
One ATARI Joystick Controller

ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	$24.95	APX-20215
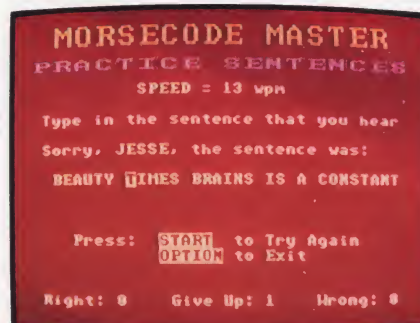
Morsecode Master
by James Bayless

Recommended for ages 8 and up
Written in BASIC

Learn and practice characters, words, and sentences in Morse code

If you're an aspiring amateur radio operator, you know you have to learn Morse code thoroughly before you can be licensed. That used to mean hours of drudgery with charts of dots and dashes. Somehow, no matter how long you practiced, the dots and dashes on the charts seemed completely different from the beep sounds you heard when Morse code was actually used. And learning characters one by one was no way to prepare for the complete sentences you'd have to decipher.

Morsecode Master gives you a way to practice that's both realistic and fun. You begin by typing the character (letter, number, or punctuation mark) you want to learn. The program sounds the code for that character three times in long and short beeps. When you're ready to practice, you can listen to characters chosen randomly and try to identify them.

Then you can practice with words. The program signals whole words (from its repertoire of 400) and you type them in response. If you don't recognize them, you can ask for the answer.

Finally, you can practice with complete sentences as your proficiency grows. This is the most accurate simulation of what it's like to use Morse code. At any time, you can vary the speed and pitch of the drills.

The author invites written comments and questions.

REVIEW COMMENTS
Features like complete sentences and changeable speed and tone make this the best teaching program of its kind.

The user manual is helpful, featuring an appendix with a chart of Morse code signals.

REQUIRES
ATARI BASIC Language Cartridge

ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	24K	$29.95	APX-10211
Diskette (810)	32K	$29.95	APX-20211

Three R Math Home System
by Dan Rohr

Recommended for ages 5–13
Written in BASIC

Bring the widely acclaimed Three R Math System into the home

Parents whose children are using *Three R Math Classroom Kit* in school tell us they're impressed. The program gives their children work on the precise level they need, it analyzes their progress in detail, it holds their interest with its novel approach, and it encourages them to keep trying. Because of its success in the classroom, an easy-to-use, one-disk version, which omits the grade book feature, was created for home use.

It offers all the same lively (but educationally sound) drills and analyses of the classroom system for the home. Not only does the program give children as much time as they want to practice, but it also is an ideal way for parents and children to work cooperatively.

Parents select one of 101 skill levels of addition, subtraction, multiplication, and division, and incorporate it into a five-letter password specifying the speed, number of problems per assignment, and total time allowed. The child has only to type his name and the password, and the drills begin. The program congratulates and encourages him as he works, and then summarizes his results. It's easy to print a complete analysis of his progress along with extra problems. Worksheets can be printed on any of the 101 levels to supplement the drills on the screen. Answer keys are also available.

The author invites questions and comments by mail and telephone.

REVIEW COMMENTS
The user manual is detailed, including a complete guide to the 101 difficulty levels. The manual suggests ways parents can help their children use the program most effectively.

REQUIRES
ATARI BASIC Language Cartridge

OPTIONAL
ATARI 825 80-Column Printer or Epson MX-80 Printer

ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	40K	$24.95	APX-20208
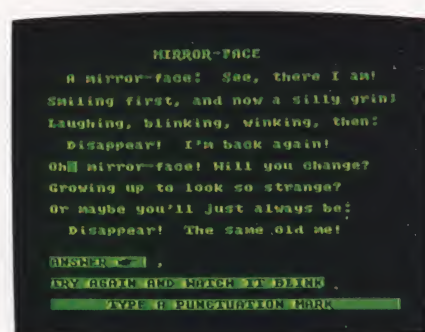
Punctuation Put-on
by John D. Perron

Recommended for ages 8–14
Written in BASIC

Practice punctuation in dialogue, narrative, and poetry

Writers use punctuation to express the pauses, gestures, and emotional content of speech. But when children learn to punctuate, they often have to study arbitrary rules, and they apply the rules to lists of sentences that don't appear in any natural context. Eventually they find that *real* writers bend those rules to express themselves. *Punctuation Put-on* puts the student in the place of the writer, making judgments about what punctuation marks enhance the program's dialogue, narrative, and poetry selections.

The program drills the use of the exclamation point, quotation marks, colon, semicolon, question mark, apostrophe, comma, and period. Young children might not know how to type all these punctuation marks, so there's a special section for them. When they're ready to tackle the program's "stories" section, they choose a short anecdote, a poem, or a dialogue. The program displays the selection with all the punctuation marks intact, and then replaces one mark with a flashing cursor. The child types in the mark belonging in that place. The program congratulates him, often using his name. If he makes a mistake, he sees the correct answer, and he can try again. Children can see how many marks they got right out of how many tries. They can even see how many errors they made on each punctuation mark.

The manual discusses the theory behind the program and contains suggestions for determining the appropriate level for each child using the program.

The author invites written questions and comments.

REVIEW COMMENTS
The program teaches punctuation in an enjoyable, contextual environment. It's limited to five writing selections, and it doesn't detect examples having more than one acceptable answer.

REQUIRES
ATARI BASIC Language Cartridge

ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	$24.95	APX-20205

Learning

Program	Accessories	Cassette* RAM	Cassette* Order No.	Diskette** RAM	Diskette** Order No.	Price
Algicalc by The Soft Warehouse — Perform symbolic algebra and some calculus (ages 14 and up)	[B]	24K	APX-10126	32K	APX-20126	$24.95
Atlas of Canada — Learn the provinces, capitals, and landmarks of Canada (ages 10 and up)	[B]	16K	APX-10093	32K	APX-20093	$24.95
Calculus Demon by The Soft Warehouse — Derive symbolic partial derivatives and indefinite integrals of expressions (ages 16 and up)	[B]	32K	APX-10155	40K	APX-20155	$24.95
Counter by Al Casper — An introduction to numbers in four languages (ages 3-8)	[B]	16K	APX-10148	24K	APX-20148	$29.95
Cubbyholes■ by Dale Disharoon — An addition game for 1–2 players (ages 5–12). The latest version fixes a bug on the two-player option that prevented repeat play.	[PAL] [B]	16K	APX-10101	24K	APX-20101	$24.95
Earth Science by the Minnesota Educational Computing Consortium — Lessons on earthquakes, minerals, and the solar system (grades 5–12)	[B]	N/A		16K	APX-20160	$29.95
Easygrader by Dan Hale of A. D. Enterprises — Organize, analyze, and print class records. The latest version prevents users from entering assignment points larger than the program can accept and it now allows up to 255 points for an assignment.	[B] • Diskettes for storing records	N/A		40K	APX-20152	$24.95
Elementary Biology by the Minnesota Educational Computing Consortium — A circulatory tutorial and two ecology simulations (grades 4–8)	[B]	N/A		16K	APX-20136	$29.95

SYMBOLS USED

Cartridges:
[B] ATARI BASIC Language Cartridge
[A] Assembler Editor Cartridge
[P] ATARI PILOT

Accessories listed in boldface type are required.
All others are optional.
Symbols in color are required.
Grey symbols are optional.

