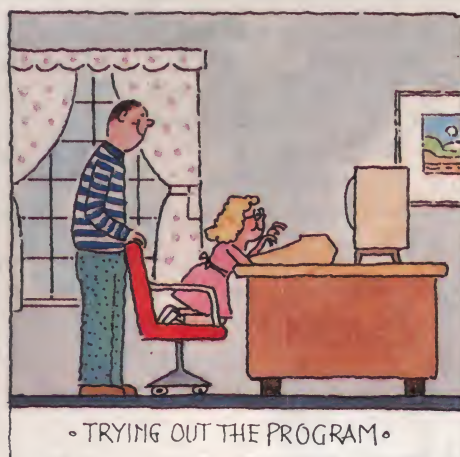
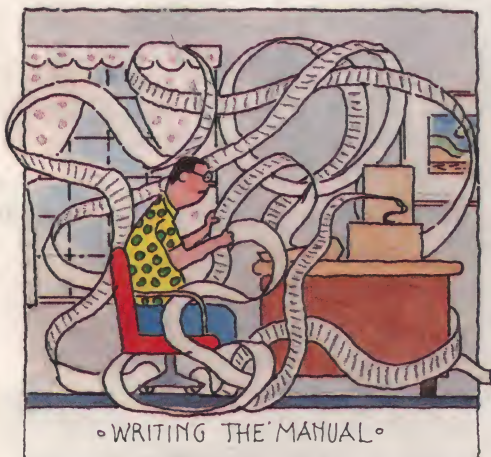
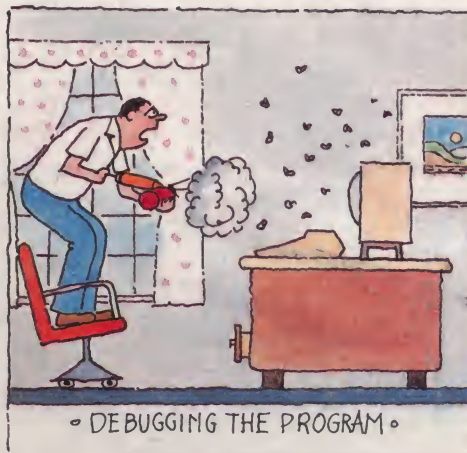




# ATARI® PROGRAM EXCHANGE

Software Catalog Spring Edition — 1982

PRICE \$1.00



**Inside: \$25,000 Grand Prize  
Winning Program**



User-Written Software for ATARI Home Computer Systems



# Contents

## Personal Finance & Record Keeping

Bowler's Database 13  
Data Management System 12  
Family Budget 11  
Family Cash Flow 11  
Financial Asset Management System 10  
Newspaper Route Management Program 13  
The Computerized Card File 14  
Weekly Planner 12

## Business & Professional Applications

Decision Maker 17  
Diskette Mailing List 15  
Enhancements to Graph It\* 17  
Hydraulic Program (HYSYS) 18  
Isopleth Map-Making Package 18  
RPN Calculator Simulator 16  
Text Formatter (FORMS) 16

## Personal Interest & Development

Advanced MusicSystem 21  
Banner Generator 22  
Blackjack Tutor 21  
Keyboard Organ 20  
Morse Code Tutor 22  
Personal Fitness Program\* 23  
Player Piano 20  
Sketchpad 19

## Education

Atlas of Canada 31  
Cubbyholes 26  
Hickory Dickory 28  
Lemonade 32  
Letterman 25  
Mapware 30  
Mathematic-Tac-Toe 27  
Mugwump 32  
Musical Computer — The Music Tutor 28  
My First Alphabet 24  
Number Blast 26  
Presidents of the United States 29  
Quiz Master 31  
Starware 30  
Stereo 3-D Graphics Package 29  
Video Math Flashcards 27  
Wordmaker 25

## Entertainment

Alien Egg 47  
Anthill 44  
Attank! 41  
Avalanche\* 48  
Babel 40  
Blackjack Casino 39  
Block Buster 33  
Block 'Em 38  
Bumper Pool 42  
Castle 46  
Centurion 49  
Chinese Puzzle 47  
CodeCracker 42  
Comedy Diskette 51  
Dice Poker 45  
Dog Daze 35  
Domination 36  
Downhill 45  
Eastern Front (1941) 34  
Graphics/Sound Demonstration 43  
Lookahead 44  
Memory Match 40  
Minotaur 49  
Outlaw\*/Howitzer 43  
Preschool Games 51  
Pro Bowling 41  
Reversi II 37  
747 Landing Simulator 36  
Sleazy Adventure 47  
Solitaire 39  
Source Code for Eastern Front (1941) 35  
Space Chase 38  
Space Trek 50  
Sultan's Palace 47  
Tact Trek 50  
Terry 37  
Wizard's Gold 46  
Wizard's Revenge 48

## System Software

ATARI Pascal Language System 54  
ATARI Program-Text Editor\* 55  
BASIC Cross-Reference Utility (XREF) 57  
BASIC Program Compressor (MASHER) 57  
BASIC Renumber Utility (RENUM) 66  
BASIC Utility Diskette 56  
BLIS 63  
Chameleon CRT Terminal Emulator 52  
Developer's Diskette 65  
Disk Fixer (FIX) 59  
Diskette Librarian 62

Dsembler 61  
Extended fig-FORTH 53  
Extended WSN 59  
GTIA Demonstration Diskette 64  
Insomnia 60  
Instedit 58  
Keypad Controller 64  
Load 'n Go 63  
Screen Dump Utility 66  
Sound Editor 60  
Speed-O-Disk 65  
Supersort 61  
T: A Text Display Device 62  
Ultimate Renumber Utility 56  
Variable Changer 58  
Word Processing Diskette 56

## Publications

De Re ATARI 67

## Hardware

DE-9S controller plug 68  
5-pin DIN connector 68  
13-pin I/O plug 68  
13-pin I/O socket 68  
DA-15P 850 printer plug 68  
DE-9P 850 serial plug 68

\*Indicates trademark of Atari, Inc.



**What is APX?** Atari, Inc., created the ATARI Program Exchange (APX) to distribute user-written software for ATARI Home Computers. Our goal is to increase the usefulness of ATARI Computers by building a library of high-quality, imaginative software appealing to users of various ages and with differing needs and interests.

We offer this software quickly and inexpensively by using simple packaging, relying on user instructions written by the software author to APX standards, and foregoing follow-up support. In many cases, the program author provides follow-up support; the descriptions indicate when an author supports a program. The program descriptions include both a program's strengths and its limitations, so you know what to expect. APX also carries a small amount of hard-to-find hardware for advanced hobbyists.

**The APX catalog.** Our quarterly catalog lists the software and hardware currently available through APX. You'll automatically receive future issues of this catalog if you've sent in your warranty card for your ATARI Home Computer. All the items in the catalog are available by mail or by toll-free phone order. In addition, many ATARI Computer retailers carry APX software. Before ordering, please read all the ordering information elsewhere in this catalog.

**Program descriptions.** The descriptions and review comments reflect the programs as of the date the catalog went to press. In some cases, program authors have improved their software so that the product shipped differs from that described. However, purchasers can be assured that the computer memory requirement never increases (although it may decrease) and that such changes only enhance the products.

**Symbols used in program descriptions.** A "NEW" symbol appears next to the title of programs new to this issue. Prize-winning programs display a ribbon showing the prize won and the contest quarter. The "Premium — ATARI Staff" ribbon identifies exceptional programs written by ATARI staff members, who aren't eligible for the contests.

**How to submit software to APX.** We'd like the opportunity to look at well-written software you've created for ATARI Home Computers. We'll send you a quarterly payment for programs accepted by APX. To request the APX Program Submission Handbook, call our toll-free number, 800/538-1862 (or 800/672-1850 for calls within California).

**Trademarks of Atari.** ATARI® is a registered trademark of Atari, Inc. The following are trademarks of Atari, Inc.

ATARI 400™ Home Computer  
ATARI 800™ Home Computer  
ATARI 410™ Program Recorder  
ATARI 810™ Disk Drive  
ATARI 820™ 40-Column Printer  
ATARI 822™ Thermal Printer  
ATARI 825™ 80-Column Printer  
ATARI 830™ Acoustic Modem  
ATARI 850™ Interface Module

**Manager:** Dale Yocum

**Editor:** Ann Kelcy

**Technical Writer:** Diane Tucker

**Designer:** Jim M'Guinness

**Sales:** Teresa Lorenzen

© 1982 Atari, Inc. All Rights Reserved

Published by the ATARI Program Exchange  
Atari, Inc.

P. O. Box 427

155 Moffett Park Drive, B-1  
Sunnyvale, CA 94086





**O**ur first issue of 1982 spotlights several APX program authors. In addition to our latest quarterly contest winners, this issue features the winners of the first annual ATARI Star Awards of Merit and the Grand Prize winner. These latter winners were honored at an awards banquet in January for their outstanding contributions to APX.

Also of special interest to programmers in this issue is the availability of ATARI Pascal, a structured programming language especially suited to developing and maintaining software. And *De Re ATARI*, the long-awaited reference explaining the internal structure of the ATARI 400/800 Home Computer, is now available through APX. Our new Publications section contains more information about this important work. We're also offering our first program written in Microsoft BASIC. INSTEDIT, a prize-winning character set editor, is now available in both ATARI BASIC and Microsoft BASIC.

Of interest to everyone is the improvement we've made to our program descriptions. Most now contain a sample display screen! Quite literally, you'll get a better picture of what a program is all about by reading the description and studying the sample screen.

## **ATARI Stars awarded to four APX authors**

The dedication of many APX program authors to learning about the ATARI Home Computer's many features and using these features imaginatively has resulted in some outstanding programs deserving special recognition. We temporarily rescued four such authors from the bitter cold spell that swept the nation in mid-January by flying them to San Francisco for a weekend of festivities. We gathered on a brisk, sunny Saturday afternoon at Maxwell's Plum, a new restaurant with superb views of the bay, to honor our first annual ATARI Star Award winners.

The winners differ from each other in many ways. For example, they come from different parts of the country. Two are from the east, one is from the midwest, and one is from the west. Ronald and Lynn Marcuse, authors of *three* award-winning data base programs, DATA MANAGEMENT SYSTEM, DISKETTE LIBRARIAN, and WEEKLY PLANNER, are from Freehold, New Jersey. Fernando Herrera, author of the award-winning preschool program, MY FIRST ALPHABET, is from Elmhurst, New York. Sheldon Leemon, author of the award-winning character set editor, INSTEDIT, is from Oak Park, Michigan, and Greg Christensen, author of the award-winning action game, CAVERNS OF MARS, is from Anaheim, California.

Our winners have different personalities. They range from outgoing and talkative to quiet and very modest. They're male and female; teenaged and older; students and professionals; single and married with families; computer professionals with many years of experience to (what is more often the case) hobbyists with only one or two years of experience.

But these winners also share several traits, traits that produce winning programs. What are these common characteristics? For one thing, all our program authors tend to throw themselves into whatever they do. They've usually been deeply involved in other hobbies prior to acquiring their computers. Since owning their computers, they've dedicated themselves to both learning about the capabilities of their systems and exploring how they can use computers in every aspect of their lives.

That Ron and Lynn Marcuse would purchase a home computer is easily understood. Ron is a long-time computer professional who had grown away from programming in his position as data processing manager for the New York City Board of Education. Lynn is a senior at Brookdale College majoring in computer science. Both wanted to do more programming; buying their own computer system made a lot of sense. They've written more than 400 programs so far! Ron and Lynn also prove that the computer family-of-the-future is already here. They own two ATARI Home Computer Systems, one for themselves and one for their two children, who complained about not having enough time on their parents' system.

That Greg Christensen bought his own computer is also understandable. This 17-year-old Fullerton College freshman has pursued an interest in electronics since he was eight. After building such equipment as sound generators, amplifiers, radio frequency modulators, and a computer from a kit, acquiring a home computer was a natural next step.

Sheldon Leemon, on the other hand, had had no experience with computers until he bought his own system last year. As an attorney for a family mortgage business and an avid ham radio operator, Sheldon recommended that the business purchase a small computer to understand better the computer operations of agencies with whom they deal. At the same time, he decided that the ATARI Home Computer System had the best design for interfacing with his ham radio activities. However, since purchasing his ATARI Home Computer, Sheldon's ham radio activities have taken a back seat to his new love: exploring all the capabilities of his computer and spreading the word about its versatility. Described by his wife as a rather quiet man who prefers to pour over books or work machinery by





Left to right: Sheldon Leemon, Greg Christensen, Paul Cabbage (manager of product review), Diva and Fernando Herrera, and Ronald and Lynn Marcuse.



Fernando Herrera, \$25,000 grand prize winner, with his winning program, My First Alphabet.

himself, Sheldon has helped form one of the largest and fastest-growing ATARI Home Computer Users' Groups in the country, currently having more than 250 members. His wife no longer bothers looking over their mail — it's mostly for Sheldon from other ATARI Home Computer users (Sheldon is currently secretary of the Users' Group). Nor does she race to answer the telephone. More times than not, it's another user with a question for Sheldon. In addition, he teaches programming both through the Users' Group and at a unique toy store whose owners believe everyone in a family should use home computers. Sheldon teaches entire families in his classes at the store!

Fernando Herrera was in a similar position. Until purchasing his ATARI Home Computer two years ago, he'd had no experience with computers. However, Fernando believes home computers will profoundly influence homes and family life in the near future and he wanted to embrace the future. Like our other authors, he studied the micro-computer market extensively before deciding to buy an ATARI Home Computer and then he poured himself into exploring its features. And, also like our other authors, he was especially taken by the ATARI Computer's graphics capabilities. Today, the whole family uses the computer. His wife Diva tracks the family's finances with it. Twelve-year-old

Vivian works on her math and other subjects using programs written by her father. Four-year-old Steve practices his letters and numbers and entertains himself with educational games written by Fernando. Whenever Fernando faces a problem, he automatically looks to his computer for a possible solution — and often it provides the answer!

What started for these people as curiosity about a machine heretofore used primarily outside the home evolved into extensive exploration and then into a deep commitment to their new interest. Curiosity, hard work, and persistence have paid off for these authors. In fact, Atari is acquiring some of their programs for incorporation into its standard product line, which means even greater exposure for these authors and their programs. CAVERNS OF MARS is the first APX program to complete this transition. Because it's scheduled to be an ATARI product as we go to press, it's no longer available through APX.

Many other APX program authors are also reaping the rewards of hard work. They're earning income from their programs and they're gaining national recognition.

Ron Marcuse probably summed up all our winners' thoughts when he said, "San Francisco is a nice place. I hope I'm back here next year!" We'd like to see these winners again. We'd also like to see some newcomers. Will you be among them?

## Fernando Herrera becomes our first annual \$25,000 Grand Prize winner

Acquiring an ATARI Home Computer has changed not only Fernando Herrera's home life, but also his profession. His friends thought he was crazy when he talked about buying a microcomputer. "Why buy a home computer when you can buy a good stereo system for the same amount of money?" they asked. But Fernando had a vision they lacked. Six months after buying his ATARI Home Computer System, he had acquired enough programming knowledge to sell his first program (which he wrote for another system). The income he earned from that program more than paid for the entire system, which consisted of an ATARI 800 Home Computer with 40K of RAM, an ATARI 810 Disk Drive, and an ATARI 820 40-Column Printer. Then Fernando won first prize in the Education category of the 1981 Winter quarter APX contest for his enchanting pre-school program, MY FIRST ALPHABET. And now this new programmer from Elmhurst, New York, has become the first recipient of our annual \$25,000 grand prize.





The story behind MY FIRST ALPHABET began about two years ago. Fernando wanted to apply his fledgling knowledge of ATARI BASIC to something constructive. He also needed to test his two-year-old son Steve's vision. Steve had been born with severe cataracts in both eyes. Fernando worried that Steve's intellectual development would suffer if he grew up in a world he couldn't see, and Fernando suspected his son could see more than the physicians believed he could without using special lenses. Fernando had only recently purchased his ATARI Home Computer, but he concluded it was "the perfect tool" by which to test the true extent of Steve's vision. So he wrote a program that displayed the letter "E" in different sizes on the TV screen. The program confirmed his suspicion about Steve's vision, and the physician was indeed surprised at Steve's ability to see small "E's" without special lenses.

But something else also occurred with Fernando's letter program. Young Steve was so attracted to his father's computer that he played for hours just with the "E." Fernando then added a picture of an elephant next to the "E" for his son's amusement. Gradually, he added more letters, one at a time. While still designing his program, Fernando attended a seminar conducted by ATARI staff for software developers. The seminar was a "critical point in learning what ATARI Computers could do," he states. The lecturers "really opened my eyes to new horizons," he says. (Editor's note. The new reference work, *De Re ATARI*, available through APX,

contains much of the information discussed in these seminars.)

Fernando experimented with some of the features he'd learned about, such as player missile graphics and display list interrupts. His letter program became polished enough that he toyed with the idea of trying to sell it. He designed pictures for each letter of the alphabet, added the numbers zero through nine, and other features, and then started marketing his program as MY FIRST ALPHABET through a company he created with another programmer.

The program arrived at APX late last year. It was so graphically appealing, well-designed, and well-suited for its preschool users that it captured first place in the Education category in our winter contest. But writing an award-winning program was just the first of several changes in Fernando's life. When Fernando received news of his award, his wife took the day off from work, baked a cake, gathered family and friends, and greeted Fernando at the end of the day with a surprise party. The gesture was especially meaningful to Fernando because he had previously been in hot water more than once for neglecting his family to work with his computer. "Just wait," he asked them. "Give me time to learn." He also received numerous calls of congratulations. One call, however, was from the owners of a new computer store, Computer Concepts, in Cedarhurst, New York, asking him to be their store manager. Fernando happily accepted and is now doing what he's wanted to do all along — work with computers!





Fernando's friends have also changed over the last two years. They watch four-year-old Steve turn on the computer and disk drive, load his favorite program, use the keyboard and Joystick Controller, and type just about any printed word. Now they want home computers for their children. They think Fernando spends a lot of time teaching his son to use the computer. Fernando denies this. They also think Steve must be exceptionally bright. Fernando is justly proud of his son, but he doesn't attribute Steve's computer skill to intelligence alone. The critical factors, Fernando believes, are early exposure to computers and programs so interesting and entertaining that children don't even know they're learning; they just know they're having fun.

Being a perfectionist, Fernando continues to improve current programs. But he's also working on new educational software aimed at young children and on games for all ages. Because he subscribes to the importance of detail, he isn't rushing himself. He remains committed to learning even more about ATARI Home Computers and to applying his knowledge to improving his program designs. Only now his family fully supports his dedication; they've seen the results!

## Winter 1981 quarterly contest winners

In our winter contest we recognized some familiar names and noticed an interesting trend. Some of our program authors are starting to create program series. Three such series showed up as contest winners — a set of wonderfully entertaining number and word games for youngsters in the Education category, an astronomy program as a sequel to a map program also in the Education category, and a family budget program as a companion piece to a cash flow program in the Business and Professional category. With each contest, we're seeing more and



more creative uses of the ATARI Home Computer's special graphics and sound features, as our current crop of winning programs amply demonstrates!

First place in the CONSUMER category goes to Lee Actor, a doctoral student in music composition at the University of California, Berkeley, for a stunning musical program called ADVANCED MUSIC-SYSTEM. This former software engineer from San Jose, California, combined expertise in programming and music composition to design a program that lets you create and listen to compositions using as many as four independent voices in a 5½-octave range. A built-in synchronization function lets you record sixteen or more simultaneous voices on a four-channel tape deck. Lee wrote his program because he wanted to extend the range of musical composition accessible on his ATARI Home Computer. Not intending at the beginning to create such a comprehensive package, his program grew as he explored the capabilities of his system and the kinds of rhythmic features and range of notes he wanted to use. The result is a program making outstanding use of the ATARI Home Computer's sound channels. Second place goes to Alan Griesemer, a research psychologist, and Stephen Bradshaw, an electrical engineer, for BLOCK BUSTER, a graphically slick program for solving that colorful, infuriating cube puzzle that's all the rage right now. They wrote the program because they were interested in the graphics challenge of depicting six sides of a cube simultaneously. They were also intrigued with how to make the program easy and fun to use. Their solutions are clever, indeed. If you're hooked on playing with "the cube," you'll want to check out this program. Third place goes to Duane King of Huntsville, Alabama, for SKETCHPAD, which turns your ATARI Home Computer into a doodling pad. A senior software engineer, Duane studied the microcomputer market for three years before purchasing his ATARI Computer, which, he says, was the first to "combine all the widgets" he was looking for — that is, features like graphics and sound controlled by the hardware. Duane bought his computer intending to write and market games, but he soon realized the drawing program he wrote for his personal use was the most marketable of his programs.



A single program author captured both first and second place in the Education category. Dale Disharoon, a teacher at Manchester Elementary School in California, won first prize for WORDMAKER, a competitive word game, and second prize for CUBBYHOLES, a competitive number game. Both are intended for youngsters, but several of our adult contest judges got carried away with their Joystick Controllers when playing these games! Dale adapted these games to the computer from other educational game sources, adding his own touches to take advantage of the ATARI Home Computer's graphics features. His small school (38 students in grades kindergarten through eight) has four ATARI Home Computers in its library, and Dale's games are very popular with all grade levels. Our third place winners, Harry Koons and Art Prag, of Harbor City, California, contributed a comprehensive astronomy program called STARWARE. These two physicists won a prize in the summer contest for their equally impressive map program. Now you can view not only any point on earth from several perspectives with MAPWARE, but also all the constellations in both hemispheres and maps of the heavens visible from your home at any date and time this century with STARWARE.

In the BUSINESS & PROFESSIONAL APPLICATIONS/PERSONAL FINANCE & RECORD KEEPING category, our first place winner wrote a companion program to his first place winning program in the winter contest. Jerry Falkenhan, a manufacturing director from San Jose, California, created FAMILY BUDGET as the "forward look" complement to the "backward look" of his FAMILY CASH FLOW. FAMILY BUDGET uses the income and expense information from the FAMILY CASH FLOW program to help you set up a practical budget and evaluate your performance. John Crane, a product assurance EDP coordinator from San Jose, California, took second place for RPN CALCULATOR SIMULATOR, a program that turns your ATARI Home Computer into a calculator using Reverse Polish Notation, which is popular among engineers and other professionals. Another local program author, Clyde Spencer, of Los Altos, California, captured third place with his map program, ISOPLETH MAP-MAKING PACKAGE. As a geology professor at Foothill College in Los Altos Hills, Clyde teaches map and air-photo interpretation. He wanted to demonstrate how to use computers to contour data, and he chose the ATARI Home Computer because he thought its graphics and color capabilities would greatly enhance such maps.

In the SYSTEM SOFTWARE category, first place goes to Jubal Ragsdale, a computer department manager, and Dave Henry, a weather forecaster, both of Anchorage, Alaska, for SPEED-O-DISK, a

handy utility for verifying the speed of your ATARI 810 Disk Drive. Second place goes to 17-year-old Thomas Newton, a senior in computer science at the University of North Carolina at Wilmington, for KEYPAD CONTROLLER, a program that turns a set of ATARI Keyboard Controllers into a keypad for such activities as quick entry of data with your ATARI BASIC programs. As a bonus, this program also lets you set the speed of program listings as they display on your TV screen. We awarded only first and second place prizes in this category owing to insufficient qualifying entries.

## **Next contest deadline is April 1 (no fooling!)**

All programs received by APX between January 16 and April 1, 1982, automatically become contestants in our summer judging. First, second, and third prize winners in each of four categories receive ATARI products. The first category, Consumer, has larger prize values, reflecting our commitment to the home computer user:

### **1 Consumer (Entertainment and Personal Interest and Development) prize values\***

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

The other three categories:

### **2 Education**

### **3 Business & Professional Applications/Personal Finance & Record Keeping**

### **4 System Software**

each have prize values\* of

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

The closing date for eligibility for the 1982 grand prize — \$25,000 in cash — is October 1, 1982. To request an APX Program Submission Handbook, containing complete instructions for submitting software, call our toll-free order numbers. This contest is void where prohibited by law. Software submitted by ATARI employees or their families isn't eligible for these contests.

\*Based on manufacturer's suggested retail prices.



# Contest Rules



1. Only programs accepted by the ATARI Program Exchange 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:
  - a. Human engineering
  - b. Originality
  - c. Ease of use
  - d. Implementation
  - e. Documentation
  - f. 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.