Printers:
[820] ATARI 820 40-Column Printer
[822] ATARI 822 Thermal Printer
[825] ATARI 825 80-Column Printer
ATARI printer or equivalent printer

Controllers:
ATARI Joystick Controller
ATARI Paddle Controller

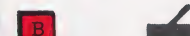* Requires an ATARI 410 Program Recorder
** Requires an ATARI 810 Disk Drive

★ ATARI Special Award of Merit

Learning

Program	Accessories	Cassette*		Diskette**		Price
		RAM	Order No.	RAM	Order No.	
Escape to Equatus by Thomas Ferguson Help the Mathemen escape by solving problems (ages 5 and up)	B	24K	APX-10190	24K	APX-20190	$24.95
Flags of Europe by Gary A. Dacus Two quizzes for identifying flags (ages 8 and up)	B		N/A	40K	APX-20149	$24.95
Frogmaster by Michael Crick PAL A fast-moving game for 1−2 players based on behavior modification (ages 9 and up)	B		N/A	24K	APX-20131	$24.95
Geography by the Minnesota Educational Computing Consortium Identify capitals, states, countries, and continents (grades 4−10)	B		N/A	16K	APX-20164	$29.95
Hickory Dickory by Dale Disharoon Teaches traditional and digital clock reading (ages 5−11)	B	16K	APX-10071	24K	APX-20071	$17.95
I'm Different! by Kathleen and Philip Bergh Colorful workbook-style exercises for preschoolers (ages 3−7)	P		N/A	32K	APX-20183	$24.95
Instructional Computing Demonstration by the Minnesota Educational Computing Consortium Demonstrations of learning techniques in MECC programs (for teachers)	B		N/A	16K	APX-20137	$29.95
Letterman by Ed Stewart and Ray Lyons A friendly hangman for 1−2 players (ages 8 and up)	B	16K	APX-10096	32K	APX-20096	$24.95
The Magic Melody Box by W. Wes Horlacher Draw a melody line and hear it play (ages 3 and up)	B	16K	APX-10182	24K	APX-20182	$17.95
Mapware ★ by Harry Koons and Art Prag Create and store finely detailed world maps (ages 14 and up)	B		N/A	40K	APX-20055	$24.95
The Market Place by the Minnesota Educational Computing Consortium Learn basic economic concepts by managing businesses (grades 3−8)	B		N/A	16K	APX-20162	$29.95

Learning

Program	Accessories	Cassette*		Diskette**		
		RAM	Order No.	RAM	Order No.	Price
Math Mission by Dave Kosmal Explore new planets with answers to math problems for fuel (ages 6–10)	[B] ◢	16K	APX-10193	24K	APX-20193	$24.95
Math*UFO by Gregor Novak An arcade-style arithmetic game for 1–2 players (ages 8–12)	[B] ◢	24K	APX-10151	32K	APX-20151	$24.95
Mathematic-Tac-Toe by Nadav Caine Two-player arithmetic drills (ages 8–16)	[B]	16K	APX-10082	24K	APX-20082	$17.95
Metric and Problem Solving by the Minnesota Educational Computing Consortium Practice using the metric system and problem solving techniques (grades 2–6)	[B]	N/A		16K	APX-20138	$29.95
Monkey Up a Tree by Joe Grande Solve problems so the monkey can reach the bananas (ages 4 and up)	[B]	24K	APX-10165	24K	APX-20165	$24.95
Music I — Terms & Notations by the Minnesota Educational Computing Consortium Drills for identifying notes, keys, and terms (grades 5–10)	[B]	N/A		16K	APX-20139	$29.95
Music II — Rhythm & Pitch by the Minnesota Educational Computing Consortium Six drills and practices in rhythm and pitch (grades 5–10)	[B]	N/A		16K	APX-20172	$29.95
Music III — Scales & Chords by the Minnesota Educational Computing Consortium Five practices for recognizing musical tones (grades 3–10)	[B]	N/A		16K	APX-20161	$29.95
Musical Computer — The Music Tutor by Computer Applications Tomorrow An overview of the mechanics of music (ages 6 and up)	[B]	N/A		40K	APX-20098	$17.95
My Spelling Easel by Al P. Casper Paint landscapes on your computer by typing letters and spelling words (ages 3–10)	[B] ◢	16K	APX-10200	24K	APX-20200	$29.95

Learning

Program	Accessories	Cassette*		Diskette**		
		RAM	Order No.	RAM	Order No.	Price
Number Blast by Richard Wiitala A multiplication and addition game for 1–2 players (ages 6–10)	B	16K	APX-10097	24K	APX-20097	$17.95
Polycalc by The Soft Warehouse Perform symbolic algebra and calculus with polynomials (ages 14 and up)	B	24K	APX-10127	32K	APX-20127	$24.95
Prefixes by the Minnesota Educational Computing Consortium Drills and games for learning prefixes (grades 3–6)	B		N/A	16K	APX-20163	$29.95
Presidents of the United States by Gary A. Dacus One-player quizzes on U. S. presidents (ages 10 and up)	B	24K	APX-10068	32K	APX-20068	$17.95

Learning

Program	Accessories	Cassette* RAM	Cassette* Order No.	Diskette** RAM	Diskette** Order No.	Price
Quiz Master by Ingrid Langevin — Create and use five kinds of computer-assisted quizzes (ages 8 and up)	B		N/A	32K	APX-20081	$24.95
Spelling Genie by Dale Disharoon — Four one-player spelling games using preset lists or your own (ages 5–14)	B	16K	APX-10145	24K	APX-20145	$24.95
Starware ★ PAL by Harry Koons and Art Prag — Sky map generator and constellation quiz (ages 14 and up)	B		N/A	40K	APX-20111	$24.95
Stereo 3-D Graphics Package by Clyde Spencer — Produce wire-frame stereograms (ages 16 and up)	B • Pocket stereoscope • Polaroid camera • Anaglyphic glasses		N/A	32K	APX-20087	$24.95
Teasers by Tobbs by Thomas C. O'Brien and Sunburst Communications — Tell Tobbs how to solve math problems in a puzzle grid (ages 8 and up)	B	N/A		16K	APX-20201	$29.95
Three R Math Classroom Kit by Dan Rohr — Create and use customized math drills, plus worksheets and gradebook (ages 5–13)	B 825 • Diskettes for storing records	N/A		40K	APX-20203	$49.95
Typo Attack ■ by David Buehler — Grand Prize — Type the right key and hit the typos! (ages 8 and up). The latest version automatically plays tunes.		8K	APX-10180	16K	APX-20180	$29.95
Video Math Flash Cards PAL by Richard S. Waller — Two-minute, one-player math drills (ages 6–10). The latest version contains no discouraging messages.	B	16K	APX-10048	24K	APX-20048	$17.95
Word Search Generator by Max Mulliner — Create and play word search puzzles (ages 6 and up)	B 825		N/A	24K	APX-20140	$24.95
Wordmaker PAL by Dale Disharoon — A vocabulary and spelling game for 1–2 players (ages 6 and up)	B	32K	APX-10099	40K	APX-20099	$24.95

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Health 60% Food:0 Bombs:0 Keys:0 000140
Health 80% Food:0 Bombs:0 Keys:0 000010
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Mode: Two Players    Easy    Level A
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Dandy
by John H. Palevich

Recommended for ages 8 and up
Written in machine language

Conquer 26 dungeons through cooperation

"Where *are* you going? The spawners are that way! We need to pick up the food and bombs below us before we can tackle them."

"OK, I'll cover you while you get food. Then come up behind me as soon as you can and once I wipe out the monsters, we'll rush the rest of the area. Got it? Let's go!"

"Ahhh! I'm dead! Forget the food and go find a heart so I can be reincarnated. You need my help!"

Dandy is a twenty-six level dungeon adventure in which cooperation among players rather than competition is the key to success. You and up to three more players must get past denizens of varying danger; you lose strength each time a monster rams you, and you must constantly stock up on food and then remember to re-plenish your strength by consuming food units when your health deteriorates. Should you lose all strength, you wind up in limbo, but another player can revive you by shooting an arrow into a heart. You can pick up smart bombs along the way and drop them at strategic times to wipe out all monsters in the area. You also must find

keys to unlock secured areas of each maze. After explor-ing a dungeon, you head for the down disk to warp to the next dungeon.

Dandy will provide hours and hours of challenging dis-covery. Although all movement is done with joysticks, you must also hover over the computer keyboard to re-build your health and to drop bombs. The combination only adds to the frenzy and fun. And once you master all the dungeons, the game isn't over. You can start over at higher difficulty levels, and then you can create your own dungeons with the maze editor that comes with the program. *Dandy* is certain to become a favorite in your game collection.

The author invites written questions and comments.

REVIEW COMMENTS
Dandy is an excellent game for one to four players in-volving a unique sharing style of game play. (It's a one-or two-player game on the ATARI 1200XL Home Com-puter.) The whole family will get caught up in this game.

REQUIRES
One ATARI Joystick Controller per player

OPTIONAL
ATARI BASIC Language Cartridge
ATARI 825 80-Column Printer or equivalent printer
Diskette(s) for creating your own mazes

ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	40K	$29.95	APX-20210

Smasher
by Chris and John Goodman

Recommended for ages 8 and up
Written in machine language

Defend your empire by smashing enemy spacecraft

The might of your empire is known far and wide, and that's why enemies from all over the galaxy are attacking you. So far, you've been safe, because you control the most colossal weapon ever devised: the *Smasher*. It can easily crush any enemy craft that threaten you. But now the dread Vorpons are swarming through your intergalactic port! Their ships, containing explosives, cruise relentlessly back and forth, menacing the *Smasher* itself. And you've heard rumors of their deadly mystery ship . . . what terrors does it hold?

The *Smasher* patrols the area on the screen by demolishing enemy craft in its path. You use your joystick controller to move the *Smasher* into position and press the red button to crush invaders. Beware! Some of the enemy craft are cruisers containing enough explosives to destroy the *Smasher* and leave you defenseless. If the enemy ships cruise back and forth unchallenged, they capture part of your territory. The *Smasher* is destroyed if you touch the captured areas, which encroach on more and more of your port. Even if you successfully defend your empire a while, you can't afford to be complacent, because the mystery ship can appear on the higher levels of the game.

Alone or with another player, you score points by smashing enemy craft. Each time you score 50,000 points, you get another *Smasher*. Good luck! Your empire is counting on you!

REVIEW COMMENTS
Smasher is a fast-paced, aggressive, exciting game.

REQUIRES
One ATARI Joystick Controller per player

ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	24K	$24.95	APX-10219
Diskette (810)	24K	$24.95	APX-20219
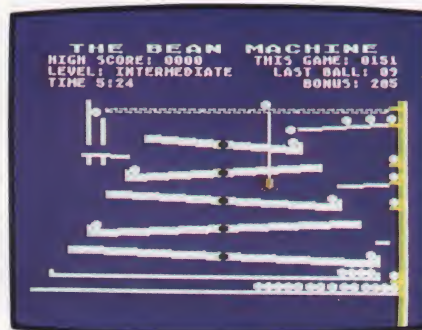
The Bean Machine
by Steve Robinson

Recommended for ages 6 and up
Written in machine language

Slant beams to guide beans through the bean machine

Here's a game that uses the law of gravity. In *The Bean Machine*, your goal is to rack up points by maneuvering a series of teeter-totter beams so that 33 beans roll from top to bottom in the least amount of time. The beans start out by rolling across the bottom of the machine and onto an elevator that lifts them to a conveyor belt at the top of the course. Some spill out along the way and start their downward trek at that point. The ones making it to the top move across the conveyor belt, fall down a chute, and then start their journey downward. Your job is to use your joystick controller to tip the beams so that the beans continue to roll from one teeter-totter to the next, until the beans come to rest in the bottom trough. You must constantly reangle the beams because as a bean falls onto a slanting beam, its weight tends to flatten out the beam or slant it in the opposite direction.