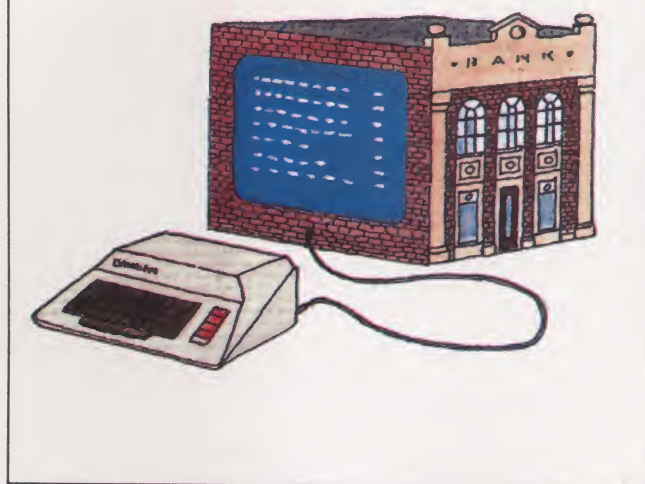
## APX software available through ATARI Home Computer retailers

Orders from ATARI Home Computer retailers continue to pour in, which means you can purchase many APX programs more quickly by visiting your local ATARI Home Computer retailer. If you're an ATARI Computer retailer who hasn't yet ordered APX software, call one of our toll-free numbers for information about retailer discounts.





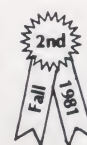
## Personal Finance & Record Keeping



## FINANCIAL ASSET MANAGEMENT SYSTEM

by Robert A. Waldman

Recommended for ages 16 and up/Written in BASIC



Are you looking for a systematic way to organize all the niggling details involved in keeping track of your financial assets? No sooner said than done! The FINANCIAL ASSET MANAGEMENT SYSTEM helps you evaluate the status of all your holdings by creating records for each asset and producing printed financial reports. Your assets can be of any type, such as stocks, bonds, real estate, collectibles, bank accounts, funds, and certificates. Using a series of menus, you can track as many as 99 different assets per file, and you can create as many files as you need. Each asset can be as large as \$10 million. The system values your portfolio and prints three kinds of reports. One kind orders all your assets in a file alphabetically and lists each asset's yield, profit, and annual payout, among other information. This report also prints sub-totals by asset type. The second kind sorts all your assets in a file into five different lists: by value, profit, payout, yield, and percent profit. The third report tabulates all your dividends and interest paid on a year-to-date (YTD) basis. And for your convenience, you can also print data input forms to record information manually until you're ready to update your computer files.

The author invites written questions and comments.

### REVIEW COMMENTS

This is a comprehensive financial record keeper. However, you must do your own analysis. The printed reports are very well designed. Clearly, a lot of work went into this program, and the results are very professional.

You need to use the manual along with the program, especially the first few times. The user manual is EXCELLENT.

### REQUIRES

ATARI BASIC Language Cartridge  
ATARI 825 80-Column Printer only

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	40K	\$29.95	APX-20042



## FAMILY CASH FLOW

by Jerry Falkenhan

Recommended for ages 18 and up/Written in BASIC



Have you ever wondered where your money is going? How about the time you could have written off more on your taxes, if only you'd had records from January to see what you had purchased? Can you remember your gas and electricity expenses for February? Perhaps you're wondering whether you're making enough each month to afford payments on a new car. With FAMILY CASH FLOW, you can answer all these questions and many more. This friendly, easy-to-use program can track as many as 125 expense entries in 13 categories and 25 income entries in 5 categories each month. It accommodates households with annual incomes and expenses up to \$999,999.99.

You select and perform activities in this automatically loaded program through a series of menus and prompts. You use one option to display an overview of monthly income, expense, and variance between the two items, along with totals for the year. You use other options to add, modify, or delete expense and income entries (entries can be up to 15 characters long) in any budget category for any month. The program comes with suggested budget categories for both income and expenses. However, you can change these categories to meet your own needs. Categories can be up to 15 characters long.

You can display on your TV screen or print two kinds of reports. Yearly and monthly summary reports show total income or expense by budget category. Monthly detail reports list the individual entries for each budget category under either income or expense.

The author invites written questions and comments.

### REVIEW COMMENTS

This program is easy to understand. The error checking and human engineering are very good. The program has many printing options, making it especially useful.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### OPTIONAL

ATARI printer or equivalent printer

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	\$17.95	APX-20080

## FAMILY BUDGET

by Jerry Falkenhan

Recommended for ages 17 and up/Written in BASIC



Did this winter's utility bills send your finances into a tailspin? If so, it might be time for FAMILY BUDGET, a program that uses income and expense information from FAMILY CASH FLOW to help you set up a design for practical financial planning.

This automatically loaded program uses a series of menus as a guide. From the main menu, you can review already established budgets, change entries, print a budget, or set up a budget for future use. Each of these options leads you to an in-depth analysis of your month-by-month income and expenditures. For example, if you select the Review Budgets option, you may see yearly or monthly displays of one or all of your entries. You review, among others, budgeted expense vs. actual expense in any or all months. You can make changes in budgeted amounts and record them on your diskette. As in FAMILY CASH FLOW, FAMILY BUDGET lets you enter income and expense budget amounts totaling \$999,999.99. FAMILY BUDGET uses your category names already established by FAMILY CASH FLOW.

After you enter at least two months of information, you're ready to set up a budget. You fill in budget data using your actual expenses as a guide. A built-in averaging function provides information for months with no available data. FAMILY BUDGET then displays a month-by-month and category-by-category projection with a prompt asking if the information is correct. You check your figures and correct it if necessary.

FAMILY BUDGET provides a practical means for arranging your finances. You may review and revise your set of budgets at any time. Maybe your income tripled last year, requiring a change in investments!

The author invites written questions and comments.

### REVIEW COMMENTS

FAMILY BUDGET is an excellent complement to FAMILY CASH FLOW. The screen displays seen during program loading are outstanding examples of "user friendliness" in a consumer-oriented program.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
FAMILY CASH FLOW (APX-20080)

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	\$17.95	APX-20108



## DATA MANAGEMENT SYSTEM

by Ronald & Lynn Marcuse

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



Here's a data management system ideally suited for short records, such as record, tape, and book catalogs; telephone and address directories; and inventories. Menus and prompts guide you through all input activity. First, you define the characteristics of your file. You enter the file name, the number of fields (up to 8), the field headings (up to 11 characters), maximum field value (up to 30 characters), and the editing desired on a field's value (none, numeric, date, or dollar edits). You can store records as large as 140 characters. From then on, you can add, update, and remove records. You can search your file on any field using whole or partial search keys. Valid search terms are less than or equal to, equal to, greater than or equal to, and range. You can display your search results on the video screen or print them on your printer (up to 130 characters), specifying either complete or partial records. Finally, you can sort your file on any field, specifying either ascending or descending ASCII values for characters in that field.

The authors invite questions and comments by telephone.

### REVIEW COMMENTS

For a small data management system, this program is well designed and easy to use. Files remain on disk (except during sorts), making possible a fairly large base. The assembly language sort is fast. You can search on only one key at a time.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### OPTIONAL

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

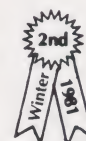
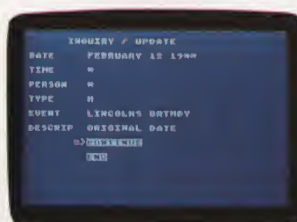
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	\$17.95	APX-20059

## WEEKLY PLANNER

by Ronald and Lynn Marcuse

Recommended for teenagers-adults/Written in BASIC and machine language



Your accountant wasn't too thrilled when you showed up at 2 p.m. for your 1 p.m. conference yesterday (at least you got the day right). You need help! With WEEKLY PLANNER you can store important dates, appointments, and other time-related events for any period between 1981 and 1999.

For each event, you create a record containing information such as the year, month, time, person, and event. Many people can store their records in one file, yet print calendars and appointment listings specific to one person. For recurring events, such as monthly mortgage payments and holidays, you can use the "wild card" feature to enter your information once and have the system automatically record the event for the appropriate days, months, person, and so on. You can locate records by year, month, day, time, or person. For example, you can find all the records for December for your son. You can then display abbreviated versions of as many as 20 records at a time or complete records, one at a time. You can also print your results as appointment listings (three days per page) or as a monthly calendar. You can enter as many events per day as you wish and display them on your TV screen; however, the program prints only the first four events per day on the formatted calendar. You can revise, add, and remove records as needed. How many records you can store depends on how much free memory your system has. A system with 32K of RAM can store 420 records; one with 48K of RAM can handle 575 records.

The authors invite questions and comments by mail and telephone.

### REVIEW COMMENTS

The human engineering in this program is excellent. The wild card for searches is very powerful.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### OPTIONAL

ATARI 825 80-Column Printer or equivalent printer

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	\$17.95	APX-20079



## BOWLER'S DATABASE

by Jerry White

Recommended for bowlers/Written in BASIC



BOWLER'S DATABASE is a very friendly, easy-to-use program for keeping track of your bowling scores throughout the season. You can create as many files as you need to accommodate each bowler in your family or each member of your league. A file can hold scores for 99 (or more) weeks. In this automatically loaded program, you enter your weekly scores for your first, second, and third games. You can correct any errors later on, should you need to, and you can enter scores for more than one week at a time. You save your files on either cassette or diskette. To see how you're doing, you request summary and detailed reports, which automatically display on your TV screen but which you can also print, if you like. The summary report contains your highest, lowest, and average scores bowled in the first, second, and third games. It also shows your highest, lowest, and average three-game series and your overall game average. The detailed report lists all your game and individual series totals by week.

BOWLER'S DATABASE gives you permanent, detailed records of your bowling performance. It makes comparisons from one season to the next, or from one league to another, a simple task!

The author invites written questions and comments.

### REVIEW COMMENTS

This program's human engineering is excellent. The opening is entertaining.

The calculations are simple, but the program is useful for those tracking their scores over an extended period of time.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### OPTIONAL

ATARI printer or equivalent printer

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$14.95	APX-10091
Diskette (810)	24K	\$14.95	APX-20091

## NEWSPAPER ROUTE MANAGEMENT PROGRAM

by John R. Powers, III

Recommended for preteenagers-adults/Written in BASIC



This program can help you manage a newspaper route by simplifying your record-keeping chores and helping plan your route. It supports daily or Sunday routes of as many as 100 subscriptions. You can enter, update, and delete customers' addresses and class of service to reflect subscription changes. And you can locate your customers on a computer-displayed map to help you plan your route. You can create and display a variety of customer lists alphabetized by street address. If you have a printer attached, you can also print this list, as well as print payment collection lists and customer receipts.

### REVIEW COMMENTS

This program requires knowledge of BASIC. You'll need to modify the BASIC code to tailor such elements as street names and map coordinates to your route. A preteenage user might need an adult's help with this initial program coding. With this done, the program is easy to use, one reason being its multilevel menu approach.

Program limitations are four-digit addresses, 100 customer records, and 12 street names.

To make full use of this program, you need a printer.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
ATARI Joystick Controller

### OPTIONAL

ATARI 825 80-Column Printer or equivalent printer

### ORDER INFORMATION

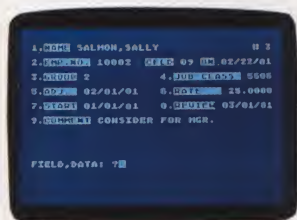
Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	40K	\$17.95	APX-20013



## THE COMPUTERIZED CARD FILE

by John R. Powers, III

*Recommended for teenagers-adults/Written in BASIC*



This is a very basic system for storing, updating, and retrieving information organized like index cards. You customize the program by modifying BASIC statements that define the data fields in your cards and create a display format and headings for these cards. The program can handle any card size, number of fields, and field arrangement. It's also flexible as to the size and location of a card's access key and you can search with partial keys. The binary search used to store and retrieve cards results in very fast response time. You use a menu to select these functions:

FETCH DATA (to load stored data file into RAM)

SAVE DATA (to store data file on diskette)

CREATE RECORDS (to enter new cards)

DELETE RECORDS (to remove stored cards)

EDIT RECORDS (to update fields in stored cards)

SCAN RECORDS (to page through the data file)

FILE DESCRIPTION (to see the file's properties)

### REVIEW COMMENTS

You must know enough BASIC to lay out a card's fields, a display format, and display labels via string and numeric variables, constants, and DATA statements, using the formats and formulae in the program's listing. A sample card file helps illustrate how to go about this task.

This is a very primitive card filing system. For example, you can search only on the record's key, which you must define before entering any data, and you can update only one card at a time.

This program requires all cards to be in RAM at once.

The user manual is VERY GOOD.

---

### REQUIRES

ATARI BASIC Language Cartridge

---

### OPTIONAL

ATARI printer or equivalent printer

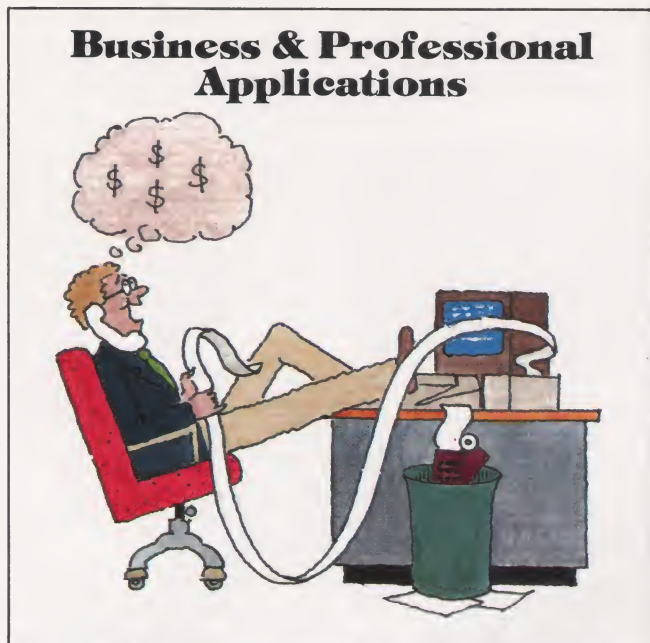
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	40K	\$12.95	APX-20014

## Personal Finance & Record Keeping



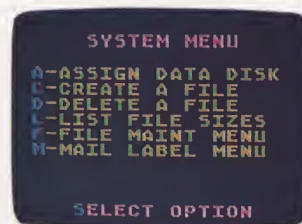
## Business & Professional Applications



## DISKETTE MAILING LIST

by William Bartlett

Recommended for ages 16 and up/Written in BASIC and machine language



Here's a mailing list program that can handle junior's kindergarten class list, mom's client list, and dad's golf club membership list. And this program can accommodate their growing needs. The number of records a file can contain is limited only by available diskette space, not by computer memory, and you can store many different files on one diskette. DISKETTE MAILING LIST can handle very large records having as many as 127 units of information (called "fields"), with each unit as large as 120 characters.

You select program functions from menus. First you define the kinds of information you want to include in the records for a file, and then you add the records themselves. You can revise, add, and remove records as needed. You can sort and re-sort your records in a file by any combination of fields with a total length of up to 185 characters. And you can print some or all of your sorted records according to your specifications for which fields to print and their order. Each record prints on one line, which can be as wide as 132 columns. You can also create custom-tailored mailing labels accommodating single and multilabel forms. Labels can contain information from records and text you specify when you request the labels. How about adding seasonal messages to your labels? Users of the ATARI Mailing List (CX4104) can easily convert their cassette or diskette records with a transfer program included in DISKETTE MAILING LIST.

The author invites questions and comments by telephone.

### REVIEW COMMENTS

The option of using as many as 127 fields extends this program beyond printing labels. You can use it for Christmas records, club memberships, and so on.

You need a printer to use DISKETTE MAILING LIST fully.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### OPTIONAL

ATARI 825 80-Column Printer or equivalent

### ORDER INFORMATION

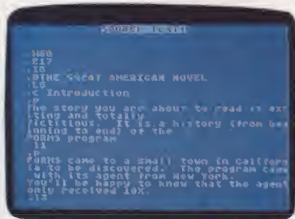
Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	16K	\$17.95	APX-20112



## TEXT FORMATTER (FORMS)

By Dale Yocum

Recommended for teenagers-adults, depending on text editor used



How often have you typed a report or letter and then wished you'd chosen a different layout? When were you last satisfied with your first draft? If you're still using a typewriter, revising your document means retyping your text. But with FORMS and a text editor you can change line spacing, line length, left-hand margin, paragraph indentation, and more without rekeying your text. You set up the format by entering simple codes along with your text. For example, you enter ".C" before text you want to center. You use a text editor to type in your FORMS codes and text and to store your data file. You can use almost any editor that produces a text file on cassette or diskette, with or without line numbers, for example, the ATARI PROGRAM-TEXT EDITOR\* (APX-20075) or the ATARI Assembler Editor Cartridge (CXL4003). When you're ready to print your text, you run the FORMS program, which asks whether you want to print your entire document (data file) or only selected pages — a convenience when you revise only one section or a few pages of a large document.

### REVIEW COMMENTS

Anyone familiar with DEC's formatter, RUNOFF, or the University of Waterloo's formatter, SCRIPT, can easily master FORMS. Most APX documentation is formatted with FORMS.

Users accustomed to text formatters on larger systems won't be able to get as many special effects with FORMS. For example, FORMS doesn't right justify or easily create columnar text, and it has no hyphenation, indexing, or footnote capability. When used with the proportional character set, it produces a ragged right margin and columns misalign.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
A compatible text editor  
ATARI printer or equivalent printer

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10002
Diskette (810)	24K	\$17.95	APX-20002

\*ATARI PROGRAM-TEXT EDITOR is a trademark of Atari, Inc.

## Business & Professional Applications

## RPN CALCULATOR SIMULATOR

by John Crane

Recommended for ages 12 and up/Written in BASIC



Your kid has made off with your Hewlett-Packard calculator to get through her trig test. You're going through RPN withdrawal! The RPN CALCULATOR SIMULATOR can turn your ATARI Home Computer into an RPN calculator, so you can perform simple or complex mathematical operations without having to write a BASIC program.

Reverse Polish Notation (RPN) is a method for doing mathematical operations based on a stack organization. For example, to add 4 and 5 on an RPN calculator, you press the 4 key, the ENTER key, and the 5 key. Then you indicate the kind of operation you want by pressing the ADD key. Many people tend to prefer this approach over that of using parentheses for doing complex calculations.

Using RPN CALCULATOR is easy. You enter the value or values you want to work with and the command for the operation you want to perform. The results display in the appropriate stack and memory registers. The program's display screen contains four areas of information: (1) the stack of five registers; (2) the twenty memory registers; (3) command syntax reminders; and (4) the value and command input area. You can use RPN CALCULATOR to perform functions using only one value (for example, sine, cosine, and logarithms) and for those requiring two values (for example, addition and subtraction). You can obtain measurements in either radians or degrees. RPN CALCULATOR supports four kinds of calculator functions: (1) system commands, such as clearing registers, and printing register contents on the system printer; (2) stack operations such as rolling the stack up or down, and swapping the contents of any two registers; (3) mathematical functions such as arithmetic operations, logarithms, square roots, and trigonometric functions; and (4) some statistical operations, including arithmetic means and standard deviations.

The author invites written questions and comments.

### REVIEW COMMENTS

The statistical capabilities are very useful. Programmability would be a welcome feature.

The user manual is GOOD for explaining how to operate the program. However, it doesn't discuss the advantages of RPN.

### REQUIRES

ATARI BASIC Language Cartridge

### OPTIONAL

ATARI printer or equivalent printer

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10105
Diskette (810)	24K	\$17.95	APX-20105



## by James L. Bruun

EXPENSE	TELEVISION	COSTS
ROOM	VIDEO	20
FOOD	COST	50
TRANSPORTATION		20
		70

How compare the relative weights of each choice for each attribute.  
Higher numbers mean more desirable.  
type integers from 00 to 99.



The author invites written questions and comments.

This program is most useful for complex decisions. You must understand well the factors involved in choosing. The menus are clear and easy to use.

You can't edit data you've already entered.

The user manual is VERY GOOD.

## ATARI BASIC Language Cartridge

Media	RAM	Price	Order No.
Cassette (410)	8K	\$14.95	APX-10044
Diskette (810)	16K	\$14.95	APX-20044

## by Howard D. Siebenrock

Incorporating these features into GRAPH IT is simple. You merge programs from ENHANCEMENTS with the cassette GRAPH IT programs and then save the merged programs. From then on, you use these enhanced GRAPH IT programs as you would the original versions, except that you now have additional features readily available.

The author invites written questions and comments.

The menus are similar to those used in GRAPH IT.

The saved plots load quickly.

The programs have only marginal error trapping.

The user manual is VERY GOOD.

ATARI BASIC Language Cartridge  
ATARI 410 Program Recorder  
GRAPH IT (CX4109)

## One ATARI Joystick Controller

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	\$12.95	APX-20074

\*Indicates trademark of Atari, Inc.



## ISOPLETH MAP-MAKING PACKAGE

by Clyde Spencer

Recommended for teenagers and up/Written in BASIC



Here's a computer mapping package that creates isopleth maps without the tedious and often subjective hand-contouring usually required. An "isopleth" is a line drawn on a graph or a map connecting all points of equal value. Topographic contour maps are one example of this kind of map. Isopleth maps are useful for grouping randomly sampled data representing a continuously varying property, such as elevation or temperature, within an area.

ISOPLETH MAP-MAKING comprises three programs in menu format. With these programs you can create simple isopleth maps from randomly spaced sample points. You can enter as many as 99 X,Y,Z sets of coordinates and produce a 40x20 printer listing and/or a ten-color annotated screen display. The printer listing uses values from one to nine. Since the program automatically creates nine ranges of values, the contour interval is one-ninth the range of Z-values. Because the main program can take as long as an hour to run, the package includes a plotting program to replot previously generated data files. The package also contains some colorful sample map displays.

### REVIEW COMMENTS

The isopleth plotting part of the package takes between 45 minutes and an hour to complete, so you might as well fix yourself a snack and settle down with the latest issue of *THE ATARI CONNECTION*™.

The color plotting part of the package looks good. The sample data provided nicely demonstrates the program's capabilities.

The user manual is GOOD.

---

### REQUIRES

ATARI BASIC Language Cartridge

---

### OPTIONAL

ATARI printer or equivalent printer

---

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	\$17.95	APX-20103

## HYDRAULIC PROGRAM (HYSYS)

by William L. Rice

Recommended for people involved with hydraulics/Written in BASIC



Your racing team wants to speed up tire changes in the pits. Manually jacking up each side of the car currently takes about 3 seconds. You suggest a little DC-powered hydraulic unit might be the answer. You happen to have a unit in your lowrider car you'll remove for team spirit. The unit puts out 4.5 gallons per minute at 2500 pounds per square inch. You also have a 1.5-inch diameter cylinder to go with it. Not having the least idea whether this will raise the car at all, much less do so faster, you tell everyone to take a lunch break. Now get out your ATARI Computer and use HYSYS to find the answer!

Containing 14 system calculations, HYSIS has two menus, one for hydraulic cylinders and one for motors and pumps. It also displays a printable system tally sheet for each menu's parameters. You can display the tally sheet at any time, change one of the parameters, and redisplay the tally sheet with all selected parameters updated to reflect the new input. You can also erase the tally sheet and start over. Intended for people involved in designing hydraulic systems, HYSYS quickly solves all the time-consuming calculations normally needed to size hydraulic systems and components. In fact, the program lessens the technical knowledge needed to design a hydraulic system. With the data the program calculates for you, you can often simply specify the support equipment meeting those specifications. (P.S. Your little power unit will save both time and effort. The pit team was mighty impressed!)

The author invites written questions and comments.

### REVIEW COMMENTS

This program is useful only for those already having some knowledge of hydraulics. The automatic updating of the tally sheet is very helpful. You can change one parameter and immediately see the effect on the rest of the system.

The user manual is GOOD.

---

### REQUIRES

ATARI BASIC Language Cartridge

---

### OPTIONAL

ATARI printer or equivalent printer

---

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	\$17.95	APX-20066



## Personal Interest & Development



### SKETCHPAD

by Duane L. King

*Recommended for ages 12 and up/Written in BASIC and machine language*



Remember the doodles you drew around the edges of your lecture and meeting notes? And what about those you sheepishly left on restaurant tablecloths? Now you can doodle on your computer! With SKETCHPAD you can draw designs until you run out of inspiration, and then store them on cassette or diskette for later work.

You create designs by using a Joystick Controller to position a cursor in the drawing area of the display. Then you type one- and two-letter commands in a command window. For example, you type a "B" in the command window to draw a box. Then, to indicate the box's lower left-hand and upper right-hand corners, you position the cursor in the appropriate locations and press the red trigger button. Viola! SKETCHPAD draws a solid box!