Of course, it's not as simple as that. If one bean is stalled on a beam and another bean rolls into it, the beans destroy each other and are replaced by new beans at the bottom. In addition, various impediments lurk about the course. For starters, there's a bean-gobbling red spider. Then you must time your beans to roll under Horrible Mitch, but you can blast right into Little Mickey, earning yourself some points and getting rid of him . . . temporarily. The Masked Mumbo loves to undo your work by rebalancing the beams, but you can roll right over him for revenge. Once you master the beginning level, you can go on to the higher levels, where the beans travel faster. A lively tune accompanies the action.

The author invites written questions and comments.

REVIEW COMMENTS
The game simulates gravity and the motion of the beans very well. It could be tougher on the higher levels.

REQUIRES
One ATARI Joystick Controller

ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	24K	$24.95	APX-10206
Diskette (810)	24K	$24.95	APX-20206
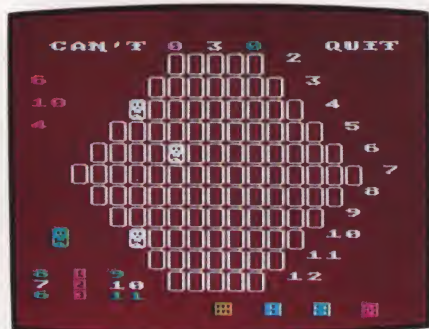
Can't Quit
by John Harris

Recommended for ages 8 and up
Written in BASIC and machine language

Strategize against the odds in a dice game

Success at *Can't Quit* comes from knowing just when to be bold, and when to fold. Since nobody ever does know, this game has surprise after surprise for its players. Luck certainly helps, but it isn't everything. Each roll of the dice forces you to decide: quit now, or take a chance? You'll see who's cautious and who's reckless as you watch the progress of your game tokens across the board.

You can play against another player or against the computer. The diamond-shaped game board is composed of eleven rows of boxes, one row for each number from 2 through 12. When it's your turn, you use a joystick to roll four dice. Then you decide how to pair those dice. If you choose a 3 and a 7, for example, game tokens move one space to the right on rows 3 and 7. The object of the game is to have your tokens move completely to the right on 3 rows (or 4 if you choose).

It sounds at first as if all you have to do is keep on rolling dice until you move completely to the right. But it's not that simple! If you push your luck too far, you wipe out all the progress you've made. You have to resist taking that last turn before you've gone too far. You can play by hunches and guesses, or you can strategize on probabilities — it's fun any way you play.

The author invites written comments and questions.

REVIEW COMMENTS
The game tests your familiarity with the odds of combinations on dice. There are opportunities to strategize. Joystick use makes the game easy to play. The colorful screen is attractive.

REQUIRES
ATARI BASIC Language Cartridge
One ATARI Joystick Controller

ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	$24.95	APX-10220
Diskette (810)	32K	$24.95	APX-20220
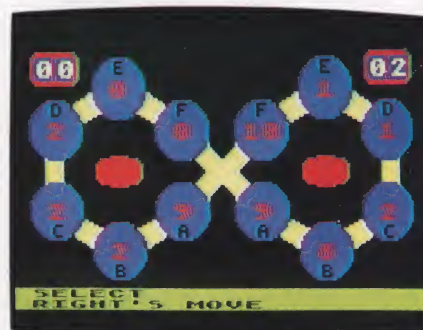
Ennumereight
by Philip Baker

Recommended for ages 7 and up
Written in machine language

Move numbers around a circuit to win points

If you're a fan of awari or Mankala, or if you like strategy games, you'll enjoy *Ennumereight.* The playing board is a sideways figure eight, one side belonging to you and the other to your opponent. Each side has six circles; each circle holds a number. When you select a circle on your side, its number is redistributed into the succeeding circles all along the figure eight circuit, and one point is added to the number in each circle until the points are used up. If the last circle to receive a point then contains a two or three and is on your opponent's side, you win the points in that circle, along with those in as many adjacent preceding circles on your opponent's side as hold a two or three. Then your opponent takes a turn. The game ends when all the circles on one side contain no points and the winner is the player with more points. The arithmetic is simple, but you must keep track not only of the effect of your own moves, but also those of your opponent. The more you think ahead to possible consequences, the better your chances of winning.

Ennumereight offers several options. You can play against another player or against the computer, or you can sit back and watch the computer battle against itself. For games with the computer as player, you can choose from seven levels of difficulty; the higher the level, the more time the computer takes to evaluate its move. You also can select the initial number of points per circle; the more points, the longer the game. And players of all ages will enjoy *Ennumereight*'s interesting game animation.

The author invites questions and comments by mail and telephone.

REVIEW COMMENTS
This game tests your logic and strategy skills. The graphics and sounds are an integral part of the game play.

REQUIRES
No required accessories

ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	$24.95	APX-10204
Diskette (810)	24K	$24.95	APX-20204
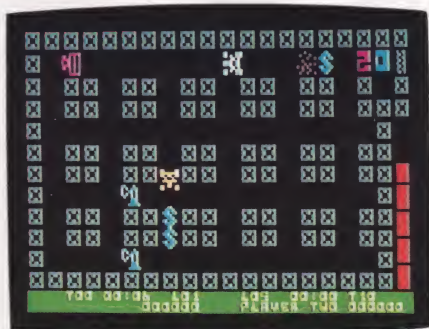
Bootleg
by E. M. Freeman

Recommended for ages 8 and up
Written in machine language

Dodge the Prohibition agent through 20 maze screens

The speakeasies are counting on you! Unless you can deliver the moonshine, they can't open tonight — and you've heard they don't like to be disappointed. In your delivery wagon, you're threading your way through the city streets, trying not to get lost or run out of gas. You've got to keep an eye out for a determined Prohibition agent armed with a supercharged patrol car. He can call ahead for roadblocks, but you know a few tricks to slow him down.

Using your joystick controller, you move the delivery wagon around a maze, stopping whenever you see symbols such as goblets or flagons. For each delivery, you're paid off in points added to your score. After you've made ten deliveries, you can move to another screen (there are twenty different screens in all). If you're playing against another bootlegger, you alternate turns to try for the higher score.

Your biggest worry is the Prohibition agent. His car moves faster than yours, and he throws out roadblocks when you least expect them. If you meet him, you crash and that round of the game ends. You can use a trap to thwart his pursuit, but it doesn't stop him for long, and it costs you points. You have five lives — and you need them!

Whenever an electrical storm passes over the terrain, it puts the Prohibition agent's radar out of action. This is a good time to escape or increase your score.

A last warning: don't run out of gas! A fuel gauge displays to show you how much you have left, and you can find fuel pumps at different spots on the mazes. After a hard day's work, why not stop, knock three times, and tell 'em Joe sent you?

The author invites written comments and questions.

REVIEW COMMENTS
You can use offensive and defensive elements to strategize. With twenty screens, there's plenty of variety.

REQUIRES
One ATARI Joystick Controller per player

ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	$24.95	APX-10218
Diskette (810)	24K	$24.95	APX-20218

Entertainment

Program	Accessories	Cassette* RAM	Cassette* Order No.	Diskette** RAM	Diskette** Order No.	Price
Air-Raid! by Chuck Gibke Head off the bombers before they reach the city (ages 8 and up)	joystick	16K	APX-10187	24K	APX-20187	$29.95
Alien Egg by Robert Zdybel Return the specimen to the spaceship — a text adventure game (ages 10 and up)	B	N/A		24K	APX-20022	$17.95
Anthill by Steve Bittrolff Beat your opponent to the top of the maze (ages 8 and up)	B, joystick	8K	APX-10024	16K	APX-20024	$17.95
Attank! by Joel Gluck PAL Destroy your opponent's tanks on the battlefield (ages 10 and up)	B, joystick	24K	APX-10072	32K	APX-20072	$24.95
Avalanche by Dennis Koble PAL Absorb falling rocks with shields (ages 6 and up)	paddle	16K	APX-10003	16K	APX-20003	$24.95
Babel by Joel Gluck PAL Build towers to reach the stars (ages 8 and up)	B, joystick	16K	APX-10038	24K	APX-20038	$24.95
Blackjack Casino by Bill Zimmerman A computerized version of blackjack for 1–4 players (ages 10 and up)	joystick	8K	APX-10064	16K	APX-20064	$17.95
Block Buster by Alan Griesemer and Stephen Bradshaw PAL (crossed out) A cube puzzle and puzzle solver (ages 9 and up)	printer, controller	32K	APX-10110	32K	APX-20110	$17.95
Block 'Em by Jose Suarez Force your opponent into a wall (ages 8 and up)	B, joystick	16K	APX-10090	24K	APX-20090	$17.95

SYMBOLS USED

Cartridges:
- B ATARI BASIC Language Cartridge
- A Assembler Editor Cartridge
- P ATARI PILOT

Accessories listed in boldface type are required.
All others are optional.
Symbols in color are required.
Grey symbols are optional.

Printers:
- 820 ATARI 820 40-Column Printer
- 822 ATARI 822 Thermal Printer
- 825 ATARI 825 80-Column Printer
- ATARI printer or equivalent printer

Controllers:
- ATARI Joystick Controller
- ATARI Paddle Controller

* Requires an ATARI 410 Program Recorder
** Requires an ATARI 810 Disk Drive

★ ATARI Special Award of Merit

28

Entertainment

Program	Accessories	Cassette* RAM	Cassette* Order No.	Diskette** RAM	Diskette** Order No.	Price
Bumper Pool by Steve Smith — A two-player version of the popular pool hall game (ages 8 and up)	B	16K	APX-10053	24K	APX-20053	$17.95
Caterpiggle by Scott Ludwig — Devour snakes crawling through a maze (age 7 and up)		16K	APX-10194	24K	APX-20194	$24.95
Centurion by Robert Zdybel — Destroy the barbarians in this real-time war game (ages 14 and up)	B	16K	APX-10016	24K	APX-20016	$17.95
Checker King PAL by William H. Northrup — Computerized checkers for 1–2 players (ages 7 and up)		16K	APX-10129	16K	APX-20129	$24.95
Chinese Puzzle by Dennis Koble — Escape a maze of colored rooms — a text adventure game (ages 14 and up)	B		N/A	24K	APX-20023	$17.95
CodeCracker by Jose R. Suarez — Break the three- and five-digit code within twelve guesses (ages 12 and up)	B	8K	APX-10052	16K	APX-20052	$17.95
Cribbage PAL by Jose R. Suarez — A one-player computerized version of the English card game (ages 12 and up)	B	32K	APX-10141	40K	APX-20141	$17.95
Diggerbonk by Steve Robinson — Bonk everything in your path in a vertically scrolling maze (ages 8 and up)		16K	APX-10202	16K	APX-20202	$24.95
Domination ■ by Alan M. Newman — A three-stage strategy game of superpowers (ages 12 and up). The latest version has easier-to-use screen displays and better messages.	B	24K	APX-10041	32K	APX-20041	$24.95
Downhill PAL by Mark Reid — Steer your skier around trees and through gates (ages 8 and up)	B	16K	APX-10063	32K	APX-20063	$24.95
Eastern Front (1941) PAL by Chris Crawford — Original award-winning one-player simulation of the German invasion of Russia (ages 14 and up)		16K	APX-10050	32K	APX-20050	$29.95

Program	Accessories	Cassette*		Diskette**		Price
		RAM	Order No.	RAM	Order No.	
Galahad and the Holy Grail ■ PAL ★ by Douglas Crockford A graphic adventure with almost 100 rooms. The latest version works on the ATARI 1200XL Computer.			N/A	32K	APX-20132	$29.95
Game Show by Hung A. Pham Predict the most popular answers to questions (ages 10 and up)			N/A	24K	APX-20168	$17.95
Getaway! by Mark Reid Find the loot and stash it in your hideout before the law nabs you (ages 6 and up)		32K	APX-10195	32K	APX-20195	$29.95
Graphics/Sound Demonstration Demonstrations of the ATARI Computer's graphics and sound effects (ages 14 and up)			N/A	32K	APX-20028	$17.95
Gridiron Glory by Mike Drury and Bob Graves Coach your favorite football team to victory (ages 12 and up)			N/A	32K	APX-20188	$24.95
Impact by David Buehler Bump off all your opponents' skimmers but stay out of their way (ages 7 and up)		8K	APX-10196	16K	APX-20196	$17.95
Jax-O PAL by John Ortiz Computerized jacks for 1–4 players (ages 7 and up)		16K	APX-10121	24K	APX-20121	$17.95