The program has 23 commands for drawing, coloring, and merging designs. You can draw points, lines, boxes, circles, lines radiating from a common point, and solid areas. You can create mirror images of designs in several ways — from left half to right half, upper half to lower half, or within the drawing area's four quarters. You can change the hue and intensity of four pen colors (one background and three foreground). All the colors in ATARI BASIC's 128-color palette (16 hues and 8 luminosities) are available, but your design displays in only four colors at a time. For example, if you change a pen's color to red, then all design elements already created with that pen change to red and new elements drawn with the pen also display in red. You can copy the design elements in one area to another area, and you can merge a design on the screen with one stored on cassette or diskette. Computer doodling . . . don't settle for less!

The author invites written questions and comments.

#### REVIEW COMMENTS

Effectively translating the drawing commands of ATARI BASIC into graphical form, SKETCHPAD is easy to learn and has all the features of a good drawing tool, plus useful extras. The circles are a little irregular.

The user manual is EXCELLENT.

---

#### REQUIRES

ATARI BASIC Language Cartridge  
On ATARI Joystick Controller

---

#### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10107
Diskette (810)	24K	\$17.95	APX-20107



## PLAYER PIANO

by Jerry White

Recommended for ages 4 and up/Written in BASIC



Here's a program that turns your ATARI Home Computer into a twenty-note minipiano. Everyone can enjoy this versatile program, regardless of musical ability or training. PLAYER PIANO can also introduce young children to computer applications beyond game playing.

This automatically loaded program displays the 20 black and white piano keys, and a musical note symbol jumps across the keys as you play your tune. The computer keyboard keys corresponding to the piano keys display in the lower part of the screen. With PLAYER PIANO, you can create tunes much like tapping one out on a piano — you strike a key, the note plays, and then it's gone. Additionally, however, a series of menu options let you save your tune as you create it, modify it as desired (now or later), play all or part of it back at any time, and then store it on cassette or diskette, for recall at a later time. You can build tunes having as many as 400 notes, composed of whole, half, quarter, and eighth notes, and having a variety of tempos.

An auxiliary program lets you display on your TV screen or print a data listing of your longer, more complex songs for analysis and modification.

### REVIEW COMMENTS

PLAYER PIANO makes clever use of the ATARI computer's graphics and sound features.

You can use this program at many different levels. Very young children can pick out tunes on the keyboard, and older users can compose lengthy tunes, save them, and modify them as desired.

The user manual is VERY GOOD.

---

### REQUIRES

ATARI BASIC Language Cartridge

---

### OPTIONAL

ATARI printer or equivalent printer

---

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	24K	\$17.95	APX-10062
Diskette (810)	40K	\$17.95	APX-20062

## KEYBOARD ORGAN

by Alan Griesemer and Stephen Bradshaw

Recommended for ages 6 and up/Written in QS FORTH



What does "Z Z B B N N B V V C C X X Z" mean to you? With KEYBOARD ORGAN, it's the beginning of "Twinkle, Twinkle Little Star"! You can turn your ATARI Home Computer into a simple organ with vibrato and attack features. You play songs using the computer's keyboard as if it were an organ keyboard, except that you can play only one note at a time. You can record and play back your songs, and even play duets or rounds by recording a song and playing it back while you play along on the computer keyboard.

Two rows of piano keys display on your TV screen. The keyboard symbol you press appears at the top of each piano key and the letter of the musical note appears at the bottom. When you press a key, the piano key changes color to show you what note you're playing.

You can modify the organ sound with the vibrato and attack options. For example, selecting vibrato ON with SOFT attack produces sounds like an organ, whereas setting vibrato OFF with SOFT attack produces sounds like a calliope. You can record a song and play it back as many times as you like. You can also record a song, turn off the record option, compose other tunes, and then replay your recorded song.

The authors invite written questions and comments.

### REVIEW COMMENTS

There's no delay in this program between a key press and a sound; it's a good simulation of an organ. The graphics are nicely done.

The ability to edit or save songs on diskette or cassette is a nice feature.

The "play-along" feature is unique.

The user manual, which includes six songs, is VERY GOOD.

---

### REQUIRES

No required accessories

---

### ORDER INFORMATION

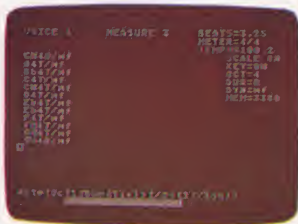
Media	RAM	Price	Order No.
Cassette (410)	24K	\$17.95	APX-10094
Diskette (810)	24K	\$17.95	APX-20094



## ADVANCED MUSICSYSTEM

by Lee Actor

Recommended for ages 11 and up/Written in BASIC and machine language



Mozart, Beethoven, and Bach never had it so good. With the ADVANCED MUSICSYSTEM, you can use your musical skills to their fullest. This program provides a complete range of possibilities, from listening to creating.

You select your activity from a menu of fourteen choices. The editing function is one of the most interesting. You enter a musical note by specifying various parameters, such as octave, duration, dynamic level, and articulation. Every time you enter a note, the program reproduces it through the television speaker and displays it on the screen, where it can be easily modified at any time. ADVANCED MUSICSYSTEM can play very complex rhythms and extremely rapid tempos. Once you create music, you can listen to as many as four independent voices in a 5 1/2-octave range. The best results are obtained by connecting your computer directly to your stereo system. Built-in synchronization functions let you construct a tape with at least eight simultaneous voices using an external tape recorder.

ADVANCED MUSICSYSTEM lets you save music on a diskette, and merge files to create very large files. Depending on your system's memory size, you can store up to 6000 notes in a file. Using the automatic play feature, you may listen to any of several demonstration pieces, such as Tchaikovsky's Overture to the Nutcracker.

The author invites questions and comments by telephone and mail.

### REVIEW COMMENTS

This is a comprehensive package for people with a good knowledge of music. The demonstrations show off the good sound quality of the ATARI Home Computer. The program has many more outstanding features than can be described in this space. Notes are entered alphanumerically rather than graphically.

The user manual is EXCELLENT. It discusses planning, entering, playing, and saving music, and how to connect your computer to your stereo system.

### REQUIRES

ATARI BASIC Language Cartridge

### OPTIONAL

Stereo cable  
Tape recorder

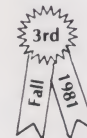
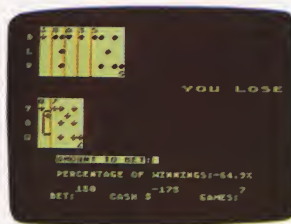
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	\$24.95	APX-20100

## BLACKJACK TUTOR

by W. H. Northrup

Recommended for adults/Written in BASIC and machine language



Here's a game with more than entertainment as its purpose. It's also a tutorial designed to increase your mastery of blackjack playing and betting strategy. The training occurs in two stages. In the first stage, you learn basic blackjack strategy so that you can maintain roughly even odds over the dealer. In the second stage, you tackle the tens count strategy, which can give you as much as a ten percent advantage over the dealer during some portions of game play.

Designed for players already familiar with the popular casino card game, BLACKJACK TUTOR is based on the mathematical probabilities of blackjack. You can choose the number of decks to play with and the level at which the dealer reshuffles the cards. You can also play with or without insurance. As the dealer, the computer follows a set of casino rules. You have the options of staying, hitting, doubling, splitting, surrendering, and asking for insurance. When you play against the computer, you can request betting and playing strategy prompts at any time and you can specify whether you want message displays when you take an incorrect action. You can also study the computer playing a tens count strategy game of blackjack against the dealer, with instructive data displays.

The author invites written questions and comments.

### REVIEW COMMENTS

This is an enjoyable way to increase your blackjack skills. You can go at your own pace. The human engineering could be better.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10057
Diskette (810)	24K	\$17.95	APX-20057



## BANNER GENERATOR

by John Daigle & Steve Bittrolff

Recommended for ages 8 and up/Written in BASIC



HAPPY ANNIVERSARY, MOM & DAD! CLEAN YOUR ROOM!! DON'T FORGET TO PICK UP BRUTUS AT THE KENNEL. WHEN AM I GONNA GET MY \$10.00? GET YOUR FREE DISKETTES HERE! How often have you wished for a dramatic way to make your point? With BANNER GENERATOR, you can turn out one-liners up to six inches high and as long as 80 characters. You can print messages in normal character intensity or extra dark (if you use an ATARI 825 80-Column Printer). You can vary both character height and character width. And you can select from three output methods — the message printed with one fill character (e.g., the character "#"), each output character printed using itself as the fill character (e.g., "A's" for the letter "A" and "R's" for the letter "R"), or a short word used as the fill character (e.g., the word "FAREWELL"). For all three methods, the message prints sideways down the paper like a ticker tape. In addition, you can reproduce banner-size ATARI graphics characters, although these characters can't be fill characters. The possibilities are endless!

### REVIEW COMMENTS

Because of letter size, this program uses lots of paper and ribbon.

These banner messages are popular with kids — even when the messages are reminders to do chores!

With a little programming, you can use BANNER GENERATOR with alternate character sets you've designed.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
ATARI printer or equivalent printer

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$12.95	APX-10040
Diskette (810)	16K	\$12.95	APX-20040

## MORSE CODE TUTOR

by Richard Watts/Macrotronics

Recommended for ages 7 and up/Written in BASIC and machine language



Here's a comprehensive and enjoyable program for learning to recognize Morse code. With MORSE CODE TUTOR, you can learn at your own pace. Once you become familiar with all the characters, you can choose from five different practice options.

Beginners will want to use the program's tutorial, which contains eleven 4-character lessons. In each lesson you can specify the character to be sent and then listen to the signal, or you can have the program send any of the lesson's characters at random. In the latter case, you then press the corresponding key on your keyboard. If you press an incorrect key, the program sends the code of the pressed key and then resends the original character, to help you learn the difference. You can also choose to have random characters sent from the current and all earlier lessons. As you become familiar with each code, you can increase the transmission speed, from 5 words per minute to as fast as 60 words per minute.

You then use the program's other practice activities. For example, you can specify the Morse character to be sent; the character displays in blue on your TV screen as it's sent and then changes to yellow, so you always know which character you're hearing. Or, you can have the program send random characters in groups of five or random words. For all these options, you can vary the speed according to your needs. Those preparing for the FCC code test for ham radio operation can listen to randomly generated ham radio callsigns (e.g. KF8WMO); each callsign displays as it's transmitted.

The author invites written questions and comments.

### REVIEW COMMENTS

Being able to vary the speed at almost any point in the program is very helpful. MORSE CODE TUTOR is a good teaching tool. It doesn't teach you how to send Morse code, only how to receive it.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10092
Diskette (810)	24K	\$17.95	APX-20092



## PERSONAL FITNESS PROGRAM\*

by David Getreu

Recommended for ages 12 and up/Written in BASIC



Have you been spending too many hours seated at your ATARI Home Computer? Are you developing hobbyist's spread? Do you wind easily when you chase after Rover to retrieve your cassettes or diskettes? Do your muscles strain when you lug your equipment to the users' group meeting? Don't despair. Without leaving your computer, you can recapture the pride and vigor that come with being in good physical condition by exercising for 15–30 minutes a day with animated model Pinky Stamina.

The eight exercises in the PERSONAL FITNESS PROGRAM may help improve your flexibility, strength, stamina, coordination, circulation, and general body tone. Taking into account age, sex, heart rate, and past exercise performance, the program tailors the exercises to each user. You can exercise when you want and at your own pace. The program contains daily and weekly progress charts.

CONSULT YOUR PHYSICIAN BEFORE USING THIS EXERCISE PROGRAM.

### REVIEW COMMENTS

The idea of exercising along with a computerized companion is still novel. Computer addicts will probably enjoy this approach. Others might miss exercising with fellow human sufferers. Pinky Stamina is a boring companion after a few sessions.

The animated model and charts make good use of the ATARI Computer's graphics features.

The user manual is VERY GOOD.

---

### REQUIRES

ATARI BASIC Language Cartridge

---

### OPTIONAL

One Paddle Controller  
One Joystick Controller

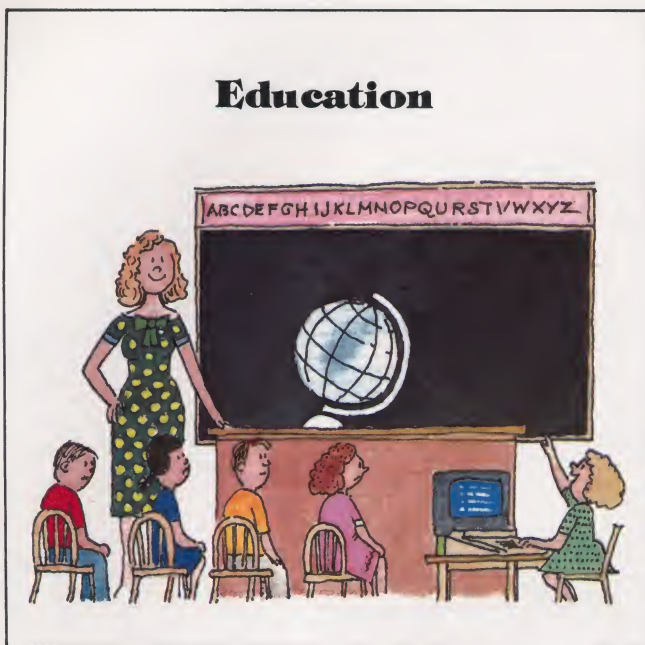
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	24K	\$17.95	APX-20033

\*PERSONAL FITNESS PROGRAM is a trademark of Atari, Inc.



## Education

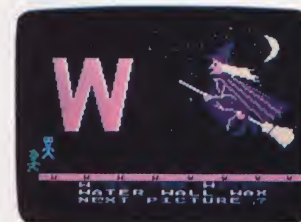


### MY FIRST ALPHABET

by Fernando Herrera



Recommended for ages 2-8 and 8-90/Written in BASIC



MY FIRST ALPHABET is an easy-to-use, unique teaching book of 36 high-resolution pictures, one for each letter and digit. At the touch of a key, a parade of artistically designed graphics form on your TV screen. Your child will soon master objects and songs, letters and numbers, and shapes and colors with this colorful and melodic program.

The program draws a picture while a little man runs across the bottom of the screen to amuse younger children. Then the letter or number corresponding to the picture displays next to the drawing. For letter drawings, the word identifying the picture displays in a text window, along with the letter in upper and lower case and other words beginning with the letter. The program has many variations. You can choose automatic displays of letters and numbers, letters only, or numbers only. For these variations, youngsters press the key matching the letter or number displayed. They have as many chances as necessary to press the right key. Other variations let you request particular letters, numbers, or pictures, or play the traditional alphabet song and display the complete alphabet. An AUTORUN variation draws pictures, letters, and numbers, and plays tunes randomly and indefinitely, a useful variation for preschoolers.

The author invites questions and comments by mail and telephone.

#### REVIEW COMMENTS

The program's human engineering and artwork are excellent. It has some of the best pictures we've seen drawn on a computer. Children will find the format very entertaining.

This program is copy-protected.

The user manual is VERY GOOD.

#### REQUIRES

ATARI BASIC Language Cartridge

#### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	24K	\$29.95	APX-20083



## by Ed Stewart and Ray Lyons

BCD FGH JKL -0 -0  
N PQ STUVWXYZ -0 -0

RE----I-

L E T T E R M A N

→



## REVIEW COMMENTS

The user manual is VERY GOOD.

### ATARI BASIC Language Cartridge

Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10096
Diskette (810)	32K	\$17.95	APX-20096

## by Dale Disharoon

WordMaker

Gloss

peal  
↑  
FLORENCE 10

PEAL  
FEET  
FEET  
FEET  
FEET  
PEAL



## REVIEW COMMENTS

The user manual is VERY GOOD.

## REQUIRES

ATARI BASIC Language Cartridge  
One or two ATARI Joystick Controllers

## OPTIONAL

ATARI printer or equivalent printer

## ORDER INFORMATION

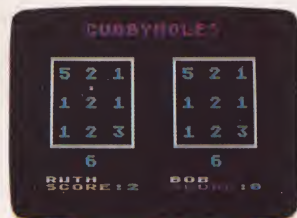
Media	RAM	Price	Order No.
Cassette (410)	32K	\$17.95	APX-10099
Diskette (810)	40K	\$17.95	APX-20099



## CUBBYHOLES

by Dale Disharoon

Recommended for ages 5-12/Written in BASIC



If you're looking for a fresh approach to teaching addition, your search is over. Youngsters will line up to play CUBBYHOLES! This one- or two-player game gives plenty of addition practice, but players will be so absorbed in wielding their Joystick Controllers and planning their strategy, they'll hardly be aware they're sharpening their addition skills.

In the two-player version, you each work on separate, but identical 3-by-3 grids of one-digit numbers. Below the grid a number between 6 and 18 displays. You can either select this number yourself or you can opt for CUBBYHOLES to choose it for you. You use a Joystick to draw boxes around sets of numbers such that each set adds up to the number displayed below the grid. You must use all the numbers in the grid, and you may enclose each number in only one box. Each grid has only one solution! Once you think you've solved the puzzle, move to the middle of the grid and press the Joystick's trigger button. If you're wrong, CUBBYHOLES tells you to try again. If you're right, you score a point and another round begins. You can play as few as two rounds or as many as twenty. In the one-player version, one grid displays and your goal is to complete every round successfully. CUBBYHOLES has more than five hundred puzzle combinations, so line up the kids for fun and competition with an educational twist.

The author invites questions and comments by mail and telephone.

### REVIEW COMMENTS

CUBBYHOLES is a charming approach to teaching simple arithmetic. The graphics, sound, and ingenuity add a new dimension to drill and practice programs.

CUBBYHOLES is a teacher's dream for increasing students' concentration, analytical abilities, and math skills — all at the same time. It's a great two-player game, but it's rather weak as a one-player game.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
One ATARI Joystick Controller per player

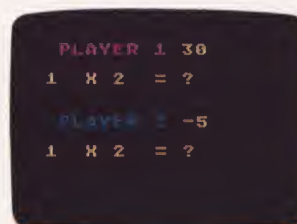
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10101
Diskette (810)	24K	\$17.95	APX-20101

## NUMBER BLAST

by Richard Wiitala

Recommended for ages 6-16/Written in Basic



Who doesn't like color, sound, and action to perk up tedious memory drills? Here's a one- or two-player number drill combining quick thinking with quick reflexes. In the two-player version of NUMBER BLAST, you practice your multiplication and addition while working your Joystick to "blast" to the correct number more quickly than your opponent. But be careful — incorrect answers cost you points. Depending on the kind of number drill chosen, either the first to score 200 points or the player with the higher score at the end of a set number of problems is the winner. In the one-player version, you can practice your Joystick techniques and response speed while blasting your way through the drills. You can select a slow, medium, or fast Joystick speed.

NUMBER BLAST offers practice in random addition problems with numbers ranging from 1 to 20; addition tables from 1 to 9 with one number picked at random; and integer addition problems with numbers ranging from -20 to 20. It also offers random multiplication problems with numbers ranging from 1 to 12; multiplication tables from 1 to 9 with one number picked at random; and integer multiplication problems with numbers ranging from -12 to 12.

The author invites written questions and comments.

### REVIEW COMMENTS

The Joystick aspect of NUMBER BLAST, which is quickly mastered, makes this number drill fun for youngsters. The program also uses color and sound to enliven the drills.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
A set of ATARI Joystick Controllers

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$12.95	APX-10097
Diskette (810)	24K	\$12.95	APX-20097



## VIDEO MATH FLASHCARDS

by Richard S. Waller

Recommended for ages 6-10/Written in BASIC



VIDEO MATH FLASHCARDS run through two-minute drills in such a pleasant way that youngsters might even do them for recreation! These drills resemble the familiar single-digit problem/answer flashcards, but this version enlivens the drills with some simple sound, color, and graphics features. It also displays a two-minute counter in the corner of the screen so the child can keep track of the time. The goal is to answer correctly as many problems as possible within the two minutes. A child can choose addition, subtraction, multiplication, or division problems or a mixture of all four types. He or she need enter only the answer, without having to press the RETURN key each time. The program displays the number of right and wrong answers as the drill progresses. The child receives a rank, such as NOVICE or MATH WIZ, at the end of the drill according to the number attempted and the number answered correctly. The program also contains a review stage, during which it redisplay any problems missed during the drill to give the child another chance to answer correctly. If he or she misses the answer, the correct answer displays as a suggestion to the child to type in and that problem occurs again later in the review. These drills are suitable for individual and group practice (children taking turns or in teams).

The author invites written questions and comments.

### REVIEW COMMENTS

These drills are elementary, but they're well done. You can't set the level within the 0-9 range of problems/answers. The approach is friendly and encouraging, rather than punitive. We especially enjoyed the review cycle. The sounds and graphics are fairly basic.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	8K	\$12.95	APX-10048
Diskette (810)	16K	\$12.95	APX-20048

## MATHEMATIC-TAC-TOE

by Nadav Caine

Recommended for ages 8-16/Written in BASIC



Here's an offbeat way for kids to practice their basic computational skills. Suitable for classroom or home use, MATHEMATIC-TAC-TOE provides addition, subtraction, multiplication, and division drills on 15 difficulty levels and 15 time-limit levels, making this program appealing to children with widely varying skill levels. The most difficult levels go beyond the point at which students normally memorize answers. The time limit ranges from 2 to 23 seconds.

After choosing the kind of math problem to practice, a difficulty level, and a time-limit level, the two players are ready to square off against each other on the standard three-by-three square, tic-tac-toe grid. A player chooses a square to fill. The computer then poses a math problem, which the player must answer within the designated time limit in order to mark his or her chosen square. The computer marks the square with the player's symbol (X or O) for a correct answer. The player forfeits the square for an incorrect answer. The game ends when one player fills a row vertically, horizontally, or diagonally, or when the players fill all nine squares but neither has completed a row (a tie).

The author invites questions and comments by telephone and mail.

### REVIEW COMMENTS

The graphics could be more interesting.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

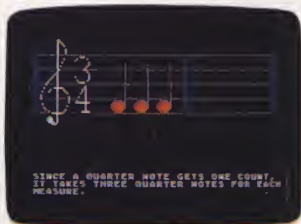
Media	RAM	Price	Order No.
Cassette (410)	16K	\$12.95	APX-10082
Diskette (810)	24K	\$12.95	APX-20082



## MUSICAL COMPUTER-THE MUSIC TUTOR

by Computer Applications Tomorrow

Recommended for ages 6 and up/Written in BASIC



MUSICAL COMPUTER-THE MUSIC TUTOR will appeal to the untapped musician in all of us. Good graphics and a catchy tune make this program an excellent educational tool for all ages. Even young children can understand the program's simple explanations.

MUSICAL COMPUTER gives you a solid overview of the mechanics of music. You quickly learn about musical symbols, treble and bass clefs, rhythm, and sharps and flats. You also learn the names of every musical note through simple phrases. For example, "face" stands for some of the notes in the treble clef. You see how musicians read music by counting notes — whole notes, half notes, quarter notes, eighth notes — and the rests that occur in between. You even have time built-in to practice, practice, practice!

The program is divided into two parts. Within each part, you choose your activity from a menu. In part one, you learn about note reading, rhythm, and treble and bass clefs. In part two, you learn about notes and rests, dynamic and tempo markings, sharps and flats, and signs and symbols.

This program is both versatile and easy to use. For example, you can pause at any time to study a particular screen's information. You can also return to the menu at any time. In addition, all your responses consist of single keystrokes. Once you complete this program, you're on the road to an exciting new interest with unlimited horizons.

The author invites written questions and comments.

### REVIEW COMMENTS

MUSICAL COMPUTER is a comprehensive look at musical concepts and notation. However, it's not very interactive, and you can't create or play music with it.

Familiarity with music is helpful, but not necessary. The treatments of rhythm and volume markings are particularly well done.

The user manual is GOOD.

### REQUIRES

ATARI Basic Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	40K	\$14.95	APX-20098

## HICKORY DICKORY

by Dale Disharoon

Recommended for ages 5-11/Written in BASIC



Do you know children who, given the choice between reading the time on a traditional clock in the same room and a digital one in another room, will opt for the extra footwork to read the digital time? Many children today grow up with only digital clocks around the house. When they're faced with a traditional clock with hands, they're often stumped. HICKORY DICKORY can help children master the translation process between these two ways of telling time. Teachers in grades kindergarten through sixth have used HICKORY DICKORY to help students learn to tell time. The program displays time using hour and minute hands on a traditional face clock in high resolution graphics. Using either the computer console's keyboard or a Joystick Controller, the child gives the digital equivalent. HICKORY DICKORY offers six skill levels: exact hours, half hours, 15-minute intervals, 10-minute intervals, 5-minute intervals, and all possible minutes. The child selects the number of examples to try. When he or she answers correctly on the first try, the program notifies the child and goes on to the next example. When he misses on the first try, the program displays a clue and asks him to try again. It moves on to a new example only after the child answers the current one correctly. A running score displays after each example and the total score displays at the end of the session.