Entertainment

Program	Accessories	Cassette* RAM	Cassette* Order No.	Diskette** RAM	Diskette** Order No.	Price
Jukebox #1 ★ PAL [B] by Lee Actor. Eight classical music selections (ages 6 and up)			N/A	32K	APX-20135	$17.95
Lookahead [B] by Johnson Software. Outwit your opponent in this strategy game played on a number grid (ages 8 and up)		24K	APX-10032	24K	APX-20032	$17.95
Mankala PAL by Elizabeth Chase MacRae. A computerized African stone-and-board game for 1-2 players (ages 8 and up)		16K	APX-10156	16K	APX-20156	$24.95
Melt-Down by Stephen Romejko. Fill a leaking reactor before it melts down (ages 8 and up)		16K	APX-10178	32K	APX-20178	$24.95
Memory Match [B] by Bruce Frumker. One–four players match pairs of objects hidden in a grid (ages 6 and up)		16K	APX-10070	24K	APX-20070	$24.95
Microsailing ■ [B] by Glenn Faden. Sail through four courses that teach tacking and gybing (ages 8 and up). The latest version is usable on an ATARI 1200XL Computer.		N/A		32K	APX-20176	$17.95
The Midas Touch PAL [B] by Duane Bolster. Guess a phrase before time runs out (ages 8 and up)		32K	APX-10115	32K	APX-20115	$17.95
Minotaur [B] by Steven Cavin. Find your way out of a two-dimensional random maze before the Minotaur devours you (ages 9 and up)		24K	APX-10039	32K	APX-20039	$17.95
Outlaw/Howitzer PAL. Two games of marksmanship for 1–2 players (ages 8 and up)		24K	APX-10004	24K	APX-20004	$24.95
Phobos ■ by Greg Christensen. Master 16 levels of defense (ages 8 and up). The latest version fixes a sound problem when used on the ATARI 1200XL Computer.		16K	APX-10184	16K	APX-20184	$29.95

31

Entertainment

Program	Accessories	Cassette*		Diskette**		Price
		RAM	Order No.	RAM	Order No.	
Pro Bowling by Wesley B. Newell Computerized bowling for 1–4 players (ages 6 and up)	B	16K	APX-10061	24K	APX-20061	$17.95
Pushky by Yakov Epelboim Zap the clouds and your opponent with your pushky (ages 6 and up)			N/A	48K	APX-20186	$24.95
Pushover PAL by Joel Gluck React quickly to push your opponent over a cliff (ages 8 and up)	B	32K	APX-10116	32K	APX-20116	$24.95
Quarxon by Scott Ludwig Break through the boundary and destroy the Droids (ages 7 and up)		16K	APX-10174	24K	APX-20174	$29.95
Rabbotz PAL by Jeff Johannigman Zap the Rabbotz before they reproduce (ages 10 and up)	B	16K	APX-10119	24K	APX-20119	$24.95
Reversi II PAL by Russell Segal Outflank your opponent's squares on two sides (ages 6 and up)		16K	APX-10077	24K	APX-20077	$24.95
Salmon Run PAL by Bill Williams Help Sam the salmon swim upstream to spawn (ages 8 and up)		16K	APX-10120	24K	APX-20120	$24.95
747 Landing Simulator PAL by William J. Graham Land your own 747 jet airliner (ages 12 and up)	B	24K	APX-10043	32K	APX-20043	$24.95

Entertainment

Program	Accessories	Cassette* RAM	Cassette* Order No.	Diskette** RAM	Diskette** Order No.	Price
Seven Card Stud ■ [PAL] by Monty Webb Play poker with five programmable computer opponents (ages 10 and up). The latest version improves card evaluation and card character display.	[B] 🖐	24K	APX-10118	32K	APX-20118	$17.95
Snark Hunt by Jeff Johannigman 1−8 players shoot vorpal beams to find the hidden snarks (ages 8 and up)	[B] 🖐	16K	APX-10154	24K	APX-20154	$24.95
Solitaire by Mark Reid A computerized version of the card game (ages 10 and up)	[B] 🖐	16K	APX-10089	24K	APX-20089	$17.95
Source Code for Eastern Front (1941) by Chris Crawford A behind-the-scenes look at creating a complex war game (for advanced programmers)	[A]	N/A		40K	APX-20095	$49.95
Space Chase by Fernando Herrera Conquer all the planets to enter the next galaxy (ages 8 and up)	[B] 🖐	16K	APX-10088	24K	APX-20088	$24.95
Space Trek by Bob Polaro Destroy the enemy Oralop spaceships that are threatening the galaxy (ages 14 and up)	[B]	24K	APX-10015	32K	APX-20015	$17.95
Tact Trek by Robert Zdybel A tactical-level interstellar combat game calling for lots of patience (ages 14 and up)	[B]	24K	APX-10031	32K	APX-20031	$17.95
Terry by Ingrid Langevin Converse with your very own tongue-in-cheek analyst (ages 10 and up)	[B]	32K	APX-10047	32K	APX-20047	$17.95
Wizard's Gold Find a hidden bar of gold — a text adventure game (ages 10 and up)	[B]	N/A		24K	APX-20020	$17.95
Wizard's Revenge by Max Manowski See if you can escape the wizard — a text adventure game (ages 10 and up)	[B]	N/A		24K	APX-20054	$17.95
Yahtman by Dan Reinhart 1−6 players play dice poker with Yahtman (ages 6 and up)	[B] 🖐	16K	APX-10175	24K	APX-20175	$24.95

Systems/Telecommunications

Program	Accessories	Cassette* RAM	Cassette* Order No.	Diskette** RAM	Diskette** Order No.	Price
ATARI Pascal Language System ISO Pascal with many enhancements (for advanced Pascal programmers)	825 • Two ATARI 810 Disk Drives • ATARI Program-Text Editor (APX-20075)		N/A	48K	APX-20102	$49.95
ATARI Program-Text Editor An editor for programs and text files (ages 14 and up)	B		N/A	32K	APX-20075	$39.95
BASIC Program Compressor (MASHER) by Dale Yocum and Jerry White Compress ATARI BASIC programs to free up memory	B		N/A	32K	APX-20008	$17.95
BASIC/XA by Thomas Newton Development tools for ATARI BASIC programmers	B	16K	APX-10177	24K	APX-20177	$29.95
BLIS by Image Marketing Corporation Print ATARI BASIC program listings in an easy-to-read format	B 825		N/A	16K	APX-20049	$24.95
Chameleon CRT Terminal Emulator by John H. Palevich Convert your computer into a GLASS TTY, ADM-3A, or VT-52 terminal (ages 14 and up)	• ATARI 830 Acoustic Modem or an RS-232C device • ATARI 850 Interface Module • ATARI MACRO Assembler	24K	APX-10058	32K	APX-20058	$24.95
Deep Blue C Compiler by John H. Palevich An implementation of the SMALL C language	A • ATARI Program-Text Editor or other non-line oriented text editor • ATARI MACRO Assembler		N/A	48K	APX-20166	$39.95