The author invites questions and comments by telephone and mail.

### REVIEW COMMENTS

This is a good program for teaching children to convert "clock time" to digital time. It uses the Joystick well.

Distinguishing between two adjacent minutes on the clock face is sometimes difficult.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### OPTIONAL

One ATARI Joystick Controller

### ORDER INFORMATION

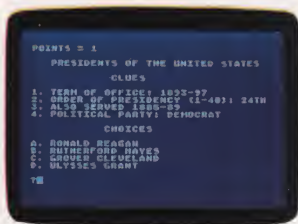
Media	RAM	Price	Order No.
Cassette (410)	16K	\$12.95	APX-10071
Diskette (810)	24K	\$12.95	APX-20071



## PRESIDENTS OF THE UNITED STATES

by Gary A. Dacus

Recommended for ages 10 and up/Written in BASIC



Which president can women thank for giving them the vote? Which president isn't remembered with fondness come April 15 — he gave us our income tax system? Which president suffered through the Iranian hostage crisis? If you can't name these men, then you need **PRESIDENTS OF THE UNITED STATES**. This one-player quiz has two levels. On the novice level, you select a name from four choices; on the advanced level, you type in a president's first and last name — spelling counts! Both levels give you four clues: (1) term of office, (2) order of presidency, (3) political party, and (4) a general clue describing an event during the president's term or something about his personal life. Study the clues carefully, because you have only one chance per question. The program displays a running total of your correct answers as you play and your final total at the end of the 40 questions.

The game remains a challenge even at the novice level in that the four choices for each set of clues change from game to game and the position of the correct answer within the set of four choices can also change from game to game. These variations both add to the game's interest and ensure that correct answers aren't the result of memorizing letter choices. Oh yes, in case you've forgotten, Warren Harding gave women the vote, William Taft was responsible for our income tax system, and Jimmy Carter held office during the hostage crisis.

The author invites written questions and comments.

### REVIEW COMMENTS

This straightforward quiz program is mostly text, using graphics only for the initial display screen.

The programming routines used in the fill-in part let you use various forms of a president's name.

The user manual is **VERY GOOD**.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	24K	\$12.95	APX-10068
Diskette (810)	32K	\$12.95	APX-20068

## STEREO 3-D GRAPHICS PACKAGE

by Clyde Spencer

Recommended for teenagers and up/Written in BASIC



**STEREO 3-D GRAPHICS PACKAGE** can introduce you to the world of real 3-D. These programs generate stereograms that let you learn to see a wire-frame stereo model in true three dimensions. Using a simplified approach to the conventional Cartesian coordinate system, you build your model around the center of the "universe" — your TV screen. You then imagine you're in a balloon or aircraft looking down toward the ground and are free to move anywhere you want in the universe. You define your viewing position with the appropriate X, Y, and Z coordinates and the program automatically calculates the parameters to place the center of the universe in the center of your TV screen. You can view objects from anywhere — above, below, behind, and even inside. You can vary the field of view from 2 to 179 degrees, similar to the range from telephoto to normal to wide-angle viewing.

Most of the stereogram drawing is in the ATARI Computer's high-resolution graphics mode. However, the program also draws a red and green stereopair in medium-resolution graphics mode so users not owning a stereoscope and not being able to direct stereoview can use inexpensive anaglyphic (red and green) glasses to learn direct on-screen stereoviewing.

### REVIEW COMMENTS

This is a good but complex tool for working with stereo stick figures and photographic techniques. You'll need to read the user manual carefully and experiment awhile. It's good for learning coordinate geometry. Not everyone can see 3-D with the glasses, while people good at seeing stereo can see it without them. You have to make the glasses yourself. Instructions are provided.

### REQUIRES

ATARI BASIC Language Cartridge

### OPTIONAL

ATARI Paddle Controllers  
Pocket (folding) stereoscope  
Polaroid camera  
Anaglyphic glasses (red and green lenses)

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	\$17.95	APX-20087



## STARWARE

by Harry Koons and Art Prag

Recommended for ages 14 and up/Written in BASIC



City lights, cloudy skies, and pollution needn't prevent you from stargazing. With STARWARE you can explore the heavens by way of your ATARI Home Computer. STARWARE displays the stars on your TV screen with the brilliance normally seen only by astronomers at remote mountaintop observatories. Its 900 star coordinates accurately locate all the constellations in both hemispheres. You can display high-resolution diagrams of each constellation and high-res maps of the heavens visible from your home (or any other location) at any date and time this century, down to the second. Even the bright planets, sun, and moon are accurately located with respect to the stars. STARWARE takes about 4½ minutes to generate a complete high-res map.

The program prompts you for the necessary information, such as longitude, latitude, and time zone, to draw your requested map. You can look at a map in two ways — first with only the stars and then with the constellations outlined. STARWARE has beginner and advanced quizzes for testing your progress in learning to identify the program's 66 constellations.

The program also has handy features for telescope owners. It quickly calculates Local Sidereal Time (a time related to stars), letting you easily set the hour circle on your telescope. A "finder" option lets you specify the Right Ascension and Declination of the center of the map and the size of the field of view. This information is useful for locating objects in astronomy books and comets as they're discovered. Happy stargazing!

The authors invite written questions and comments.

### REVIEW COMMENTS

With good program design and human engineering, STARWARE makes excellent use of the ATARI Computer's high-resolution graphics. Even novice astronomers will enjoy STARWARE.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

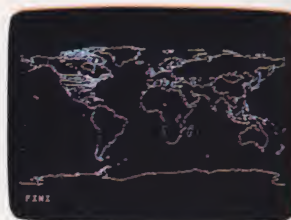
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	40K	\$17.95	APX-20111

## MAPWARE

by Harry Koons and Art Prag

Recommended for teenagers-adults/Written in BASIC



With the MAPWARE programs you can create a wide variety of high-resolution world maps, store your maps, and display them whenever you like. MAPWARE contains nearly 9000 pairs of geographic coordinates for locating main land masses and islands on Earth. These maps are useful for such applications as games and simulations, tracking satellites, pointing amateur radio antennas, and teaching geography and cartography. The menu-driven programs create and display maps in four different projections: cylindrical (rectangular equal-spaced), orthographic equatorial, azimuthal equidistant, and general perspective (global). Try drawing a world map as you would see it from any distance above your hometown. The map creation program prompts you for the data needed, such as the longitudinal and latitudinal endpoints of your map.

MAPWARE comes on two diskettes — one containing the programs to display and create maps and one containing the coordinate data. You also need a blank formatted diskette on which to store data for the maps you create. MAPWARE comes with five sample maps.

The authors invite written questions and comments.

### REVIEW COMMENTS

The maps look quite realistic; the amount of detail is impressive. The authors put a lot of work into MAPWARE.

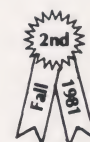
The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	40K	\$20.95	APX-20055





## ATLAS OF CANADA

Recommended for ages 10 and up/Written in BASIC



What is the capital of Nova Scotia? Is the largest Canadian city also Canada's capital? How many provinces does Canada have? ATLAS OF CANADA can give you the answers. The program first draws an outline of Canada and then outlines a province or landmark in white and asks you to name it (and its capital, if it outlines a province). As a clue, the number of letters in the names display. Should you guess wrong (spelling counts!), the correct answer displays. The outline then changes to blue and the program outlines another province or landmark.

The program keeps score of your correct guesses and displays your final scores. It presents the provinces, capitals, and landmarks in a different order each time you begin a session, so memorizing an order won't help!

How did you do with the questions at the beginning? The capital of Nova Scotia is Halifax. The largest city in Canada is Montreal, but Canada's capital is Ottawa. Canada has ten provinces.

### REVIEW COMMENTS

This is the Canadian version of ATARI States & Capitals.

The map is rather small.

The user manual is GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10093
Diskette (810)	32K	\$17.95	APX-20093

## QUIZ MASTER

by Ingrid Langevin

Recommended for ages 8 and up/Written in BASIC



QUIZ MASTER is a classroom-tested, dual-purpose educational tool. Teachers and parents can use it to create five kinds of computer-assisted instruction (CAI) quizzes and students can use it to take the quizzes. Depending on the nature of the material, children as young as third graders can take QUIZ MASTER quizzes.

You can create vocabulary review (or spelling tests), true/false quizzes, and multiple choice quizzes with three, four, or five answers, and you can revise your quiz questions as needed. To create a quiz, you answer a series of questions. For example, to create a vocabulary review quiz, QUIZ MASTER asks you questions like "What is word #1" and "What is its definition?", to which you type in responses. When you're finished, QUIZ MASTER stores your quiz as a data file on either cassette or diskette. The new quiz is then immediately available for use. These quizzes use an encouraging approach. Incorrect answers elicit gentle responses like "OOPS!" Correct answers reward students with superlatives like "AMAZINGLY STUPENDOUS!" The final score displays at the end of a quiz.

Although QUIZ MASTER is available only on diskette (because it consists of several files), the user manual contains instructions for transferring the program to cassette, an easy procedure. Once transferred, QUIZ MASTER can run on a cassette system with 16K of RAM.

The author invites written questions and comments.

### REVIEW COMMENTS

This is a straightforward implementation of a quiz program suitable for personal or classroom use. The human engineering and program flow could be better. That QUIZ MASTER varies its responses for correct and incorrect answers makes the quizzes more interesting than usual.

The user manual is VERY GOOD.

### REQUIRES

ATARI Basic Language Cartridge

### OPTIONAL

One ATARI Joystick Controller

### ORDER INFORMATION

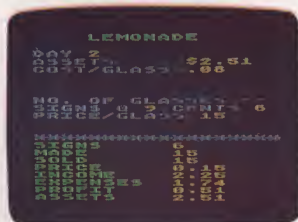
Media	RAM	Price	Order No.
Cassette (410)	see text		
Diskette (810)	32K	\$17.95	APX-20081



## LEMONADE

by Bob Polaro

Recommended for ages 8-12/Written in BASIC



Have you dreamed about starting your own small business? LEMONADE tests your business acumen! Your lemonade stand could make you rich. On the other hand, you could go bankrupt. And if you do, the game's over. The object is to amass a fortune by weighing your production and advertising costs against anticipated sales. Your costs vary as the economy fluctuates. Other conditions, like heat waves and road construction, can affect your sales. But, like the real world, you don't see their effect until after you've committed your assets.

LEMONADE has become a classic computer game for teaching basic economic concepts, such as the effect on demand of setting prices, the impact of advertising, and the influence of general events on business ventures. Each day, the lemonade stand owner notes his available assets and considers any known conditions, which display on the video screen. Then the owner decides how many glasses to prepare, how many advertising signs to make at a given cost, and how much to charge per glass. The outcome of each day's decisions determines the assets available in subsequent days for production and advertising.

### REVIEW COMMENTS

Very easy to use. Also very easy to go bankrupt if you're greedy.

LEMONADE uses minimal sound effects and, although the information displays in various colors, it uses no other graphics. Therefore, it might not hold the attention of young players, unless they use the program as part of a lesson.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

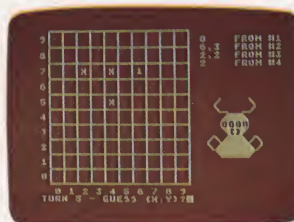
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$12.95	APX-10001
Diskette (810)	16K	\$12.95	APX-20001

## MUGWUMP

by Bob Polaro

Recommended for all ages/Written in BASIC



Four smug mugwumps are hiding in a ten-by-ten grid. Your objective is to locate all four within ten turns. You search by entering numbers representing horizontal and vertical coordinates on the grid. After you enter a pair of numbers, the computer tells you your distance from each hidden mugwump. Any mugwump you discover yelps and flashes on the screen in hurt surprise. Younger players can become familiar with the coordinate system through playing MUGWUMP; older players can put their trigonometry to work to locate the elusive mythical beasts.

### REVIEW COMMENTS

This game is rather static and soundless, but it might interest gamers who like using mathematics or intuition to find hidden objects.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	8K	\$12.95	APX-10005
Diskette (810)	16K	\$12.95	APX-20005



## Entertainment



### BLOCK BUSTER

by Alan Griesemer and Stephen Bradshaw

Recommended for ages 9 and up /Written in QS Forth



What do you do when you're faced with 43 quintillion possible combinations for solving a puzzle? "The cube" puzzle is a national obsession and it has caused many of us untold frustration. BLOCK BUSTER can help you master that innocent-looking block.

The challenge of cubic puzzles is to unscramble a patchwork of colors so that each side ends up a different solid color. BLOCK BUSTER offers significant advantages over both the cube itself and printed solutions. For one thing, all six sides of the cube display at once! You move the cube's faces either directly with a Paddle Controller or indirectly by entering simple commands in a command window. The program translates your Paddle Controller moves into the corresponding commands and displays them in the command window, letting you note and repeat successful series of moves. The authors base their commands on the notation used in Douglas Hofstadter's article, "Metamagical Themes," in the March 1981 issue of *Scientific American*. Also of great help is the ability to set up the cube to conform to the configuration of a real cube you're stymied by and then, with one command, tell BLOCK BUSTER to solve the puzzle! The program records its moves in the command window. You can also command BLOCKBUSTER to scramble a puzzle for you, when you feel like facing the unknown. Cube fanatics will appreciate the program's timer and move counter displays. Warning! You probably won't spend any less time working cubic puzzles because of this program; BLOCK BUSTER itself is highly addictive.

The authors invite written questions and comments.

#### REVIEW COMMENTS

Program features are comprehensive. The SCRAMBLE and SOLVE commands are particularly useful. The graphics representation of the block is well done.

BLOCK BUSTER isn't suitable for black and white televisions.

The user manual is VERY GOOD.

---

#### REQUIRES

No required accessories

---

#### OPTIONAL

One ATARI Paddle Controller

#### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	32K	\$14.95	APX-10110
Diskette (810)	32K	\$14.95	APX-20110



## EASTERN FRONT (1941)

by Chris Crawford

*Recommended for teenagers and up/Written in machine language*



Operation Barbarossa, the German invasion of Russia during World War II started a campaign lasting nearly four years and taking nearly 20 million lives. Could you have done better than the real German commander? See how well you can maneuver your troops to obtain a good position before the winter sets in and the Russian counteroffensives begin!

EASTERN FRONT is an exceptionally complex one-player wargame. It re-creates the conditions of the campaign, including terrain, seasons, and types of military units, and it adjusts these factors over time. The game closely follows the historic sequence of events. The Germans sweep in, wiping out Russian armies everywhere. But the Russians keep fielding new armies and the Germans, depleted by a long campaign, start to wear down upon approaching Moscow. Reaching Moscow as the mud season sets in, the Germans fail to take the city. They resume their offensive thrust during the winter, making further gains, but they can't achieve decisive results. Their rapidly fading strength combined with the growing Russian strength first halt their advance and then force them to retreat. Your goal is to see if you can change the course of history, given the same physical conditions the German troops faced.

Each turn in EASTERN FRONT covers one week of history. To help you plan your moves, you can display vital information about a unit's muster and combat strength. For realism, you can move your troops only so far within a week. At the same time you're figuring your strategy, the computer is working out the Russian maneuvers. Hence, the longer you take to work through your moves, the more time the computer has to plan its own moves, (However, EASTERN FRONT has a handicap provision for novice wargame players.) Then on your command the computer simultaneously executes all orders. It moves troops and fights battles, taking into account terrain, type of unit, season, and presence of other units. Then it performs a variety of calculations related to the passage of time, including updating the date display, reconfiguring the map for the season, bringing in reinforcements, adding replacements, figuring logistics, and extracting penalties for troops whose supplies are cut off.

At the end of each week, the computer evaluates your performance and assigns you a score. Recalculated each week, your score reflects how far east your troops have moved, their aggregate muster strength, how far west the Russians moved, and their aggregate combat strength. In addition, if you captured key Russian cities, you earn extra points.

The use of intricate artificial intelligence routines makes EASTERN FRONT a challenging wargame. It approximates the true historical perspective of the campaign, making the game at once both complicated and rewarding to play. EASTERN FRONT also makes exceptional use of the technical capabilities of ATARI Home Computers. The result is a wargame that outshines virtually any other wargame available. For example, EASTERN FRONT uses player missile graphics to move your cursor smoothly over the foreground without disturbing the terrain and troops in the background. Multiple re-defined character sets permit a colorful and detailed terrain along with a text display. A custom display list is responsible for EASTERN FRONT's unique screen format. Multiple display list interrupts allow for lots of color — as many as eighteen colors on the screen at a time. Fine scrolling gives EASTERN FRONT a map occupying roughly ten screens of area — 2 1/3 horizontal screens and 4 1/3 vertical screens — that scrolls smoothly in any direction. And multitasking permits simultaneous moves by both you and the computer.

### REVIEW COMMENTS

This is the best computer wargame we've ever seen. The graphic display is stunning.

Because EASTERN FRONT eliminates the drudgery of playing wargames, many people who've never cared for wargames before can enjoy this one.

The game takes two or three hours to play and you can't save it, so be prepared for a marathon.

The user manual is VERY GOOD.

### REQUIRES

One ATARI Joystick Controller

### ORDER INFORMATION

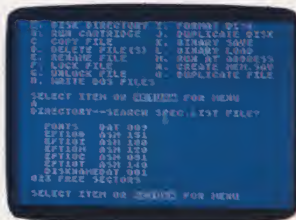
Media	RAM	Price	Order No.
Cassette (410)	16K	\$29.95	APX-10050
Diskette (810)	32K	\$29.95	APX-20050



## SOURCE CODE FOR EASTERN FRONT (1941)

by Chris Crawford

Recommended for advanced programmers/Written in assembly language



You've played the game . . . now read the code! Intended for advanced programmers, this package takes you behind the scenes for a look at the thought processes involved in creating a sophisticated, computerized wargame. This diskette contains all the source code files for EASTERN FRONT (1941) — about 700 sectors of code! The user manual contains a complete source and object code listing, as well as the following sections:

- Program structure review
- Detailed memory map
- Unit characteristics chart
- Map diagrams
- Explanatory essays on each module
- Narrative history of EASTERN FRONT development
- Discussion of game design considerations

The package is like a tutorial on advanced game design.

The diskette contains only the source code (that is, the English equivalent of the code the computer runs) for EASTERN FRONT. The object code (that is, the code the computer runs) is sold separately as APX-20050. Only advanced programmers should consider using the source code in this package to create an object file for running EASTERN FRONT instead of purchasing the object code.

The thick, detailed user manual is VERY GOOD.

### REVIEW COMMENTS

To get maximum benefit from this package, you need a good understanding of assembly language programming and you should be comfortable using the Assembler Editor Cartridge. Assembly language programmers inexperienced in writing large programs will especially benefit from this package.

### REQUIRES

Assembler Editor Cartridge

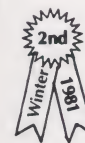
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	40K	\$49.95	APX-20095

## DOG DAZE

by Gray Chang

Recommended for ages 8 and up/Written in machine language



Have you ever wondered what attracts Fido to every hydrant he passes? DOG DAZE probably can't solve the mystery, but this game gives you the chance to put yourself in Fido's place. DOG DAZE is a fast-paced, two-player action game requiring skill, strategy, and luck. You control your dog with your Joystick. Each time a fire hydrant pops up on the screen, your dog and your opponent's scramble to claim it first. Because only one unclaimed hydrant pops up at a time, you're both after the same target. You claim a hydrant either by running into it or by shooting your bone at it. However, if your bone misses, you'll have to retrieve it before you can shoot it again. Each claimed hydrant changes to the color of the claimant. As the game progresses, claimed fire hydrants start filling the screen. You can zip right through your own hydrants, but if you run into your opponent's hydrant, you're penalized. A scoreboard of fire hydrants at the top of your TV screen shows who's ahead. The winner is the holder of more hydrants at the end of the time you set for the game, or the first to fill the scoreboard. You can set the time limit from 1 minute to 16 minutes. DOG DAZE also has a handicap option so that novice hydrant chasers can challenge pros.

The author invites written questions and comments.

### REVIEW COMMENTS

This game is fun! It spans all ages. Kids will like the dogs, hydrants, and sounds, and adults will enjoy its competitiveness, especially with the time option.

The game could use a few more features and fancier graphics.

The user manual is VERY GOOD.

### REQUIRES

A set of ATARI Joystick Controllers

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	8K	\$17.95	APX-10069
Diskette (810)	24K	\$17.95	APX-20069



## 747 LANDING SIMULATOR

by William J. Graham

Recommended for ages 12 and up/Written in BASIC



Here's a game that gives all would-be jumbo jet pilots the frustration, anxiety, and thrill of landing their very own 747 jet airliner. From the cockpit, you see the airport runway and horizon presented in true perspective; your instrument panel display, which is continuously updated, appears at the bottom of your screen. Runway lights flash for pilot guidance, and they brighten as you approach the airport. For further realism, you hear the sounds of air turbulence, various warning signals, and other events. You even hear your engines' deceleration upon landing your aircraft successfully. However, you'll probably have to practice landing many times before you get this far. At the end of your flight, you receive a score that reflects not only your expertise in landing safely but also the quality of your runway approach — how much fuel you used and how long you took to land. The game has three levels of difficulty and two options — landing with instruments on and with instruments off (that is, the instrument display isn't updated).

747 LANDING SIMULATOR uses some interesting graphics. For example, it uses player missile graphics for the midair collisions, a custom designed character set, and a modified display list to obtain large text in the text window.

The author invites questions and comments by telephone.

### REVIEW COMMENTS

This game is fascinating, complex, and hard to master. The joystick commands take getting used to. The game calls for patience and perseverance.

Because the game is written in BASIC, it doesn't have the illusion of real-time flight.

The user manual is VERY GOOD. You must read it to understand how to play the game.

### REQUIRES

ATARI BASIC Language Cartridge  
One ATARI Joystick Controller

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	24K	\$17.95	APX-10043
Diskette (810)	32K	\$17.95	APX-20043

## DOMINATION

by Alan M. Newman

Recommended for ages 12 and up/Written in BASIC



Here's a game where greed, cunning and ruthlessness can work to your advantage. Of course, judicious planning, quick reflexes, and some occasional diplomacy also help. In DOMINATION, between one and five players compete for power via economic means and nuclear or conventional warfare. You must make decisions quickly, exercise skillful hand-eye coordination, outguess your opponents, and cope with random events. You decide the length of the game by setting the number of years you want to cycle through. A cycle consists of three phases for each player. In the Nuclear Conflict phase, you can declare war against any opponent. Then you try to outguess your enemy during seven missile launches. In the Asset phase, you buy, sell, and reallocate assets to prepare for the final phase. In the Domination phase, you choose a country to fight or to try a little diplomacy on — either way, you're after its assets. Should you declare war, you then allocate your armies and personally shoot the cannons. When you prevail, all the country's assets transfer to you; when you lose, your assets diminish according to how heavily you committed yourself. Winner is the richest superpower at the end of the specified time span.

The author invites written questions and comments.

### REVIEW COMMENTS

DOMINATION is like three games in one. It's especially fun with several players.

The Paddle Controller aspects of the game could use some finer tuning.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
One set of ATARI Paddle Controllers

### ORDER INFORMATION

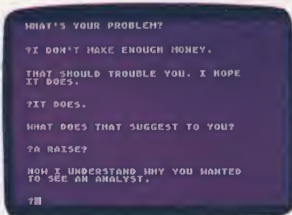
Media	RAM	Price	Order No.
Cassette (410)	24K	\$17.95	APX-10041
Diskette (810)	32K	\$17.95	APX-20041



## TERRY

by Ingrid Langevin Solem

Recommended for ages 10 and up/Written in BASIC and machine language



Your guests languidly dunk the chips in the dip. Their eyes glaze over in boredom. Only their hands are active... stifling yawns. The awkward conversational pauses stretch out interminably. Your party is going down the tubes. It's time to bring in TERRY! Not only can she breathe life back into your party, but she can even help you and your guests figure out why the party is bombing, if you're curious to know the reason. Granted, TERRY can be sarcastic at times, and sometimes TERRY's comments make sense only to TERRY. But as analysts go, she's cheap and she's always available. Besides, how else could you save both your party and your composure? (P. S. TERRY is also a good companion when you're all alone.)

TERRY is your very own analyst. Depending on your mood, you can engage her in light conversation, or you can reveal your innermost feelings. While she doesn't promise to clear up all your problems, she will keep your sessions in the strictest confidence, so feel free to reveal all. And she's very easy to use. You can start conversing as soon as she automatically loads into computer memory. You talk to TERRY via the keyboard, and she displays her responses on your screen. She can last as long as you can — long after your last guest has departed!

### REVIEW COMMENTS

TERRY is a lightweight version of the artificial intelligence programs designed to imitate psychotherapists. However, TERRY doesn't pretend to be as smart or as probing. She favors, instead, rollicking repartee.

Some of TERRY's responses are a little odd!

The user manual is GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

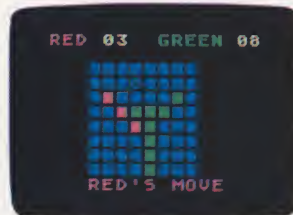
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	32K	\$12.95	APX-10047
Diskette (810)	32K	\$12.95	APX-20047

## REVERSI II

by Russell Segal

Recommended for ages 6 and up/Written in machine language



REVERSI II is a two-player strategy game playable on several levels. The object is to outflank your opponent's squares on two sides — vertically, horizontally, or diagonally — to capture them. You win if you have more points than your opponent when the last square on the grid is filled. Often a substantial lead can vanish with one strategically placed marker. One player can compete against another player, using one or two Joystick Controllers, or one player can compete against the computer at three different levels. At the easiest level, the computer always takes the most pieces possible on a move. At the intermediate level, it studies not only its possible moves but your resulting countermoves, thereby playing a good defense. At the highest level, the computer considers its moves, your responses, and its next move; it also judges the value of each square, since some are considered more valuable than others.

Another option offers an unusual feature — you can watch as the computer figures out its next move (using the highest level of strategy). On its turn, the computer displays the number of squares to be gained for any legal move and the value of each square after considering the next few moves. Then, after adding the weighting of this value to each square, the computer makes its move.

The author invites written questions and comments.

### REVIEW COMMENTS

The computer's quick response makes the game fun to play. Because this is a much better program than our original REVERSI, it replaces the original.

The computer is a challenging opponent.

The option showing the computer's thought processes isn't very useful.

The user manual is VERY GOOD.

### REQUIRES

One ATARI Joystick Controller

### OPTIONAL

A second ATARI Joystick Controller

### ORDER INFORMATION

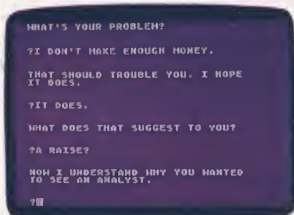
Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10077
Diskette (810)	24K	\$17.95	APX-20077



## TERRY

by Ingrid Langevin Solem

Recommended for ages 10 and up/Written in BASIC and machine language



Your guests languidly dunk the chips in the dip. Their eyes glaze over in boredom. Only their hands are active... stifling yawns. The awkward conversational pauses stretch out interminably. Your party is going down the tubes. It's time to bring in TERRY! Not only can she breathe life back into your party, but she can even help you and your guests figure out why the party is bombing, if you're curious to know the reason. Granted, TERRY can be sarcastic at times, and sometimes TERRY's comments make sense only to TERRY. But as analysts go, she's cheap and she's always available. Besides, how else could you save both your party and your composure? (P. S. TERRY is also a good companion when you're all alone.)

TERRY is your very own analyst. Depending on your mood, you can engage her in light conversation, or you can reveal your innermost feelings. While she doesn't promise to clear up all your problems, she will keep your sessions in the strictest confidence, so feel free to reveal all. And she's very easy to use. You can start conversing as soon as she automatically loads into computer memory. You talk to TERRY via the keyboard, and she displays her responses on your screen. She can last as long as you can — long after your last guest has departed!

### REVIEW COMMENTS

TERRY is a lightweight version of the artificial intelligence programs designed to imitate psychotherapists. However, TERRY doesn't pretend to be as smart or as probing. She favors, instead, rollicking repartee.

Some of TERRY's responses are a little odd!

The user manual is GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

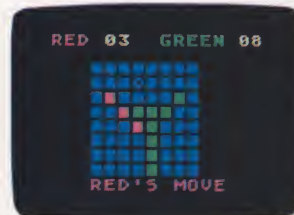
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	32K	\$12.95	APX-10047
Diskette (810)	32K	\$12.95	APX-20047

## REVERSI II

by Russell Segal

Recommended for ages 6 and up/Written in machine language



REVERSI II is a two-player strategy game playable on several levels. The object is to outflank your opponent's squares on two sides — vertically, horizontally, or diagonally — to capture them. You win if you have more points than your opponent when the last square on the grid is filled. Often a substantial lead can vanish with one strategically placed marker. One player can compete against another player, using one or two Joystick Controllers, or one player can compete against the computer at three different levels. At the easiest level, the computer always takes the most pieces possible on a move. At the intermediate level, it studies not only its possible moves but your resulting countermoves, thereby playing a good defense. At the highest level, the computer considers its moves, your responses, and its next move; it also judges the value of each square, since some are considered more valuable than others.

Another option offers an unusual feature — you can watch as the computer figures out its next move (using the highest level of strategy). On its turn, the computer displays the number of squares to be gained for any legal move and the value of each square after considering the next few moves. Then, after adding the weighting of this value to each square, the computer makes its move.

The author invites written questions and comments.

### REVIEW COMMENTS

The computer's quick response makes the game fun to play. Because this is a much better program than our original REVERSI, it replaces the original.

The computer is a challenging opponent.

The option showing the computer's thought processes isn't very useful.

The user manual is VERY GOOD.

### REQUIRES

One ATARI Joystick Controller

### OPTIONAL

A second ATARI Joystick Controller

### ORDER INFORMATION

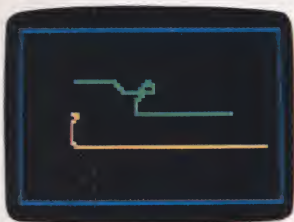
Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10077
Diskette (810)	24K	\$17.95	APX-20077



## BLOCK 'EM

by Jose Suarez

Recommended for ages 8 and up/Written in BASIC



BLOCK 'EM offers you a harmless way to vent your aggressions and enjoy yourself at the same time. In this two-player game, you each build a maze-like wall with your joysticks in an attempt to box the other in first. Every collision you force on your opponent earns you a point as well as the satisfaction of seeing your opponent's wall glow and then disintegrate before your very eyes! Simultaneous collisions of both players earn no points for either one.

BLOCK 'EM offers several interesting options. You determine the winning score — anywhere from 1 to 99 points — for quick or prolonged games. You also choose whether to build small-block or large-block mazes. You can usually play longer, more intricate rounds with small-block mazes, but young or novice players might prefer the larger block size at first. You can also select from six play speeds. Besides snail, slow, fast, and full-tilt paces, BLOCK 'EM also offers a progressive or a rapid acceleration from slowest to fastest pace as a round progresses. The game demands both reflex speed and strategy, but the relative importance of each depends on the options you select. For example, in the large-block field at full speed, avoiding collisions will take most of your time, whereas in the small-block field at slow speed, you'll have plenty of time to plan your moves.

Why not challenge the boss the next time he turns down your request to attend that conference in Paris?

The author invites written questions and comments.

### REVIEW COMMENTS

The options make this game more interesting than the standard versions. The losing player's disintegrating wall creates an amusing effect.

The Joystick response could be better. The game isn't suitable for black and white TV screens.

The user manual is VERY GOOD.

---

### REQUIRES

ATARI BASIC Language Cartridge  
A set of ATARI Joystick Controllers

---

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$12.95	APX-10090
Diskette (810)	24K	\$12.95	APX-20090

## SPACE CHASE

by Fernando Herrera

Recommended for ages 8 and up/Written in BASIC



You're in a beautiful, colorful galaxy. Your mission is to conquer all the planets for the Galactic Federation and then go on to the next galaxy. A piece of cake, right? But don't forget about those dreaded Clone Robot Ships that will pursue you relentlessly to every corner of space, destroying every planet in its path, planets the federation will hold you accountable for.

You move your ship through space with your Joystick until you reach a planet, thereby conquering it. You can plant nuclear charges in the path of the enemy Clone Robot Ships. You can also protect yourself by turning on your shields, but you earn fewer points if you do. Another way to elude the enemy is to venture past the galactic fringe and re-enter the galaxy from the other side.

The more skilled you become at conquering a galaxy, the tougher the challenge you face. In the first galaxy, you must dodge only one Clone Robot Ship. But you face more enemy ships as you enter additional galaxies. You have only one life for your mission, but you can enter any number of galaxies! Your mission ends when an enemy ship destroys you or when your ship explodes from a nuke.

This real-time, fast-paced game offers realistic sounds and colorful displays. Other features of SPACE CHASE are options for number of nuclear charges and whether to use protective shields, intelligent pursuit of Clones, and scoring based on your selected strategy and your skill. You and your friends can compete in three different ways, because SPACE CHASE keeps track of three different scores — the most points earned, the most planets taken, and the most galaxies conquered.

The author invites written questions and comments.

### REVIEW COMMENTS

You can't steer your ship as accurately as you'd like, so hitting a planet is hard when you're close to it.

SPACE CHASE is a little slow, but not enough to keep you from enjoying it. It has good sound effects.

The user manual is VERY GOOD.

---

### REQUIRES

ATARI BASIC Language Cartridge  
One ATARI Joystick Controller

---

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10088
Diskette (810)	24K	\$17.95	APX-20088



## SOLITAIRE

by Mark Reid

Recommended for preteenagers—adults/Written in Basic



You're all knotted up inside because you can't get your mind off the sale you lost yesterday, your overdue mortgage payment, and your wife's recent spending spree at Saks Fifth Avenue. You can usually calm down by playing some hands of solitaire, but your preschooler cut up your last deck of cards to get at all those pretty pictures on the backs. Once again, your ATARI Home Computer can come to your rescue!

SOLITAIRE is a computerized version of the standard, one-player Las Vegas card game. At the top of the screen display are the four ace playing areas, where your goal is to place as many cards as possible to win money. Below this area are seven columns for your seven piles of cards, with one card number and suit face-up in each column. Above each column a number indicates how many cards are face-down in that pile. Beneath the columns is the deck and card discard area. You use your Joystick Controller to pick up and then place a card or stack of cards. Spades and clubs display in inverse video to simulate the red/black difference in card suits.

After playing through the deck once, positioning all the cards possible to build up the ace areas, you earn \$5.00 for every card you've placed in that area. The computer keeps track of the money you win or lose and of the time elapsed. This version lets you play through the deck as many times as you like, but the program calculates money earned/lost and elapsed time only for the first pass. Thus, you can play to completion without affecting the true results. See how long it takes you to win \$500 (maybe you will have calmed down by then)!

The author invites written questions and comments.

### REVIEW COMMENTS

The human engineering and use of the Joystick Controller are very good. This is a realistic simulation of solitaire.

The playing board could use more color and better graphics.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

One ATARI Joystick Controller

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$12.95	APX-10089
Diskette (810)	24K	\$12.95	APX-20089

## BLACKJACK CASINO

by Bill Zimmerman

Recommended for ages 10 and up/Written in machine language



Set out the drinks. Place bowls of munchies around the room. Dim the lighting. Evening dress, however, is optional at this casino. Now invite from one to four players to gather 'round your ATARI Home Computer and spend an enjoyable evening playing blackjack.

BLACKJACK CASINO conforms to the standard game, for many years a worldwide favorite, but it also lets you double down when you have fewer than 12 points, split pairs (in games of one or two players), surrender if you want to cut your losses, and take insurance when the dealer's face-up card is an ace. In addition, it uses the five card Charlie rule (any player holding five cards without exceeding 21 automatically wins against the dealer).

You use your Joystick Controller to enter your initial stake, your bet, and all your playing decisions. You can restart the game at any time and, should you be so unfortunate as to require more money, you can add money to your stake during the game. Depending on their luck and skill, players will come and go during the evening, but the dealer is blessed with unlimited funds, and your BLACKJACK CASINO will provide unlimited hours of entertainment!

The author invites written questions and comments.

### REVIEW COMMENTS

BLACKJACK CASINO is strictly for fun, whereas BLACKJACK TUTOR (APX-10057 and APX-20057) is both for fun and for working on improving your strategy. However, the instructions for BLACKJACK CASINO do contain some strategy suggestions. Also, BLACKJACK TUTOR is meant for one player, whereas as many as four players at a time can play BLACKJACK CASINO.

The graphics are well done, especially the card designs.

The user manual is VERY GOOD.

### REQUIRES

One ATARI Joystick Controller per player

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	8K	\$12.95	APX-10064
Diskette (810)	16K	\$12.95	APX-20064



## BABEL

by Joel Gluck

Recommended for ages 8 and up/Written in BASIC



BABEL is a fast-moving, two-player game packed with sound effects and graphics. You're in a race to build a tower to reach the stars overhead. Which kind of builder are you? One that lays a solid foundation or one that lets the bricks fall where they may? You use your Joystick to lay the bricks that let you climb to the stars and you score points with each star you touch. You win by outscoring your opponent, but you can also lose at any point if you box yourself in with bricks. In addition, building too precarious a structure can cause you to fall and lose points. And just when you think you finally have the game sewed up, you can become the victim of a celestial event or you can incur the wrath of the heavens!

Play BABEL for preset goals, set your own goal, or play an open-ended game. BABEL has three levels of difficulty.

The author invites written questions and comments.

### REVIEW COMMENTS

BABEL is an imaginative game that uses ATARI Computer sound and graphics features creatively.

Playing BABEL takes both dexterity and forethought. At the same time, it's playable on many levels, making it fun for experienced as well as for novice players.

Owing to the colors used, BABEL isn't suitable for black and white TV screens.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
A pair of ATARI Joystick Controllers

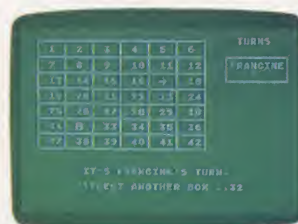
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10038
Diskette (810)	24K	\$17.95	APX-20038

## MEMORY MATCH

by Bruce Frumker

Recommended for ages 6 and up/Written in BASIC



Drat! Where did I see that other heart? Was it "sun" or "son" in box 39? Was that flag in box 17 flying leftward or rightward? "What?" you ask. These are typical comments you'll hear from MEMORY MATCH players. Designed for one to four players, this is a challenging version of the popular memory game requiring players to match pairs of hidden objects. MEMORY MATCH contains 42 numbered boxes hiding 21 matching pairs. You may choose from four kinds of memory challenges. You can select pictures, such as airplanes, boats, houses, space creatures, and rabbits. Or, you can choose the ATARI Computer graphic symbols, which can differ, for example, in whether they're facing left or right, up, down, or diagonally, or are in normal or inverse video mode. You can also choose single letters. Or you pick three-letter words, which pose yet another memory challenge since many of these words rhyme or sound alike, such as "two" and "too," "sit" and "hit," and "hat" and "hot." You enter your pair of number guesses either via the keyboard or with a Joystick Controller. MEMORY MATCH is a game that will interest and challenge all ages.

The author invites comments and questions by telephone and mail.

### REVIEW COMMENTS

This is a good implementation of the classic game. The graphics symbol option is especially challenging.

Designed to avoid distraction, this game isn't visually stunning, but it has all the right features for a game of this kind.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### OPTIONAL

One ATARI Joystick Controller per player

### ORDER INFORMATION

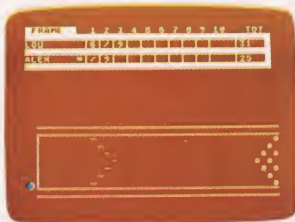
Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10070
Diskette (810)	24K	\$17.95	APX-20070



## PRO BOWLING

by Wesley B. Newell

Recommended for ages 6 and up/Written in BASIC



Remember your anguish over those near strikes, your frustration over just missed spares? Computerized bowling now lets you experience these frustrations in the comfort of your own home! See if you apply the same body English while your ball rolls down the lane on your TV screen that you use in your games at the local bowling alley. As many as four players take turns using their joysticks to position the bowling ball along the foul line and then roll it down the lane. With PRO BOWLING, you can curve the ball left or right or roll it straight from different areas of the foul line to influence the roll. PRO BOWLING doesn't worry about foul line infringements, but it does give you plenty of opportunity to roll gutter balls, if that's your weakness — either from misjudging your roll or from waiting too long to roll the ball.

PRO BOWLING's display screen is divided into two areas. At the top of the screen is the score sheet, divided into ten frames, plus a total for each player. The program fills in each player's score as the game progresses and it prints the totals at the end of the game. At the bottom of the screen is the bowling lane, complete with foul line, lane spots, and pins (depicted as solid dots).

The author invites questions and comments by mail and telephone.

### REVIEW COMMENTS

While PRO BOWLING is somewhat slow, it's a nicely designed BASIC game. The ball uses player missile graphics.

The user manual is GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

One ATARI Joystick Controller per player

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$12.95	APX-10061
Diskette (810)	24K	\$12.95	APX-20061

## ATTANK!

by Joel Gluck

Recommended for ages 10 and up/Written in BASIC



Allow yourself plenty of elbow room when you and your opponent start playing ATTANK! You'll be happily squirming in your chair as you maneuver your two tanks around the battlefield. In this two-player game played with Joysticks your mission is to destroy both your opponent's tanks before he or she destroys yours. You maneuver your forces through a realistically responsive environment of trees, rocks, walls, land mines, tunnels, and rubble and then position and fire your guns when your opponent's tank is within firing range. You can choose day or night battle conditions, or a mixture of the two. If you opt for nighttime, only the tanks and shells are visible on the battlefield, except for brief glimpses during explosions.

Packed with colorful graphics and sound effects, ATTANK! is loaded with playing options, such as the number of hits a tank can sustain before being destroyed, shell range, tunnel pattern, and day and/or night battle conditions. You can choose whether to introduce an element of chance into the game by using the random air raid bomb option. ATTANK! also includes two handicap options so that novices can give pro tank players a real workout. All these options, along with a new battlefield layout every game, create almost unlimited game variations and let you customize the game's battle conditions according to each player's skill.

The author invites written questions and comments.

### REVIEW COMMENTS

ATTANK! is a deluxe version of the standard tank game. The unique two-tank control and the tunnels are great features. The author makes very interesting use of character graphics, especially in the program's introduction and conclusion.

That the tanks turn only in one-eighth increments can be challenging when trying to hit your opponent at close range. Tank motion can be uneven at times.

ATTANK's many options take some reading to understand, but the effort is worthwhile.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

A set of ATARI Joystick Controllers

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	24K	\$17.95	APX-10072
Diskette (810)	32K	\$17.95	APX-20072



## CODECRACKER

by Jose R. Suarez

Recommended for ages 12 and up/Written in BASIC



CODECRACKER will be a breeze for professional cryptographers, but it will really tax everyone else's ability to concentrate and think logically. In CODECRACKER, the computer or your opponent secretly selects a code between three and five digits. You have up to twelve tries in which to break the code. Each time you enter a code, the computer responds with two kinds of clues — it displays a letter "I" for each digit that is part of the code and positioned correctly, and it displays a letter "O" for each digit that is part of the code but is out of order. You use the cumulative information provided by these clues to narrow down the possibilities until you break the code. The fewer turns you take, the lower your score, and the better codecracker you are. In the one-player version, you try to beat your previous score. In the two-player version, you compete against your opponent. You can add to the pressure of the game by using the time option. Whenever you exceed the time limit for a turn, you lose one or more turns (depending on how long you take to complete the turn). You can choose how much time pressure you want to work under.

The author invites written questions and comments.

### REVIEW COMMENTS

This is a good computer implementation of a widely known game of logic. The timing feature really adds to the pressure!

The error handling is excellent.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	8K	\$12.95	APX-10052
Diskette (810)	16K	\$12.95	APX-20052

## BUMPER POOL

by Steve Smith

Recommended for ages 8 and up/Written in BASIC



Has your local pool hall been torn down to make way for another parking lot? Do some of the unsavory characters hanging around the tables keep you from getting off your best shots? Do you get the yen to play when the hall is closed? Whatever your problem, you can still play bumper pool with this two-player computer version of the popular pool hall game. In BUMPER POOL, your goal is to shoot all five of your balls into the opening at the opposite end of the pool table. Twelve round bumpers located in the center and at both ends of the table impede your path. A ball hitting a bumper bounces unpredictably, whereas you can predict the direction in which your ball will travel after a cushion shot off the table edge or a bank shot off other balls. In each turn, you select the ball you want to move, the direction in which you want to move it, and the distance you want it to travel. The computer then follows your instructions. The results can sometimes be all ten balls moving at once! You must play both offensively and defensively — to maneuver your balls down to the other end of the table, while keeping your opponent from pocketing all five opposing balls before you do.

The author invites written questions and comments.

### REVIEW COMMENTS

The colors, sounds, and redefined character set used in BUMPER POOL create some pleasing graphics. It's easy to play the game, but not so easy to pocket the balls. Some of the angles take getting used to. Since the ball motion is handled by BASIC, it's not as smooth as it could be.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

A set of ATARI Joystick Controllers

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$12.95	APX-10053
Diskette (810)	24K	\$12.95	APX-20053



## OUTLAW\*/HOWITZER

Recommended for all ages/Written in machine language



Here are two games to show off your marksmanship. In **OUTLAW** you square off against another cowboy, who has you cornered in the desert. Fortunately for you, you can hide behind cactuses to elude his bullets. You use your Joystick Controller to chase your opponent and to take aim, then to scamper out of range as he fires back at you. You can run him all over the desert, but he's a real sharpshooter, so you'll be doing some fancy footwork to get him before he gets you. The first to score ten hits is the winner.

In **HOWITZER** your tank confronts the enemy tank across a river, which neither of you can cross. You hear your tank rumble as you use your Joystick to maneuver around the field. But you can't count on the trees to protect you from enemy fire. Each cannonball you fire that misses its target leaves a hole in the field, but you'll know when either of you has scored a hit — the earth shakes and the tank explodes. The first to score ten hits is the winner.

You can play **OUTLAW** or **HOWITZER** against the computer or against another player. To compensate for different levels of skill, each side can play with or without handicaps — each game has eight variations.

### REVIEW COMMENTS

Both games use colorful, action-packed graphics and sound effects, which make these games appealing to players of all ages and levels of skill. A good party game!

The user manual is **VERY GOOD**.

### REQUIRES

ATARI Joystick Controller(s)

### ORDER INFORMATION

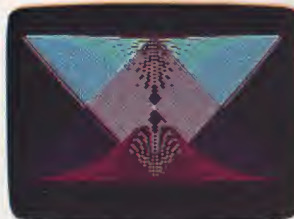
Media	RAM	Price	Order No.
Cassette (410)	24K	\$17.95	APX-10004
Diskette (810)	24K	\$17.95	APX-20004

\***OUTLAW** is a registered trademark of Atari, Inc.



## GRAPHICS/SOUND DEMONSTRATION

Recommended for all ages/Written in BASIC and machine language



This diskette shows off the ATARI Computers' outstanding graphics and sound effects capabilities. An ATARI Computer can produce 128 different colors (16 colors, each at 8 levels of brightness). Use these colors in myriad shapes, patterns, and sequences and just try to imagine the range of special effects possible! This diskette illustrates but a few of the many two- and three-dimensional effects you can achieve with an ATARI Computer. The diskette also contains a scrolling map that demonstrates the ATARI Computers' fine scrolling capability; the assembler source code is included to let you see how it works. By studying the source code of any of these programs, you can adapt the techniques to your own applications.

### REVIEW COMMENTS

Even on a black and white screen these graphics are impressive; on a color screen, they're stunning!

The user manual is **VERY GOOD** for running the programs but only **FAIR** in explaining how the programs work.

### REQUIRES

ATARI BASIC Language Cartridge  
ATARI Joystick Controller  
ATARI Paddle Controllers

### OPTIONAL

ATARI Assembler Editor Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	\$14.95	APX-20028



## LOOKAHEAD

by Johnson Software

Recommended for ages 8 and up/Written in BASIC



LOOKAHEAD is a strategy game played with Joysticks. The game board is a table of numbers. You can move only horizontally across a row; your opponent can move only vertically within a column. The object is to force an end to the game while you have more points than your opponent. You score points by landing on numbers and you end the game by landing on the last number in any column or row. The strategy in LOOKAHEAD isn't as simple as always landing on the highest number, however, because your opponent might then be able to land on an even higher number or force you to move to the last available number in a row while your opponent has the higher score. The sharper your opponent, the further ahead you must plan your moves!