Systems/Telecommunications

Program	Accessories	Cassette* RAM	Cassette* Order No.	Diskette** RAM	Diskette** Order No.	Price
Deep Blue Secrets by John H. Palevich Source code for *Deep Blue C Compiler* (for advanced C programmers)	• Deep Blue C Compiler (APX-20166) • ATARI MACRO Assembler and Program-Text Editor (CX8121)		N/A	48K	APX-20179	$39.95
Disk Fixer/Load 'n Go Utilities to salvage destroyed diskettes and to autoload ATARI BASIC programs	[B]		N/A	24K	APX-20189	$29.95
Diskette Librarian by Ronald and Lynn Marcuse Catalog, update, search, sort, and print diskette file data (ages 14 and up)	[B] [825]	• Epson MX-80 Printer		N/A	24K	APX-20056	$24.95
Diskmenu by Al Harberg Load BASIC or machine-language programs with a single keystroke (ages 8 and up)	[B]		N/A	16K	APX-20173	$17.95
Dsembler by Volker Multhopp Study and debug assembler routines in ATARI BASIC programs	[B] [printer]	24K	APX-10065	24K	APX-20065	$24.95
Dunion's Debugging Tool (DDT) by Jim Dunion A debugging tool for use with the ATARI MACRO Assembler	[B]	• ATARI MACRO Assembler and Program-Text Editor (CX8121)	N/A	16K	APX-20150	$39.95
Extended fig-FORTH by Patrick Mullarky Full implementation of standard fig-FORTH 1.1, with more definitions (for advanced programmers). The cassette version is a subset of the diskette version, is primarily an introduction to FORTH, and is not suitable as a software development system.		16K	APX-10029	24K	APX-20029	$39.95

Cartridges:
[B] ATARI BASIC Language Cartridge
[A] Assembler Editor Cartridge
[P] ATARI PILOT

Accessories listed in boldface type are required.
All others are optional.
Symbols in color are required.
Grey symbols are optional.

Printers:
[820] ATARI 820 40-Column Printer
[822] ATARI 822 Thermal Printer
[825] ATARI 825 80-Column Printer
ATARI printer or equivalent printer

Controllers:
ATARI Joystick Controller
ATARI Paddle Controller

* Requires an ATARI 410 Program Recorder
** Requires an ATARI 810 Disk Drive

★ ATARI Special Award of Merit

Systems/Telecommunications

Program	Accessories	Cassette* RAM	Cassette* Order No.	Diskette** RAM	Diskette** Order No.	Price
Extended WSFN by Harry Stewart An educational graphics language for beginning programmers		16K	APX-10026	24K	APX-20026	$24.95
FORTH Turtle Graphics Plus by William D. Volk Turtle graphics for use with *Extended fig-FORTH*	• **Extended fig-FORTH (APX-20029)** • Epson MX-80 or MX-100 printer with GRAFTRAX	N/A		24K	APX-20157	$17.95
fun-FORTH by Joel Gluck Sound and graphics commands for use with *Extended fig-FORTH*	• **Extended fig-FORTH (APX-20029)**	N/A		24K	APX-20146	$24.95
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Hex-A-Bug by David Kano A hexadecimal-based, screen-oriented debugging tool for the ATARI Computer (for assembly language programmers)	A • Assembler Editor Cartridge • ATARI MACRO Assembler	N/A		48K	APX-20199	$39.95
Insomnia (A Sound Editor) by Bob Fraser Generate up to four-second sounds with up to four voices (for BASIC programmers)	B	N/A		24K	APX-20073	$24.95
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Keypad Controller by Thomas D. Newton Convert ATARI Keyboard Controllers to numeric keypads and a program editor	B or A • **A pair of ATARI Keyboard Controllers**	8K	APX-10106	24K	APX-20106	$17.95
Mantis Boot Tape Development System by John H. Palevich Develop assembler cassettes on disk-based systems	A • **ATARI 410 Program Recorder** • **ATARI MACRO Assembler and Program-Text Editor (CX8121)**	N/A		40K	APX-20143	$24.95

36

Systems/Telecommunications

Program	Accessories	Cassette* RAM	Cassette* Order No.	Diskette** RAM	Diskette** Order No.	Price
Mapmaker by Stephen W. Hall Create multiscreen, fine-scrolled map displays (ages 13 and up)	B · Instedit (APX-10060 or APX-20060) · Compatible character set editor		N/A	32K	APX-20144	$24.95
Microsoft BASIC Cross-reference Utility by Fred Thorlin A variable tracer for ATARI Microsoft BASIC programs	· ATARI Microsoft BASIC (CX8126)		N/A	40K	APX-20125	$17.95
Music Player by James Bayless A tool to use ATARI Music Composer files with your programs	B · Files created with ATARI Music Composer (CXL4007)		N/A	16K	APX-20181	$24.95
Player Generator by Paul G. Abell Create players, with storage and print features (ages 12 and up)	B	24K	APX-10117	32K	APX-20117	$17.95
Screen Dump Utility Print copies of any screen display			N/A	24K	APX-20045	$17.95
Sound Editor by Bob Smith Create one-second sounds like croaks and rattles	B	16K	APX-10018	24K	APX-20018	$24.95
Speed-O-Disk by Jubal Ragsdale and Dave Henry Test the speed of ATARI 810 Disk Drives			N/A	16K	APX-20109	$24.95
Supersort by Bob Fraser A high-speed sorting subroutine usable in BASIC programs	B A		N/A	24K	APX-20030	$24.95
T: A Text Display Device by Joseph J. Wrobel Intermix text and graphics on the same line in any graphics mode	B	8K	APX-10067	16K	APX-20067	$24.95
Utility Diskette II by RLM Microsystems Five ATARI BASIC file maintenance routines (ages 14 and up)	B 825		N/A	24K	APX-20124	$29.95

Publications

De Re ATARI
by Amy Chen, Jim Cox, Chris Crawford, Jim Dunion, Bob Fraser, Kathleen Pitta, and Lane Winner

Handbook for advanced programmers

$19.95 (APX-90008)

De Re ATARI tells you everything you want to know about the ATARI 400 and ATARI 800 Home Computers, but were afraid to ask. It's an excellent resource and training text for professional programmers who use ATARI Home Computers and for advanced hobbyists who understand ATARI BASIC and assembly language. Neither an introductory manual nor a reference for the computer, *De Re ATARI* is a tutorial that explains the concepts and principles behind the internal structure of the ATARI Home Computer.