You can play against another player or against the computer, which can play at three levels. You can also specify the highest number you want used in the number table. If you like an element of luck in your games, you can choose to have some numbers in the table display as question marks until selected.

The author invites written questions and comments.

### REVIEW COMMENTS

LOOKAHEAD makes good use of the ATARI Computer's graphics capabilities. Playing against the computer is a challenge for all but very advanced players.

The game is an enjoyable way for children to practice their addition.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
ATARI Joystick Controller(s)

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$12.95	APX-10032
Diskette (810)	24K	\$12.95	APX-20032

## ANTHILL

by Steve Bittrolff

Recommended for all ages/Written in BASIC



After playing this two-player game, you'll watch your step around anthills. You and a friend are at the bottom of a subterranean anthill. The first to reach the surface wins, but it's not simply a matter of tracing the quickest path and using your Joystick to follow it to the top. This anthill is at a construction site, and so paths open and close in the maze as the earth shifts under the weight of the heavy machinery. In addition, a frantic blue ant scurries around the maze trying to keep you from deserting. If it zaps you, you're thrown back to the bottom of the heap, and your race begins anew.

### REVIEW COMMENTS

This is an interesting variation on maze games using a Joystick Controller to move around. You need patience while a path opens up, but you also need speed to beat your opponent and the dynamic maze, which might reclose the path before you can get through it.

The game could be more imaginative. For example, it would be fun to hear the ants scurry around, bounce against closed pathways, and thud back to the bottom of the maze.

Owing to the colors used, the bad blue ant is hard to see on a black and white TV screen. However, you can still play the game, since you know when you've been zapped because of where you land.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
ATARI Joystick Controllers

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	8K	\$12.95	APX-10024
Diskette (810)	16K	\$12.95	APX-20024



## DICE POKER

by Bob Polaro

Recommended for ages 8 and up/Written in BASIC



DICE POKER is a game in which strategy can compensate for bad dice rolls — at least, up to a point! As many as four players or teams can compete at a time. A game consists of thirteen rounds of play. In each round, you can roll any or all of five dice up to three times to obtain one of thirteen scoring combinations, such as aces, three of a kind, and full house. But you must select some combination each turn, even if you score zero points. You earn bonus points for rolling five of a kind or for high scores. Winner is the highest scorer. The diskette version of DICE POKER keeps track of the top ten scores and players' initials.

### REVIEW COMMENTS

DICE POKER keeps score in a nicely formatted display and the program is easy to use.

This makes a good party game because several people can play at a time.

This version doesn't let one player compete against the computer.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

One to four ATARI Joystick Controllers

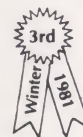
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$12.95	APX-10035
Diskette (810)	24K	\$12.95	APX-20035

## DOWNHILL

by Mark Reid

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



Brrrrr! The nippy air triggers your yen to ski. But it's hard to get away, and even when you can get away, the crowds are starting to spoil your fun. Help is here! With DOWNHILL, you can sit by the fire, sip a cup of hot chocolate, and ski to your heart's content. Not only that — you have the slopes all to yourself! This one-player game challenges your hand/eye coordination and timing precision (but your legs can relax). You use a Paddle Controller to steer your skier around trees and through gates on the beginner, intermediate, or expert course. If you like, you can preview each course before running it, or you can run it sight unseen. The intermediate and expert courses have narrower openings between trees and you'll have to turn your skier uphill if you hope to make every gate. When necessary, you can snowplow (slow down) to avoid hitting a tree or gatepost, which cost you precious seconds. Besides choosing the difficulty of your course, you can also vary the degree of the slope to decrease or increase the speed with which your skier runs the course.

The object is to ski to the bottom of the hill as fast as possible, while making every gate. Each gate missed causes a score penalty. The program keeps track of the best time for each course, so you can compete against a friend's time or against your own best time. SWOOSH! Time to hit the powder!

The author invites questions and comments by mail and telephone.

### REVIEW COMMENTS

DOWNHILL makes colorful and imaginative use of the ATARI Computer's sound effects and graphics features, including vertical scrolling and player missile graphics.

Recovery after wrapping your skier around a tree can be maddeningly slow!

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

ATARI Paddle Controller

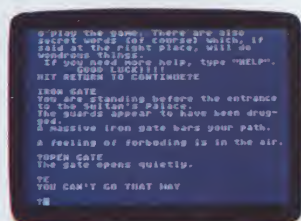
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10063
Diskette (810)	32K	\$17.95	APX-20063



## BASIC ADVENTURES

Here are a variety of BASIC ADVENTURES to exercise your skill at conceptualizing, or for those inclined towards the concrete, at map drawing. Adventures are maze games in which you're given descriptions of your current surroundings; these games use text only — no sound, motion, color, or graphics. Each version places you in a different setting and assigns you a different goal, such as escaping from an evil wizard or finding a treasure. You move around by entering one-letter directional commands like "U" for "up" and "E" for "east." In your meanderings, you encounter objects that you can use in some way to help you accomplish your task or to protect you from impending dangers. You use these objects by entering two-word commands such as "TAKE KEY" and "READ BOOK." If you're stumped, you can ask for hints, and you can also use one-letter commands to recall a description of your immediate surroundings or a list of any objects you've brought along with you. In addition, each version has secret words, which, when used at the right time and in the right place, effect wondrous results. Descriptions of each version follow.



## CASTLE

by Robert Zdybel

*Recommended for preteenagers-adults/Written in BASIC*

You must find an escape route out of an enchanted castle in which you've been imprisoned by a wrathful wizard. You can go from bell towers to dungeons looking for an exit, but don't pass up chances to bring along such helpful objects as amulets and swords or you'll be unprepared when you finally see a way out.

### REVIEW COMMENTS

This version will interest all but advanced Adventure players. It has imaginative, often humorous text.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	24K	\$14.95	APX-20019

## WIZARD'S GOLD

*Recommended for preteenagers-adults/Written in BASIC*

You're in another magical castle, but this time your task is to find a hidden bar of gold and return it to its rightful place. You start in the wizard's bedroom, but the gold is hidden in the dark catacombs underneath the castle. The wizard will use all his wiles to keep you from finding it.

### REVIEW COMMENTS

This is a typical version of Adventure... and just as typically frustrating. It has a fairly large realm.

The text layout is rough compared to that in the other Adventures.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	24K	\$14.95	APX-20020



## CHINESE PUZZLE

by Dennis Koble

*Recommended for teenagers-adults/Written in BASIC*

This one is for jigsaw puzzle fans and for those who relish a real Adventure workout. In this diabolical version, you've been drugged by a Chinese madman. Upon regaining consciousness, you find yourself locked in a suite of rooms from which you try desperately to escape. Unlike most Adventures, the rooms hold no helpful hints. You'll need patience, endurance, and an understanding of the clever Oriental mind to win your freedom.

### REVIEW COMMENTS

This game is somewhat different from the standard Adventures in that it's mostly maze-oriented, containing few objects or actions. Getting trapped in wrap-around rooms can be very frustrating.

The user manual is VERY GOOD.

---

### REQUIRES

ATARI BASIC Language Cartridge

---

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	24K	\$14.95	APX-20023

## SULTAN'S PALACE

by Dennis Koble

*Recommended for adults/Written in BASIC*

The notorious Sultan Abdul has abducted the sheik's daughter, Princess Fatima, and is holding her captive while he arranges for their wedding. Gallantly, you accept the distraught father's plea to rescue the princess from Abdul's pleasure palace. But to rescue her, first you must find her. Your will power will be sorely tested if you happen to wander into certain of the Sultan's special rooms. This version is for adults and mature teenagers.

### REVIEW COMMENTS

This is an R-rated Adventure. The verbs are the usual ones, but how they combine with certain objects makes the result quite provocative. This version also has many humorous comments.

The user manual is VERY GOOD.

---

### REQUIRES

ATARI BASIC Language Cartridge

---

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	\$14.95	APX-20025

## SLEAZY ADVENTURE

by Bob Smith

*Recommended for teenagers-adults/Written in BASIC*

Your friend has purchased a sailboat, currently moored in Thailand. Never one to pass up an opportunity for a quick buck or new experiences, you volunteer to sail it home for her, thinking you can use it to import contraband. Of course, the more valuables you take, the greater the risks you face. Upon landing at the Bangkok International Airport, your first task is to find the sailboat. But this is the mysterious Orient, and nothing is what it seems.

### REVIEW COMMENTS

This version is fun because it takes place in several environments and it requires shifts in command syntax.

The user manual is VERY GOOD.

---

### REQUIRES

ATARI BASIC Language Cartridge

---

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	\$14.95	APX-20021

## ALIEN EGG

by Robert Zdybel

*Recommended for preteenagers-adults/Written in BASIC*

You awake from a deep sleep to find yourself the only one left aboard your spaceship. Having a keen sense of adventure, you decide to complete the mission alone. Thus, you must figure out how to suit up, exit the spacecraft, capture a specimen of the inhabitants (an alien egg), and return it to the ship's lab for analysis. Exiting your spacecraft is a feat in itself!

### REVIEW COMMENTS

This version has many humorous comments. It will appeal to science fiction fans and to intermediate-to-advanced Adventure players.

The user manual is VERY GOOD.

---

### REQUIRES

ATARI BASIC Language Cartridge

---

### ORDER INFORMATION

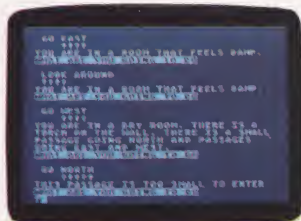
Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	24K	\$14.95	APX-20022



## WIZARD'S REVENGE

by Max Manowski

Recommended for preteenagers-adults/Written in BASIC



As a non-believer, you casually make a deprecating remark about wizard believers. Next thing you know, you're transported to a strange and hostile land with nothing but the clothes on your back. It's wizard country and you'd better high tail it out of there! However, that's easier said than done, as you'll soon discover.

This version of Adventure accepts free form commands and it contains some randomness from session to session. It's full of traps. Even using the HELP command can get you into trouble.

### REVIEW COMMENTS

Although a typical Adventure, this one contains some sounds and it has a chatty approach. Be prepared to die many times before you figure out how to avoid all the traps.

The user manual is GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	24K	\$12.95	APX-20054

## AVALANCHE\*

by Dennis Koble

Recommended for all ages/Written in machine language



If you like fast-moving games that challenge your manual dexterity, then you'll love AVALANCHE. Six colored layers of graduated rocks are poised overhead. You score points by absorbing the falling rocks with a stack of rectangular shields before the rocks hit the ground. You maneuver your shields back and forth across the bottom of the screen with a Paddle Controller. The impact of the rocks gradually wears away the number and size of your shields, but the rocks keep coming, smaller and faster. If you manage to ward off all the rocks, you face yet another avalanche, but with fewer shields!

Compete against your own best score or pit your skill against an opponent. Four bonus levels challenge your ever-increasing skill. Your chosen bonus level determines the number of misses you're allowed and the number of points you must obtain to earn an extra turn.

### REVIEW COMMENTS

Great use of the ATARI Computer's colors, graphics, and sound. Patterned after the ATARI arcade game of the same name, this game really appeals to all ages — it's simple enough for young players, but it challenges experienced players. It's not meant to be a game of strategy, but is rather a game demanding good motor skills. Makes a great party game.

Your TV picture must be centered to accommodate the playing field.

The user manual is VERY GOOD.

### REQUIRES

ATARI Paddle Controllers

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10003
Diskette (810)	16K	\$17.95	APX-20003

\*AVALANCHE is a trademark of Atari, Inc.



## MINOTAUR

by Steven Cavin

Recommended for ages 9 and up/Written in BASIC



Your fascination with Greek mythology is a constant well-spring for your overdeveloped imagination. After reading about the legendary Minotaur of Cnossus one lazy Sunday afternoon, you doze off . . . soon finding yourself transformed into a little dark square and trapped in a maze. Sharing the maze is one of these half-man, half-bull creatures, disguised as a little light square, eyeing you hungrily. You're just the right size for a Minotaur snack. In this one-player game, your cursor starts at one end of the maze and the Minotaur's starts at the other end — at the only exit, of course. Using your Joystick, you must wind your way out before the Minotaur tracks you down by its keen sense of smell. If it crosses your path, it will devour you. But if you can stay out of its way while inching toward the exit, you'll have outwitted a Minotaur. Now that's something to brag about!

MINOTAUR generates a different random maze and a different background color each time you play.

The author invites written questions and comments.

### REVIEW COMMENTS

Although building the maze takes several minutes, the maze is very well done.

Because MINOTAUR has only one skill level, escaping the maze becomes fairly easy after several rounds.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
One ATARI Joystick Controller

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	24K	\$12.95	APX-10039
Diskette (810)	32K	\$12.95	APX-20039

## CENTURION

by Robert Zdybel

Recommended for teenagers-adults/Written in BASIC



Here's a real-time war game in which you are a Roman centurion assigned to destroy ten hordes of barbarians before they destroy your ten legions. Your legions occupy positions in an 11-by-18 grid of hexagons. But you don't know the locations of the enemy units until one of your units nears an enemy unit; then that unit displays in its hexagon. You move your legions by issuing a series of directional commands. After entering your commands for a unit, you go on to move other units while the program carries out your commands. It also controls the enemy's moves. The barbarians are intent on wiping out your units! Thus, you constantly need to scan the grid for enemy movement and then recall your units to revise your strategy.

CENTURION has ten levels of difficulty to accommodate novice and experienced warriors alike. The high levels allot barbarians greater strength and give you less time to plan your moves. If you vanquish the barbarians, the Roman Senate awards you silver pieces commensurate with your victory.

### REVIEW COMMENTS

This game calls for quick thinking and constant checking of both the graphic and the data displays. The displays do a commendable job of clearly tracking the large amount of information and number of movements involved in playing CENTURION.

The game's human interface is weak. For example, it can become confused if the user makes a mistake, and it's also slow at times.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$14.95	APX-10016
Diskette (810)	24K	\$14.95	APX-20016



## TACT TREK

by Robert Zdybel

Recommended for teenagers-adults/Written in BASIC



In TACT TREK you don't whiz around the galaxy destroying dozens of enemy spaceships. Instead, this is a tactical-level combat game. A trained captain pilots each well-armed enemy starship. But deep in interstellar space, you, a battle-scarred veteran starship commander, expertly track the enemy and fire your weapons to save the galaxy. You must outmaneuver and then destroy as many as three enemy starships. After you issue a command to change course, launch a torpedo, and the like, the enemy issues a similar command. Then the computer executes these commands while the starships move through space, and you see ten "scans" of the resulting action. It's a battle of wits in a race against some very clever enemies.

### REVIEW COMMENTS

There's a lot of information to keep track of in this game, which you do via a command window and a damage report. This game is very slow and very intellectual. Its level of strategy will probably appeal to those patient souls who enjoy such pastimes as chess-by-mail.

The user manual is VERY GOOD.

---

### REQUIRES

ATARI BASIC Language Cartridge

---

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	24K	\$14.95	APX-10031
Diskette (810)	32K	\$14.95	APX-20031

## SPACE TREK

by Bob Polaro

Recommended for teenagers-adults/Written in BASIC



It's you against the Oralops! As captain of the U.S.S. Starship, your mission is to destroy the enemy Oralop spaceships that are threatening the galaxy. Of course, you have limited fuel and only so many stardates in which to complete your assignment. The galaxy is divided into 64 quadrants arranged in an eight-by-eight grid; each quadrant contains 64 sectors, also arranged in eight-by-eight grids. You guide your starship around the galaxy in search of Oralops by entering course coordinates and warp factors, which can be positive integers or decimal values. To see your position relative to the elusive Oralops, you can call for a long-range sensor scan, which shows the number of Oralops, starbases, and stars in each quadrant adjacent to your current position, or you can call for a galactic report, which summarizes these conditions for all the quadrants in the galaxy that border quadrants you've occupied. When you find an Oralop, you can release your photon torpedoes (if they're operable), or you can fire your phasers to deplete his shield power. If you miss, though, the Oralop fires back, reducing your defensive shield energy. Then you'll need to find a starbase to recharge your energy and restock your photon torpedoes. It's a tough battle to win, and to succeed you must chart your course precisely and weigh carefully the type and amount of weaponry you expend on each Oralop. And even then, fate can undermine your best efforts.

### REVIEW COMMENTS

This is a strategy game short on action and long on numerical and positional analysis. It's unlikely to interest children, but spacewar fans will probably enjoy this version of the classic computer Star Trek game.

The user manual is VERY GOOD.

---

### REQUIRES

ATARI BASIC Language Cartridge

---

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	24K	\$12.95	APX-10015
Diskette (810)	32K	\$12.95	APX-20015



## COMEDY DISKETTE

*Recommended for all ages/Written in BASIC*

For those who appreciate the lighter side of computers, we offer a melange of humor and whimsy. Lest we spoil the fun by telling too much, we merely hint here at what's in store for you. The subtitles are:

BURP — for those who yearn for a little variety in their READY prompt.

ACHTUNG — for those who can recall their fear of what could happen if they touched the wrong key on the keyboard.

SOCRATES — for those who can use a fresh supply of aphorisms to guide and comfort them in this complex age.

NERDQUIZ — for those who want to test their NERD quotient.

DOS.SIS — for those who take the DOS menu selections for granted.

FPFSQUAD — for those who can't face any more debugging sessions or hardware failures.

### REVIEW COMMENTS

These routines have something for most people. Some use clever graphics and sound effects, some stress textual humor, and some combine all three elements. However, the humor is somewhat juvenile and the routines might not appeal to everyone.

The user manual is VERY GOOD.

---

### REQUIRES

ATARI BASIC Language Cartridge

---

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	\$14.95	APX-20027

## PRESCHOOL GAMES

by Bob Polaro

*Recommended for ages 3–8/Written in BASIC*



This set of eight games for young children introduces some basic game concepts. Some resemble traditional children's games. Others develop such skills as pattern recognition and memory recall. Played with a Keyboard Controller, they are:

TIC-TAC-TOE — complete a row or column first and you win; play against the computer or against another player.

TOUCH-ME\* — try to reproduce a sequence of tones the computer plays; build up to an 8- or 16-note sequence.

PIANO — compose a tune and then have the computer play it back.

COUNTING — count the number of notes the computer plays, or enter a number and have the computer play a tune with that number of notes.

BATTLE — guess the secret location of your opponent's battleship before she guesses yours and you win; play against the computer or against another player.

ROCKSCIS — pick "rock," "scissors," or "paper," and then let the computer or another player try to guess your choice.

MUSICAL — after the computer plays musical chairs, match the position of the chair taken away with the corresponding button on your Keyboard Controller.

SOUNDBOX — press a button to produce a noise, such as chirping, exploding, drilling, or splashing.

### REVIEW COMMENTS

The graphics in these games aren't nearly as elaborate as the ATARI Computer can support.

The user manual is VERY GOOD. However, a child will usually need oral instructions from someone the first time through most of these games.

---

### REQUIRES

ATARI BASIC Language Cartridge  
ATARI Keyboard Controller(s)

---

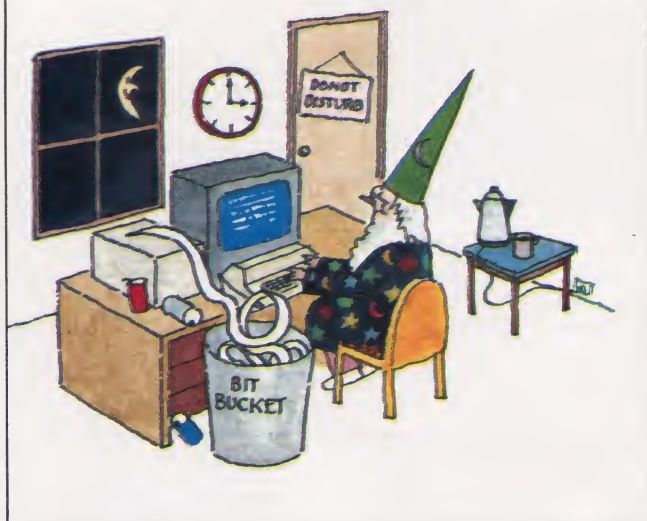
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	16K	\$12.95	APX-20006

\*TOUCH-ME is a trademark of Atari, Inc.



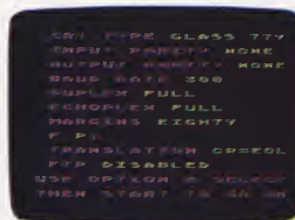
## System Software



## CHAMELEON CRT TERMINAL EMULATOR

by John Howard Palevich

Recommended for ages 14 and up/Written in BASIC and machine language



Convert your ATARI Computer into a computer terminal! For three terminal types, "Glass TTY," ADM-3A, and VT-52, CHAMELEON supports tabs, line feed, form feed, and a visual bell signal. For the ADM-3A and VT-52, it also supports cursor addressing and basic editing features. It doesn't support the special graphics character set of the VT-52 or some rarely used ADM-3A features.

CHAMELEON's major features are: (1) an 80-column, 24-line character display (displaying 40 columns at a time) with a lock cursor feature for automatic horizontal scrolling; (2) previous page buffer; (3) continuous transmission at baud rates of 75 to 4800 and non-continuous at 9600; (4) selectable input and output parity; (5) a BREAK signal; and (6) the full ASCII standard character set; (7) program uploading and downloading capability between your computer and a time-sharing system and between two ATARI Computers; and (8) the ability to dump the contents of the TV screen to a printer. Assembly language programmers with a 32K disk system and the Assembler Editor Cartridge can define new terminal types with CHAMELEON (the diskette version includes the source code).

The author invites written questions and comments.

### REVIEW COMMENTS

This is a versatile, well thought-out program. The wide screen emulation is great for large computer systems expecting an 80-column terminal. Your TV picture must be properly centered to handle the 40-column display. It has no autoreturn mode; the host computer must send a CR-LF signal.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
ATARI 830 Acoustic Modem or an RS-232C device  
ATARI 850 Interface Module

### OPTIONAL

ATARI printer or equivalent printer

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10058
Diskette (810)	24K	\$17.95	APX-20058



## EXTENDED fig-FORTH, REV. 2

by Patrick Mullarky

*Recommended for advanced programmers/Written in machine language*

For several reasons, the FORTH language has been gaining in popularity in recent years. Many advanced programmers find that FORTH is a good development tool for applications requiring high speed and low memory consumption, such as process control, systems software, and games. For these kinds of jobs, a FORTH program often runs 10 to 100 times faster than does a BASIC program to perform the same function. Because FORTH wasn't designed for floating point calculations (although they're possible and this version supports them), it isn't normally used for business applications, number crunching, and the like. However, it fills the gap nicely between BASIC and machine language programming. On the one hand, programming in FORTH is usually easier than programming in machine language, but FORTH programs don't run as fast as machine language programs do. On the other hand, programming in FORTH is sometimes slower than programming in BASIC, but FORTH programs run faster than BASIC programs do.

APX finally has a FORTH for sale! EXTENDED fig-FORTH is a full implementation of the standard FORTH as defined in the Forth Interest Group (fig) Implementation Guide. It roughly follows the 6502 Rev. 1.1 FORTH sources as supplied by the Forth Interest Group (P. O. Box 1105, San Carlos, CA 94070). Many changes were incorporated in adapting the sources to the ATARI Home Computer, but the definitions, operation, and user interfaces remain as described in the guide.

This version adds many definitions, including extended double-precision words, such as 2DUP, 2SWAP, D@, and D!. Also included in this version are the standard FORTH Editor, a complete Assembler for the 6502, a set of the ATARI Computer's Color/Graphic definitions, and a set of the ATARI Computer's floating-point definitions. A new definition, SAVE, lets you make a self-booting image of FORTH on a diskette and will include any new definitions you add. This feature lets you produce applications packages in volume easily. This version doesn't implement the definitions DLIST, MON, and TASK. It does implement the complete set of ATARI Computer Screen-Editor capabilities, making editing and changing FORTH programs simple and straightforward.

You should be familiar with FORTH to use EXTENDED fig-FORTH. Beginning FORTH programmers might want to use the primer, *Starting FORTH*, by Leo Brodie (Prentice-Hall) along with EXTENDED fig-FORTH. Screens are included for this purpose in Revision 2 (along with some bug fixes).

The author invites questions and comments by telephone and mail.

## REVIEW COMMENTS

This version does a good job of emulating the fig-FORTH model.

The toggling printer command is very convenient in that printing doesn't require special commands.

Upon booting, all error messages are in force. They're nicely formatted and easy to read.

This FORTH includes convenient extensions to allow for diskette backup. It also includes the DECOMP (decompile) word in the DEBUG package; DECOMP is a fairly sophisticated function not often found on microcomputer versions of FORTH.

It supports the RS232 port I/O. Two sound commands are included.

The user manual is GOOD, but it assumes familiarity with FORTH.

---

## REQUIRES

No required accessories

---

## OPTIONAL

All ATARI peripherals and accessories

## ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$39.95	APX-10029
Diskette (810)	24K	\$39.95	APX-20029





*Recommended for advanced programmers familiar with Pascal/Written in Pascal and assembly language*

Pascal is a structured-programming language suited for professional software developers, making it an excellent tool for developing and maintaining programs. ATARI Pascal is a multipass, pseudo-code compiler offering a flexible modular compilation scheme to permit easy transition from large, monolithic programming style to modular programming without extensive preplanning. This modular compilation scheme allows full access to procedures and variables in any module from any other module. Once the source program has been compiled, the Pascal Linker is used to bind individually compiled modules and their run-time libraries into an executable object program.

ATARI Pascal supports the International Standards Organization (ISO) draft standard (DPS/7185 as of 10/1/80), including variant records, sets, typed and text files, passing procedures and functions as parameters, GOTO out of a procedure, conformant arrays, and program parameters.

Although ATARI Pascal isn't completely compatible with UCSD Pascal™, both versions are written around a common core — Pascal as defined by Jensen and Wirth. The differences aren't as significant as, for example, the differences in various BASICs.

ATARI Pascal contains many enhancements, including:

- additional predefined scalars: BYTE, WORD, STRING
- additional operators on integers
- null strings
- ELSE on CASE statement
- external procedures
- absolute variables
- chaining to another program
- modular compilation

It also contains the following built-in procedures and functions:

- graphic, sound, and controller (Joystick and Paddle) functions comparable to those available in ATARI BASIC
- real and transcendental definitions
- move and fill procedures
- bit and byte manipulations
- file manipulation procedures
- heap management aids
- string manipulation
- address and sizeof functions

ATARI Pascal supports sequential and direct access files, text files, and block I/O. It has the same file handling capabilities as the ATARI Disk Operating System 2.0S.

Run-time error handling includes checks for divide by zero, heap overflow, string overflow, and range checking, as well as support for user-supplied routines.

ATARI Pascal has been tested, but not exhaustively. The ISO Test Suite has been successfully executed. Although errors are detected, the results might not be the same as in the ISO Test Suite. Testers agreed that ATARI Pascal is an excellent "second generation" product suited for software development. However, this product is seriously restricted owing to memory limitations and diskette capacity and performance.

As with other APX programs, ATARI does not support this product after the sale. However, we'll study all documented problems we receive for future revisions.

#### REVIEW COMMENTS

ATARI Pascal offers all the major features of Pascal. The product is for software developers with patience and persistence. Compilation is time consuming and not very forgiving about errors. Before buying ATARI Pascal, consider carefully its limited testing and support.

The user manual is GOOD for advanced Pascal programmers, but it's a reference only, not a tutorial. It describes ATARI Pascal's unique extensions.

#### REQUIRES

TWO ATARI 810 Disk Drives  
ATARI Program-Text Editor (APX-20075)

#### OPTIONAL

ATARI 825 80-Column Printer or equivalent printer

#### ORDER INFORMATION

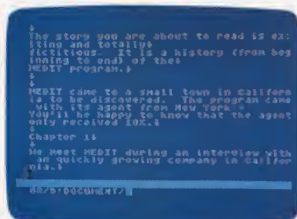
Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	48K	\$49.95	APX-20102





## ATARI PROGRAM-TEXT EDITOR\*

Recommended for teenagers—adults/Written in machine language



We're proud to offer this exceptionally well-designed, easy-to-use text editor. It's superb for revising source programs written in various programming languages (for example, ATARI BASIC, ATARI Pascal, or assembly language). An outstanding feature of the Program-Text Editor is its two mode approach of immediate text editing along with commands for searching the file and for manipulating both text strings and blocks of text. The editor uses a cursor for working with program text. You edit your text by moving a cursor around the 20 lines of text in the text window and then typing in your revisions. The cursor indicates your current position and where the next character will appear. (The cursor also lets you do automatic vertical scrolling forward and backward in your text.) You can position the cursor and revise text in any of the following ways:

- Move cursor left or right
- Move cursor up or down one physical line
- Move cursor to beginning or end of logical line
- Display previous or next screen of characters
- Insert new line(s)
- Tab to next tab stop
- Insert characters into text
- Delete characters to the left or right of the cursor
- Delete current logical line

It also has an auto-indent feature for repositioning the cursor to an automatic tab stop on the next logical line, which is useful when writing code in languages like Pascal.

The Program-Text Editor uses commands for more general text changes and for moving whole or partial files in and out of computer memory. The command window at the bottom of the display screen contains three lines in which you can retain a series of commands and use them repeatedly, as needed. Command mode offers these actions, among others ("n" refers to a number; "buffer" refers to the part of the file currently in computer memory; "file" refers to the entire file):

- Move cursor left or right n characters
- Move cursor up or down n logical lines
- Move cursor to start or end of logical line
- Move cursor to column n (range 1-200)
- Move cursor to beginning of buffer or file
- Move cursor to end of buffer or file

The editor supports files too large to fit into computer memory with commands to load in sections of the file. You also use command mode to search for specific strings. The editor accepts wild cards as substitutes for characters in search strings. It offers these search commands:

- Search for occurrence n of string 1 in buffer or file
- Search for string 1 in buffer or file and replace with string 2 n times
- Search for string 1 in buffer or file and replace upon verification with string 2 n times

Other commands let you insert and delete text strings. You can delete blocks of characters within a line, or you can delete the entire logical line. You can recover a deleted line with another command.

The editor also supports work with blocks of text. After you place markers immediately before and after the relevant text, you can use these commands:

- Copy the marked block to a new location
- Move the marked block to a new location (erasing its previous position)
- Delete the marked block
- Print the marked block to the printer
- Write the marked block to a specified diskette file

You can also load in a designated diskette file and insert it before the cursor.

Another outstanding feature of the Program-Text Editor is the ability to customize it to fit categories of files. When you specify a filename with a certain extender, the editor automatically uses the options you set instead of its normal settings. Settable options are:

- Set tabs and tab type (normal or expanding)
- Set tab display method
- Set carriage return display method
- Disengage auto-indentation feature
- Set maximum line length
- Set left and right screen margins
- Set screen color and luminance and character luminance

### REVIEW COMMENTS

This is the best program-text editor we've seen. Its human engineering is excellent. The macro capability of the command window combined with the cursor orientation of the text editing gives you the best of both worlds.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge (for customizer feature only)

### OPTIONAL

ATARI printer or equivalent printer

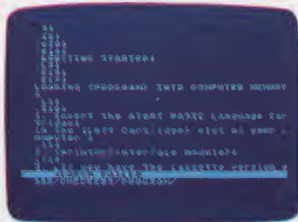
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	\$39.95	APX-20075

\*ATARI PROGRAM-TEXT EDITOR is a trademark of Atari, Inc.



## WORD PROCESSING DISKETTE



This diskette combines the Program-Text Editor and the text formatting program available through APX. Used together, they constitute a reasonable word processing system. The programs are:

TEXT FORMATTER (FORMS) (APX-20002)  
ATARI PROGRAM-TEXT EDITOR (APX-20075)

\*Please see the individual program descriptions for information about program contents and the minimum RAM and accessories needed to use these programs.

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	*	\$49.95	APX-20076

## BASIC UTILITY DISKETTE

This diskette combines the following programs on one diskette:

BASIC Program Compressor (MASHER) (APX-20008)  
BASIC Cross-reference Utility (XREF) (APX-20009)  
Ultimate Renumber Utility (APX-20086)  
Variable Changer (APX-20012)

\*Please see the individual program descriptions for information about program contents and the minimum RAM and accessories needed to use these programs.

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	*	\$42.70	APX-20036

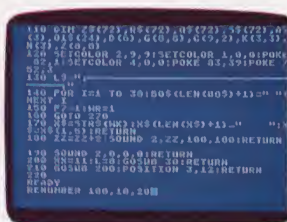


## System Software

## ULTIMATE RENUMBER UTILITY

by Justin E. and Douglas J. Wilder

Recommended for BASIC programmers/Written in machine language



At last we can offer you a *fast*, convenient BASIC renumbering routine! ULTIMATE RENUMBER UTILITY operates directly on your BASIC program in memory and is very fast. It has no lines of BASIC language to appear with yours when you list or save your program. It's unaffected by the NEW command or by pressing the SYSTEM RESET key. And it reduces the memory area for your BASIC program by only 600 bytes.

You load RENUMBER into computer memory at the beginning of your computer session and load in your BASIC program whenever you wish. To renumber your program, you type one statement consisting of the command RENUMBER (or REN.) and three parameters: beginning line number, new starting line number, and increment value. You enter this information just like any other immediate mode BASIC command; no USR calls are required. If you accept the program's default values, then you just type REN. and off it goes!

RENUMBER changes not only numbers at the beginning of each line, but also all references to these numbers within any program statement to correspond to the new line number. After it completes the renumbering process, the program displays line numbers of code containing expressions and variables used as line number references, with a reminder to check these lines.

The authors invite written questions and comments.

### REVIEW COMMENTS

This program has all the important features of a good renumbering routine. The use of the command RENUMBER is very attractive.

Block moves of program statements are possible, but the process is lengthy, requiring writing an intermediate file to diskette or cassette.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

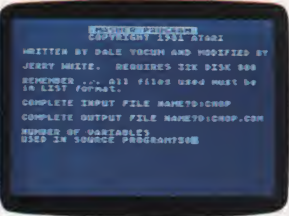
Media	RAM	Price	Order No.
Cassette (410)	8K	\$17.95	APX-10086
Diskette (810)	16K	\$17.95	APX-20086



**BASIC PROGRAM COMPRESSOR (MASHER)**

by Dale Yocum and modified by Jerry White

Recommended for BASIC programmers/Written in BASIC



If you've ever worked for hours on a program just to have it run out of memory, this utility is for you. MASHER compresses your BASIC programs into as little memory as possible. You can tell MASHER the name of your program and how many variables you've used (the BASIC Cross-Reference Utility or the Variable Changer, described elsewhere in this section, tells you this if you don't feel like counting). Then MASHER (1) removes REMark statements, (2) converts frequently used constants to variables, and (3) packs together multiple short lines to form longer ones. Depending on how compressed your initial code is, MASHER can reduce the required RAM by as much as 50 percent. Used wisely, it can save you a lot of work and RAM.

MASHER reserves lines 0-9 and variable names Q0-Q999 for its own use.

**REVIEW COMMENTS**

MASHER not only makes your programs smaller, but also makes them run faster.

Be prepared to wait a *long* time for MASHER to convert a program. Conversions can take anywhere from a few minutes to many hours, depending on the length of your program.

MASHER can make mistakes. You might find that some compressed programs will require "touching up."

A MASHed program will be very hard to read, because all REMarks have been removed and lines have been compressed. Therefore, you'll probably want to MASH a program only after you've debugged it.

The user manual is VERY GOOD.

**REQUIRES**

ATARI BASIC Language Cartridge

**OPTIONAL**

BASIC CROSS-REFERENCE UTILITY (APX-20009)  
VARIABLE CHANGER (APX-20012)

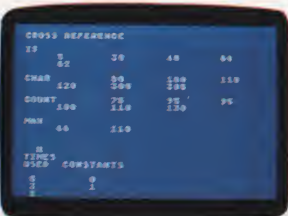
**ORDER INFORMATION**

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	32K	\$14.95	APX-20008

**BASIC CROSS-REFERENCE UTILITY (XREF)**

by Lane Winner

Recommended for BASIC programmers/Written in BASIC



XREF is a utility program that gives you some important information about your BASIC program. First, it tells you the number of variables you've used, which is helpful in large programs, where you might be approaching the 128-variable limit. (It's also necessary information for running the MASHER program, described elsewhere in this section.) Second, it lists the names of all your variables. Third, and most important, it tells you the lines in which you've used these variables. This information can be valuable for debugging complex BASIC programs.

**REVIEW COMMENTS**

XREF is a handy utility to have in your library. In several instances, it has saved us hours of frustrating debugging. It's also useful when trying to squeeze out seldom-used variables because it's like a program road map.

XREF's error trapping could be better. For example, it might stop and display a BASIC error if it doesn't like your input or your file. It's also rather slow — a large program might take 15 minutes to cross-reference.

For large programs, a printer is almost a necessity.

The user manual is VERY GOOD.

**REQUIRES**

ATARI BASIC Language Cartridge

**OPTIONAL**

ATARI printer or equivalent printer

**ORDER INFORMATION**

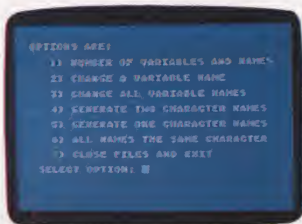
Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	40K	\$14.95	APX-20009



## VARIABLE CHANGER

by Lane Winner

Recommended for advanced BASIC programmers/Written in BASIC



How often have you typed in a complete BASIC program and later wished you'd called a variable by a different name? Have you ever run out of RAM because of lengthy variable names? Have you wanted to protect your program at times from being listed? If so, consider this utility. VARIABLE CHANGER changes a variable's name throughout your BASIC program by modifying your program's internal symbol table. You can change particular variable names, or you can have the utility change them all to the shortest possible length. This latter option helps compress a program into the smallest possible space. (This is a good companion program to MASHER, described elsewhere in this section.) To protect your program from curious eyes, you can also use this utility to convert all your variable names to the same non-printing character. Because the BASIC interpreter has already translated your variable names to an internal form, your program will still run, but no one will be able to read it by using the LIST command.

### REVIEW COMMENTS

This program is quite fast, because it takes advantage of the unique structure of ATARI BASIC by modifying the names in the symbol table associated with a tokenized BASIC program instead of by modifying the actual program code.

The power of this program makes it unsuitable for a novice programmer. You can make a real mess of your program if you're not careful.

Trying to expand variable names to be much longer than they were originally might cause some program statements to exceed the maximum logical line length permitted by the Screen Editor, and you won't be able to edit such lines in the future because the Screen Editor will truncate them.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

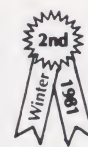
Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	24K	\$14.95	APX-20012

## System Software

## INSTEDIT

by Sheldon Leemon

Recommended for programmers/Written in BASIC and machine language



The ATARI Computer's ability to change character sets lets you use foreign language alphabets and special symbols easily. You can also develop graphics characters to replace the plot-and-draw method of generating high-resolution graphics. Drawing a picture then becomes as easy as printing a string of characters. Animation of these figures is possible just by alternating the character set in use. INSTEDIT can help you take advantage of these advanced graphics capabilities.

You use a Joystick Controller to edit a character in an eight-by-eight matrix. INSTEDIT simultaneously displays the modified character in all six graphics modes. To experiment with combining characters, merging them to create larger objects, you can use INSTEDIT's memo pad mode, which lets you display character sequences in the lower half of the screen in any graphics mode. You can even create objects for use with the ATARI Computer's system of player missile graphics.

In addition to point-by-point character editing, you can change the whole character at once. You can erase it, restore its original shape, invert letter and background color, copy the form of another letter, or shift the position of the character within the matrix. You can store a character set for further work. Once you're satisfied with a set, INSTEDIT can write all or part of your character data to a diskette file or to a cassette in the form of BASIC DATA statements, assembler source code using the .BYTE directive, or even an entire BASIC subroutine for incorporating your new character set into an existing program.

The author invites written questions and comments.

### REVIEW COMMENTS

Making good use of the ATARI Computer's graphics capabilities, INSTEDIT is the best character set editor we've seen.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
One ATARI Joystick Controller

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10060
Diskette (810)	24K	\$17.95	APX-20060

### Microsoft BASIC version

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	40K	\$17.95	APX-20113



## DISK FIXER (FIX), REV. 2

by Mike Ekberg

*Recommended for advanced systems programmers/Written in machine language*



FIX lets an advanced programmer get directly at several important areas of a diskette. Depending on the circumstances, FIX can sometimes help you recover some or all of your files from a "crashed" diskette. FIX lets you: (1) display directory entries, so that you know the exact entry for each file; (2) modify directory entries, so that you can control directory information; (3) trace sector chains through a file, looking for the end of the file or for a bad sector, so that you can verify the structure of a file; (4) check the allocation map, so that you can recover misallocated sectors; (5) modify sector links, so that you can control the file number, sector byte count, and forward sector pointer for any sector on the diskette; and (6) edit actual sector data. This utility program is for an advanced systems programmer only. Its use requires a detailed understanding of disk structure. Revision 2 lets you look at and edit sector data.

### REVIEW COMMENTS

FIX has been invaluable on several occasions in salvaging a destroyed diskette. Styled after the ATARI DOS menu structure, it has a fairly good user interface.

You can do more harm than good with this powerful utility if you don't know what you're doing. It's a tool for an advanced user only.

The user manual is GOOD.

---

### REQUIRES

No required accessories

---

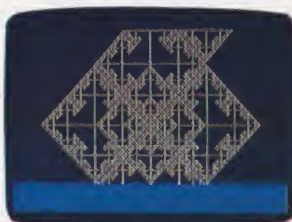
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	24K	\$17.95	APX-20010

## EXTENDED WSFN

by Harry Stewart

*Recommended for programmers/Written in machine language*



Do you know someone who's curious about your ATARI 400/800 Computer but has no programming knowledge to call on to try out your system? This program might be the answer. WSFN (Which Stands For Nothing) is an educational graphics language developed for teaching programming concepts to beginners. Picture a small robot turtle holding a pen in his mouth and sitting in the middle of your TV screen. Now imagine you can command the turtle to do such things as move, turn, and raise and lower his pen. That's what WSFN is all about. WSFN programs consist of strings of one-letter commands like "F" for "forward" and "L" for "left turn." With simple instructions, users can write such standard programming structures as loops and sub-routines. This version of WSFN is greatly extended compared to the original language, and it contains many advanced debugging, graphics, joystick, and mass storage features. Although you can do some fairly advanced graphics with WSFN, it's meant to be a beginner's language. Also, because it's strictly a graphical system, it isn't suitable for developing applications programs.

### REVIEW COMMENTS

This is a very comprehensive version of WSFN, with many advanced features. It can be a lot of fun to use and the graphics it generates can be dazzling. Also, this language is fast, executing faster than BASIC in most cases.

Because of time and staffing restrictions, this program hasn't undergone the extensive testing that any new language should. Some users may find WSFN's command language a bit cryptic at first.

The user manual is VERY GOOD and it's complete, but it still contains some editing corrections.

---

### REQUIRES

No required accessories

---

### OPTIONAL

ATARI Joystick Controller

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$19.95	APX-10026
Diskette (810)	24K	\$19.95	APX-20026



## SOUND EDITOR

by Bob Smith

Recommended for programmers/Written in BASIC



SOUND EDITOR helps you create short sounds, such as clangs, croaks, rattles, and other such nonsense. It's not appropriate for developing tunes, jingles, or sounds lasting longer than one second. SOUND EDITOR uses a graphical approach. It divides a one-second sound into 20 segments. Using a Joystick Controller, you specify the volume, frequency, and distortion in each segment. The utility displays a plot of these parameters, one at a time. You can play back your new sound at any time and then refine it. And you can store your sounds on diskette or cassette and recall them later. You can edit two of the four sound channels with this program and play them simultaneously. Then you can incorporate the finished sounds into your BASIC or machine language programs.

### REVIEW COMMENTS

SOUND EDITOR offers a lot of potential for the interested hobbyist. As utilities go, this one is fun. Its graphical presentation of the sound parameters makes it easy to understand what comprises a sound.

The program limits you to only two sound channels at a time. For most sounds, however, this isn't a problem.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
ATARI Joystick Controller

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	16K	\$17.95	APX-10018
Diskette (810)	24K	\$17.95	APX-20018

## INSOMNIA (A SOUND EDITOR)

by Bob Fraser

Recommended for BASIC programmers/Written in BASIC and machine language



This sound editing package gives you an easy and enjoyable method for generating a complex (four-voice) sound or a few simple sounds lasting up to four seconds. You can install these sounds in your BASIC programs through a machine language subroutine included in INSOMNIA that lets your program run unimpeded by the sounds. Thus, your program isn't slowed down by its sounds, but it can turn these sounds on and off at will.

You create sounds by plotting points in three windows of a screen display: frequency, volume, and distortion. These parameters correspond to the last three parameters in the SOUND statement of ATARI BASIC. You select the sound parameters and plot your points using a Joystick Controller, a Paddle Controller, or both. Working with any of the ATARI Computer's four sound generators, you immediately hear the changed sound each time you plot a point. You can play your sound either continuously or once only, and you can isolate one voice for modification or you can combine voices to hear the overall effect. INSOMNIA also can produce very low and very high frequency sounds normally unattainable with conventional sound generating methods. You can save and recall sounds on diskette for further revision.

### REVIEW COMMENTS

This well-designed program is very useful for learning how changing one parameter effects the resulting sound. INSOMNIA supports all four voices, creates sounds as long as four seconds, and doesn't tie up machine time while generating the sound in your program. SOUND EDITOR (APX-10018 and APX-20018) supports only two of the four voice channels, creates sounds of one second or less, and uses machine time when generating the sound.

INSOMNIA can load four voices into RAM only once, when your program loads in. Thus, you're limited as to sound complexity or variability within a program.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
One ATARI Joystick Controller  
One ATARI Paddle Controller

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	24K	\$17.95	APX-20073



## DSEMBLER

by Volker Multthopp

*Recommended for assembly language programmers/Written in BASIC and machine language*



If you write machine language subroutines as part of ATARI BASIC programs, you know how cumbersome debugging your assembler routines can be. Here's a tool written in BASIC that's useful for studying and debugging 6502 machine language code. With DSEMBLER you can disassemble any of the valid 6502 machine code in memory and display or print the results in a five-field format: (1) the location of the disassembled instruction; (2) the hex value of each byte of the instruction; (3) if you labeled the location while debugging the code, the label name (i.e., not necessarily the label you assigned as you wrote the code); (4) the op-code for the instruction; and (5) any associated operand using standard 6502 format (if you labeled an operand address while debugging, the label name will appear instead of that address).

Using DSEMBLER, you can also: (1) convert integers between 0 and 65535 to hexadecimal and vice versa; (2) regenerate labels, rename existing labels, and remove an existing label (DSEMBLER can create as many as 254, two-to-eight character labels); (3) display or print a list of label values and their names; (4) store a file of labels to diskette or cassette and recall them; (5) load your machine code quickly into memory; (6) display "pages" of memory for quick scanning; (7) jump to a machine language subroutine with the 6502 X, Y, and A registers set as you wish; (8) search any part of memory for any specified byte sequence, using wild cards for byte values if you wish; and (9) write your own operation as an option on DSEMBLER's menu.

The author invites questions and comments by telephone.

### REVIEW COMMENTS

DSEMBLER is a useful, easy-to-use debugging tool for programmers writing assembler routines to run with ATARI BASIC programs.

The user manual is GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### OPTIONAL

ATARI printer or equivalent printer

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	24K	\$17.95	APX-10065
Diskette (810)	32K	\$17.95	APX-20065

## SUPERSORT, REV. 3

by Bob Fraser

*Recommended for intermediate-advanced BASIC programmers/Written in machine language*

SUPERSORT is a high-speed sorting routine you call from your BASIC programs. It can sort 1,000 thirty-byte names in less than ten seconds and 1,000 one-byte items in less than two seconds! Depending on your computer's memory size, SUPERSORT can sort as many as 10,000 records. A record is limited to 256 characters. Any data field can be a sort key and SUPERSORT can sort on as many as 89 keys. SUPERSORT loads itself into RAM as an AUTORUN.SYS file when you boot a diskette containing SUPERSORT. You run your BASIC program as usual, storing in one long string the items you want sorted. You POKE in your record and key lengths and execute a USR function. SUPERSORT sorts the entire string in ascending order by your specified key(s). Your BASIC program then determines what is done to the sorted data.

Installing itself below BASIC at boot time, SUPERSORT uses page 6 in memory as a scratch pad and about 1000 bytes of RAM for itself. This program combines C. Hoare's QUICKSORT with a standard insertion sort. The algorithm is described in Donald Knuth's *Art of Computer Programming*, vol. 3, p. 114. The diskette has the assembler editor source code to allow you to modify the program to fit your needs.