Topics include graphics indirection (i.e., color registers and character sets), player-missile graphics, display list interrupts, scrolling, sound, the Operating System, the Disk Operating System, and ATARI BASIC. Many discussions concern the three special-purpose integrated circuits designed by ATARI — ANTIC (a microprocessor for television display), CTIA (a chip for television display), and POKEY (a chip for input/output and sound generation). Appendices contain information on memory usage, human engineering, the hardware and software used to operate the ATARI 410 Program Recorder, cassette applications, television artifacting, and the GTIA chip (the new television display chip). Sample programs, display screens, and diagrams generously illustrate the discussions on the strengths and versatility of ATARI Computers. A glossary defines and explains some less commonly encountered terms used in *De Re ATARI*.

An added feature is a laminated Programmer's Card containing the most critical and often needed facts and figures about the computer.

By the way, in case you were wondering, *De Re ATARI* is Latin for "All About ATARI."

APX Product Catalog
winter 1982-83 edition

$2.00 (APX-90009 Rev. A)

This 88-page, four-color catalog contains sample screens, full descriptions, and review comments for 148 programs and condensed descriptions for 11 other programs. This is the base issue for 1983.

APX Product Catalog
spring 1983 edition

$1.00 (APX-90009 Rev. B)

This issue contains sample screens, full descriptions, and review comments for programs new to the spring edition, and condensed descriptions for all other APX programs.

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(controller plug)

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This connector is suitable for the front joystick ports of the ATARI 400/800 Computers. Because you can program these ports for input or output, they're perfect for many specialized interfacing applications. These 9-pin, female connectors have solder-on, gold-plated contacts in a Nylon insulator. To allow the connector to mate more securely with the computer's port, you may need to file the plastic shell slightly.

5-PIN DIN CONNECTOR

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You can use this connector with the ATARI 800 Computer's video plug to connect your computer to video monitors, or to run the sound through a stereo system.

13-PIN I/O PLUG

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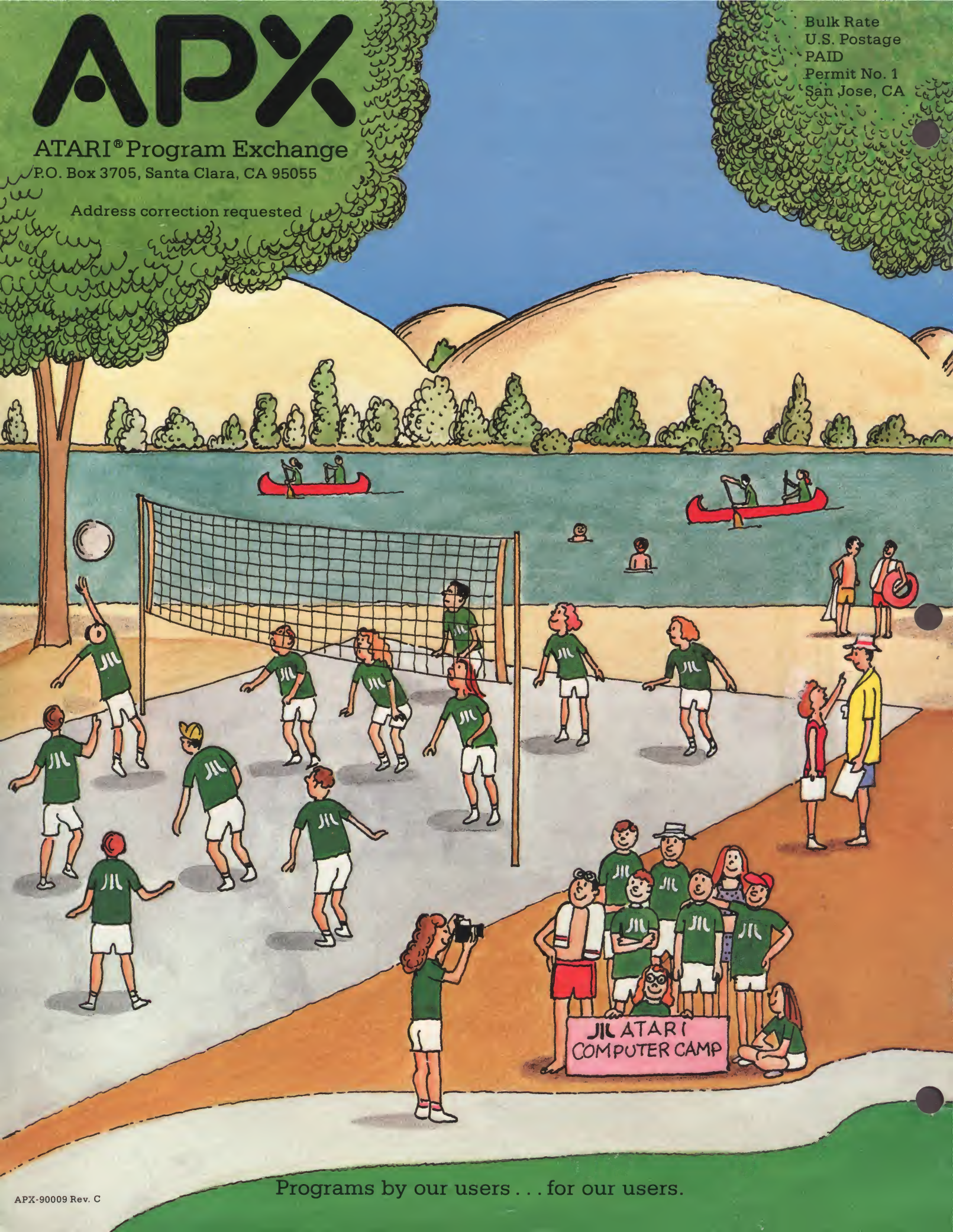
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