### REVIEW COMMENTS

This utility is designed for use only with BASIC. With some work, you can modify it for other uses. SUPERSORT does no error checking, so you must write your calling program carefully; otherwise, it will sort all of memory, including your program. Because it uses the AUTORUN.SYS feature, using the RS-232 ports of an ATARI 850 Interface Module at the same time you use SUPERSORT can be awkward.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### OPTIONAL

ATARI Assembler Editor Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	24K	\$17.95	APX-20030

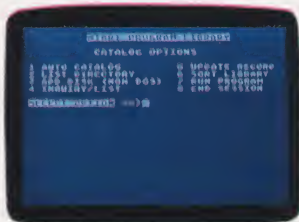




## DISKETTE LIBRARIAN

by Ronald & Lynn Marcuse

Recommended for teenagers-adults/Written in BASIC and machine language



"Why doesn't someone write an on-line cataloging system to organize my diskette files," you grumble as you search your stack for the game your friends are impatiently waiting to play. Help is here! DISKETTE LIBRARIAN not only catalogs several pieces of information about your diskette files, but also updates entries, searches and sorts on any unit of information, and displays or prints the formatted catalog. In addition, DISKETTE LIBRARIAN can automatically run a BASIC program stored in SAVE format after it locates the program and prompts you to insert the referenced diskette. This feature can make your computer easier for beginners to use.

A series of menus guide you through these activities. You set up your catalog by first entering a volume number for each diskette (you must leave one sector free on each diskette to store this internal label). Then, as each file name on a diskette displays, you add the following information in response to prompts: (1) description, (2) file type, (3) program source, and (4) date. DISKETTE LIBRARIAN supports both automatic and manual file updating. You can display or print complete or partial catalogs and complete or partial entries that are sorted or unsorted.

The authors invite questions and comments by telephone.

### REVIEW COMMENTS

The assembly sort routine makes for very fast file sorts.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### OPTIONAL

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

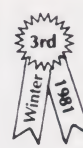
### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	24K	\$17.95	APX-20056

## T: A TEXT DISPLAY DEVICE

by Joseph J. Wrobel

Recommended for BASIC programmers/Written in machine language



Remember your frustration when you tried to put all that text on the screen and found 40 characters cramping your style? What about the less-than-satisfactory results when you tried to label some graphs? T makes intermixing text and graphics on the same line not only possible but easy. You'll have more freedom and control over what you can put on a line with this autoloading, 510-byte routine than you have using the standard technique of doing display list modifications.

Rather than working through the display list feature (although T is compatible with a modified display list), T defines a new device, T:, and uses it like P: or any other input/output device. Printing to T: plots characters — text and graphics — to the screen, the character size depending on the current graphics mode. You use the standard ATARI BASIC I/O commands with this new device name (no PEEKs or POKEs), so you don't need to learn a different set of commands. T also has special operation XIO commands for setting left and right margins, choosing from three character widths (in half width, up to 80 characters can display on a line), altering the character base pointer for user-defined character sets, and offsetting text for printing subscripts, superscripts, or proportional spacing. You can use T with any of the standard BASIC and hardware graphics modes (both full and split screen), with as many colors as are normally available in each mode. In all modes, T prints the full ATASCII character set in both normal and inverse mode. The program supports random screen printing as well as sequential line printing.

The author invites comments and questions by mail.

### REVIEW COMMENTS

T is a slick solution to mixing text and graphics modes on the same line. The 80-character display mode is really useful only on black-and-white monitors. You can obtain an 80-column mode only through your own programs.

The user manual is GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	8K	\$17.95	APX-10067
Diskette (810)	16K	\$17.95	APX-20067



## BLIS

by Image Marketing Corporation

Recommended for BASIC programmers/Written in BASIC



BLIS prints your ATARI BASIC programs in a clear, easy-to-follow format. You can print each routine on a different page, if you wish. In addition, it indents logical units like FOR/NEXT loops and IF/THEN statements. It can also print your REMark statements in boldface, or it can print them as titles at the top of the page. If your program contains multiple statements per line, BLIS will print each statement separately, indenting as appropriate. All these features make debugging easier, since you can clearly see program blocks and subordination. These features also result in a format that is suitable for publication. Other niceties are running top titles, page numbers, use of the condensed character set to preserve the visual logic even with long statements, and conversion of nonprinting characters within strings to printed representations. To use BLIS, you simply answer a series of prompted questions that set your options. These include starting and ending page numbers (in case you want to print only part of your program listing), whether you're using continuous paper or separate sheets, the name of your program file, and whether you want to print a running top title.

The author invites written questions and comments.

### REVIEW COMMENTS

The formatted program listings produced with BLIS are very pleasing and helpful.

The error trapping could be better.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge  
ATARI 825 80-Column Printer only

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	16K	\$17.95	APX-20049

## LOAD 'N GO

by Brad Stewart

Recommended for BASIC programmers/Written in BASIC and machine language



Would you like to encourage the non-programmers in your house to use your BASIC programs? One way is to eliminate the initial steps required to load and start a program, so that they need only insert a diskette and power up the computer. Would you like to streamline the initialization steps you go through when you power up? With LOAD 'N GO you can automatically start a BASIC program whenever you power up your computer. It's like custom-tailoring your computer to a single application, except you can custom tailor it to as many applications as you wish. To set up the automatic program execution, you run LOAD 'N GO once. LOAD 'N GO asks you for a RUN or LOAD command for the BASIC program you want to autoexecute. It then creates an AUTORUN.SYS file that automatically starts your program whenever you turn on your computer with the program diskette inserted in a disk drive.

LOAD 'N GO is very simple to use, and its applications are limited only by your imagination.

### REVIEW COMMENTS

This program has only one function — to autoexecute BASIC programs, but it's a powerful utility that took some time to write.

You can't use LOAD 'N GO with a diskette containing an AUTORUN.SYS file, since LOAD 'N GO will replace the file with its own AUTORUN.SYS file.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	16K	\$12.95	APX-20037



## KEYPAD CONTROLLER

by Thomas D. Newton



*Recommended for programmers/Written in BASIC and machine language*

The keyboard layout on the ATARI Home Computer is ideal for many uses. However, for activities involving entering lots of numbers, a numeric keypad would probably serve you better. Now you can have the best of both worlds — the keyboard's typewriter layout and separate keypad layout using a pair of Keyboard Controllers. With KEYPAD CONTROLLER, not only can you enter numbers in keypad fashion, but you can also do program editing. You use one controller to enter numbers, periods, and commas, and the other controller to enter arithmetic operators (+, -, \*, /, and ^) and to move the cursor around the screen. You can move the cursor up, down, left, and right, and you can insert and delete characters.

KEYPAD CONTROLLER has another function programmers will appreciate. You can use it to slow down program displays on your TV screen.

This automatically loaded program is usable with both the ATARI BASIC Language Cartridge and the Assembler Editor Cartridge. Once you load KEYPAD CONTROLLER into computer memory, it remains there until you turn off your computer, but you activate and deactivate the controllers as needed by pressing three keys.

The author invites written questions and comments.

### REVIEW COMMENTS

If you want to modify the interpretation of the keys on the controller, you can do so with a BASIC program provided by the author.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge or Assembler Editor Cartridge  
A pair of ATARI Keyboard Controllers

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	8K	\$12.95	APX-10106
Diskette (810)	24K	\$12.95	APX-20106

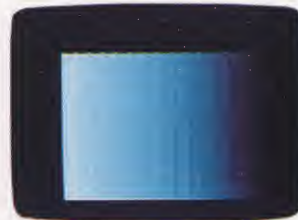
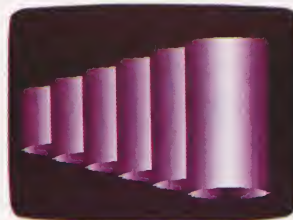


## System Software

## GTIA DEMONSTRATION DISKETTE



*Recommended for BASIC programmers /Written in BASIC*



Load this diskette into your ATARI Home Computer, turn out the lights, and enjoy spectacular whirling shapes in exquisite colors! This set of more than twenty BASIC programs shows off the extraordinary graphics power of the new GTIA chip. This chip supports the nine graphics modes of the CTIA chip, plus three additional modes, which are accessible through ATARI BASIC. The demonstration programs are packed with motion, such as rotating barrels, whirlpools, multiple circling rings, marquee and barber pole effects, shooting rays, and moving corridors. Stunning color blending and shading highlight brass rings, cones, and other designs. A rainbow of colors rotate on designs like the ATARI Home Computer logo, a beachball, and cylinders. Funnels, cones, melons, spheres, and other designs dazzle you from several perspectives.

To determine whether your ATARI Home Computer already has the GTIA chip and for information about how to have your system upgraded if it doesn't have this chip, call the Home Computer Customer Service number, 800/538-8547 (or 800/672-1430 within California).

### REVIEW COMMENTS

These demos really show off the GTIA's ability to produce high-resolution pictures with perspective and color shading. Some take several minutes to complete, but it's worth the wait.

The user instructions describe only how to load the programs and a little about what to look for in each design. To understand how the effects are achieved, you'll need to dig into the BASIC code yourself.

### REQUIRES

ATARI BASIC Language Cartridge  
ATARI 400/800 Home Computer with GTIA chip installed

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	24K	\$14.95	APX-20104



## SPEED-O-DISK

by Jubal Ragsdale and Dave Henry

Recommended for ATARI 810 Disk Drive owners/Written in BASIC



We don't like to talk about it, but occasionally an ATARI 810 Disk Drive will drift from its normal speed. If you store information on diskettes in a drive that's running more slowly or faster than the normal speed (within a range), you'll end up with diskettes that disk drives operating at normal speed can't handle. One indication that your drive's speed might be off is that you get frequent Error 144 (Device Done Error — invalid "done" byte) or Error 138 (Device Timeout) messages. SPEED-O-DISK is a utility to measure the speed of your drive. The program displays disk speed on your TV screen and it updates the information every five seconds.

Although the instructions describe how to adjust your disk drive if it's not running at proper speed, *you can void your warranty* by attempting to adjust the drive yourself rather than taking it to an authorized ATARI Service Center for adjustment. Neither ATARI nor APX assumes responsibility for the accuracy of these instructions or for the consequences to your disk drive if you attempt to adjust the speed based on the instructions. We recommend, instead, that you take your drive to your nearest authorized ATARI Service Center for adjustment.

The authors invite questions and comments by mail and telephone.

### REVIEW COMMENTS

As with any diskette speed program, an incorrect speed occasionally appears when a disk retry occurs briefly.

The user manual is GOOD.

### REQUIRES

No required accessories

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	16K	\$17.95	APX-20109

## DEVELOPER'S DISKETTE

Recommended for advanced programmers/Written in BASIC and machine language

This diskette contains preliminary versions of a few APX utilities, together with some demonstration and miscellaneous routines. Many of the programs contain rough spots. Because we're offering the diskette unsupported and because the user manual is very sketchy, you're pretty much on your own. All but the most advanced programmers will have difficulty understanding the contents of this diskette. Software developers who have attended ATARI's development seminars already have the routines on this diskette.

The contents of this diskette are subject to change without notice.

### REVIEW COMMENTS

Some of these programs contain significant bugs.

The user manual is POOR.

### REQUIRES

ATARI BASIC Language Cartridge

### OPTIONAL

ATARI 825 80-Column Printer

One ATARI Joystick Controller

Assembler Editor Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	40K	\$21.95	APX-20034



## BASIC RENUMBER UTILITY (RENUM)

Recommended for BASIC programmers/Written in BASIC



Here is a utility to renumber your BASIC programs. RENUM renumbers your statements using the increment value you specify, and it adjusts your GOTO, IF/THEN, GOSUB, and other statements to reflect the new line numbers. RENUM asks you for your new starting line number, the range of lines you want renumbered, and your desired increment value. If you don't care, it supplies default values. You can also use RENUM to move blocks of code from one area of your program to another.

### REVIEW COMMENTS

RENUM warns you when it encounters statements like GOTO X where "X" is a variable, so that you can check the affected new line numbers.

The main problems with RENUM are speed and convenience. First, you must save your program on diskette, using the LIST command. Then RENUM uses that file to create a new file, also in LIST format. Because RENUM is written in BASIC, this process can take quite a while, perhaps 15 minutes for a long program. The second problem is its weak user interface in such areas as error trapping and prompts.

The user manual is VERY GOOD.

### REQUIRES

ATARI BASIC Language Cartridge

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	24K	\$14.95	APX-20011

## SCREEN DUMP UTILITY

Recommended for programmers/Written in machine language

These three programs let you print copies of screen displays. You can copy text to any ATARI printer or equivalent printer. You can copy text and graphics characters to an ATARI 822 Thermal Printer or a Centronics 739 Graphics Printer. An AUTORUN.SYS file automatically loads a screen dump program into memory. You then enter or load in an applications program. Whenever you want a printed copy of a display screen, you simply type CONTROL-P. You can change several of the graphics screen dump programs' parameters, including increasing the size or proportion of the printed image, printing black on white or white on black, printing in grey scale or in black and white, and letting the grey scale represent either luminance or color. You can also call these programs from your applications programs with a USR function.

### REVIEW COMMENTS

You can print graphics *only* from an ATARI 822 Printer or a Centronics 739 Printer. This program won't print graphics from any other printer.

The minimum-scale dump to an ATARI 822 Thermal Printer occurs as two passes, the first pass printing the leftmost two-thirds of the screen and the second pass printing the remaining third underneath. The procedure takes about 15 minutes. You then cut and tape the strips together to form a complete display screen. The print quality on this printer isn't the best, but it's usable.

These programs install themselves below user memory at boot time, moving the lower memory boundary up. Therefore, programs in machine language that rely on certain absolute memory locations being available might not work with these screen dump programs. Also, programs using player missile graphics must have been designed to run with this program.

The user manual is GOOD.

### REQUIRES

Printer (see program description)

### ORDER INFORMATION

Media	RAM	Price	Order No.
Cassette (410)	N/A		
Diskette (810)	24K	\$12.95	APX-20045



## 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)

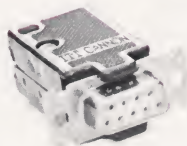
*DE RE ATARI* tells you everything you want to know about the ATARI 400/800 Home Computer, but were afraid to ask. It's an excellent resource and training text for professional programmers who use ATARI Home Computers and for advanced hobbyists who understand ATARI BASIC and assembly language. Neither 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."





## DE-9S WITH DE 110963-1 SHELL (controller plug)

\$6.25 (APX-90001)

This connector is suitable for the front joystick ports of the ATARI 400/800 Computers. Because you can program these ports for both 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

\$2.49 (APX-90002)

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

\$9.95 (APX-90003)

You can use this connector, custom-designed for ATARI Home Computers, to build your own interface cables or devices.



## 13-PIN I/O SOCKET

\$4.95 (APX-90004)

This 13-pin, board-mounted connector with right-angle pins is the connector used inside ATARI Computers and peripherals. You can use it to build your own peripherals, extension cables, and interfaces.



## DA-15P WITH DA110963-2 SHELL (850 printer plug)

\$5.95 (APX-90005)

Use this 15-pin, male connector to connect your ATARI 850 Interface Module to a compatible parallel printer. These connectors have solder-on, gold-plated pins in a Nylon insulator.



## DE-9P WITH DE110963-1 SHELL (850 serial plug)

\$5.49 (APX-90006)

Use this 9-pin, male connector to connect your ATARI 850 Interface Module to external RS-232 or current-loop devices. These connectors have solder-on, gold-plated pins in a Nylon insulator.



# Order Form

Please read all the ordering information  
before filling out this form.



ATARI®  
PROGRAM  
EXCHANGE

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State/Country \_\_\_\_\_ Zip/Mail Code \_\_\_\_\_

Phone (       ) \_\_\_\_\_

Please indicate the amount  
of RAM you have

\_\_\_\_\_ K

(alternate shipment method if UPS does not deliver in your area)

Qty	Order Number	Description	Price Each	Total Each
	APX			
	APX			
	APX			
	APX			
	APX			
	APX			
	APX			
	APX			
	APX			

ATARI PROGRAM EXCHANGE  
P.O. BOX 427  
155 MOFFETT PARK DRIVE  
SUNNYVALE, CA 94086

Subtotal of all items ordered	
California resident add 6.5% sales tax	
Shipping & handling charge	\$2.50
<b>TOTAL</b>	



Send all orders  
to this address

## Toll-Free Numbers for Credit Card Orders

Within California 800/672-1850  
Elsewhere in Continental U.S.A.  
800/538-1862

Or call direct at 408/745-5535

### Payment—

- ☐ Check/Money Order
- ☐ VISA
- ☐ Master Card

**Minimum order  
\$10.00, plus  
shipping and  
handling**

Interbank No: \_\_\_\_\_  
Credit card account no. \_\_\_\_\_

Credit card expiration date \_\_\_\_\_  
Signature (as appears on card) \_\_\_\_\_



# Ordering Information

**APX products only.** The ATARI Program Exchange handles orders only for the items described in this catalog. For all standard ATARI Home Computer products, including any software, hardware, or documentation mentioned in this catalog, see your local ATARI Computer retailer.

**\$10 minimum order, plus shipping and handling charge.** We'll fill orders of \$10.00 or more. Please add \$2.50 to your order to cover shipping and handling.

**Mail orders.** To order by mail, fill out an order form and mail it, together with your payment, to the ATARI Program Exchange, P. O. Box 427, 155 Moffett Park Drive, Sunnyvale, CA 94086.

**Phone orders.** For faster service, phone in credit card orders, using our toll-free number, 800/538-1862 (or 800/672-1850 for calls within California). You can also call us at 408/745-5535.

**Payment by check, money order, VISA, or Master Card.** Your payment must accompany all mail orders. Enclose a check or money order, or charge your order to your VISA or Master Card account. Include the \$2.50 shipping and handling charge in your payment, and California residents need to add 6.5% sales tax to the merchandise total, exclusive of shipping and handling.

**No C.O.D. or purchase orders.** We regret that we cannot accept orders paid by C.O.D. or by a purchase order.

**Foreign orders.** At present, we can handle orders only from the United States. Contact your ATARI supplier for more information.

**Delivery to P. O. Box numbers.** We normally ship your order by United Parcel Service (UPS). Because UPS doesn't deliver to P. O. Box numbers, please use a street address on your order form.

**Alternate shipping method.** Please indicate an alternate method of shipment if UPS doesn't deliver to your area.

**DISCLAIMER OF WARRANTY AND LIABILITY ON COMPUTER PROGRAMS.** Neither Atari, Inc. ("ATARI"), nor its software suppliers, distributors, or retailers make any express or implied warranty of any kind with respect to this computer software program and/or material, including, but not limited to, warranties of merchantability and fitness for a particular purpose. This computer program software and/or material is distributed solely on an "as is" basis. The entire risk as to the quality and performance of such programs is with the purchaser. Purchaser accepts and uses this computer program software and/or material upon his/her own inspection of the computer software program and/or material, without reliance upon any representation or description concerning the computer program software and/or material. Should the computer program software and/or material prove defective, purchaser and not ATARI, its software suppliers, distributors, or retailers, assumes the entire

cost of all necessary servicing, repair, or correction, and any incidental damages.

In no event shall ATARI, or its software suppliers, distributors, or retailers be liable or responsible to a purchaser, customer, or any other person or entity with respect to any liability, loss, incidental or consequential damage caused or alleged to be caused, directly or indirectly, by the computer program software and/or material, whether defective or otherwise, even if they have been advised of the possibility of such liability, loss, or damage.

**LIMITED WARRANTIES ON MEDIA AND HARDWARE ACCESSORIES.** ATARI warrants to the original consumer purchaser that the media on which the computer software program and/or material is recorded, including computer program cassettes or diskettes, and all hardware accessories are free from defects in materials or workmanship for a period of 30 days from the date of purchase. If a defect covered by this limited warranty is discovered during this 30-day warranty period, ATARI will repair or replace the media or hardware accessories, at ATARI's option, provided the media or hardware accessories and proof of date of purchase are delivered or mailed, postage prepaid, to the ATARI Program Exchange.

This warranty shall not apply if the media or hardware accessories (1) have been misused or show signs of excessive wear, (2) have been damaged by playback equipment or by being used with any products not supplied by ATARI, or (3) if the purchaser causes or permits the media or hardware accessories to be serviced or modified by anyone other than an Authorized ATARI Computer Service Center. Any applicable implied warranties on media or hardware accessories, including warranties of merchantability and fitness, are hereby limited to 30 days from the date of purchase. Consequential or incidental damages resulting from a breach of any applicable expressed or implied warranties on media or hardware accessories are hereby excluded. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states also do not allow the exclusion or limitation of incidental or consequential damage, so the above limitation or exclusion may not apply to you.

**No returns, refunds, or credits.** To keep our costs down, we accept no returns, except for defective media or for goods damaged in shipment, and we give no refunds or credits.

**Goods damaged in shipment.** If your order arrives damaged, please call one of our toll-free numbers within seven days after receiving your order. Have your packing slip at hand and ask for a Return Authorization number. Do not return a program to APX without this number.

**Right to make changes.** We reserve the right to make price and availability changes in the products described in the APX catalog at any time and without notice.



# APX Programs by RAM Size

## 8K RAM Cassette

Anthill 44  
Blackjack Casino 39  
CodeCracker 42  
Decision Maker 17  
Dog Daze 35  
Keypad Controller 64  
Mugwump 32  
T: A Text Display Device 62  
Ultimate Renumber Utility 56  
Video Math Flashcards 27

## 16K RAM Cassette

Atlas of Canada 31  
Avalanche\* 48  
Babel 40  
Banner Generator 22  
Blackjack Tutor 21  
Block 'Em 38  
Bowler's Database 13  
Bumper Pool 42  
Centurion 49  
Chameleon CRT Terminal Emulator 52  
Cubbyholes 26  
Dice Poker 45  
Downhill 45  
Eastern Front (1941) 34  
Extended fig-FORTH 53  
Extended WSN 59  
Hickory Dickory 28  
Instedit 58  
Lemonade 32  
Letterman 25  
Lookahead 44  
Mathematic-Tac-Toe 27  
Memory Match 40  
Morse Code Tutor 22  
Number Blast 26  
Pro Bowling 41  
Reversi II 37  
RPN Calculator Simulator 16  
Sketchpad 19  
Solitaire 39  
Sound Editor 60  
Space Chase 38  
Text Formatter (FORMS) 16

## 24K RAM Cassette

Attank! 41  
Domination 36  
Dsembler 61  
Keyboard Organ 20  
Minotaur 49  
Outlaw\*/Howitzer 43  
Player Piano 20  
Presidents of the United States 29  
747 Landing Simulator 36  
Space Trek 50  
Tact Trek 50

## 32K RAM Cassette

Block Buster 33  
Terry 37  
Wordmaker 25

## 16K RAM Diskette

Anthill 44  
Avalanche\* 48  
Banner Generator 22  
Blackjack Casino 39  
BLIS 63  
CodeCracker 42  
Decision Maker 17  
Diskette Mailing List 15  
Lemonade 32  
Load 'n Go 63  
Mugwump 32  
Preschool Games 51  
Speed-O-Disk 65  
T: A Text Display Device 62  
Ultimate Renumber Utility 56  
Video Math Flashcards 27

## 24K RAM Diskette

Alien Egg 47  
Babel 40  
BASIC Renumber Utility (RENUM) 66  
Blackjack Tutor 21  
Block 'Em 38  
Bowler's Database 13  
Bumper Pool 42  
Castle 46  
Centurion 49  
Chameleon CRT Terminal Emulator 52  
Chinese Puzzle 47  
Cubbyholes 26  
Dice Poker 45  
Disk Fixer (FIX). Rev. 2.0 59  
Diskette Librarian 62  
Dog Daze 35  
Extended fig-FORTH 53  
Extended WSN 59  
GTIA Demonstration Diskette 64  
Hickory Dickory 28  
Insomnia (A Sound Editor) 60  
Instedit 58  
Keyboard Organ 20  
Keypad Controller 64  
Lookahead 44  
Mathematic-Tac-Toe 27  
Memory Match 40  
Morse Code Tutor 22  
My First Alphabet 24  
Number Blast 26  
Outlaw\*/Howitzer 43  
Personal Fitness Program\* 23  
Pro Bowling 41  
Reversi II 37  
RPN Calculator Simulator 16  
Screen Dump Utility 66  
Sketchpad 19  
Solitaire 39  
Sound Editor 60  
Space Chase 38  
Supersort, Rev. 3 61  
Text Formatter (FORMS) 16  
Variable Changer 58  
Wizard's Gold 46  
Wizard's Revenge 48

## 32K RAM Diskette

Advanced MusicSystem 21  
ATARI Program-Text Editor\* 55  
Atlas of Canada 31  
Attank! 41  
BASIC Program Compressor (MASHER) 57  
Block Buster 33  
Comedy Diskette 51  
Data Management System 12  
Domination 36  
Downhill 45  
Dsembler 61  
Eastern Front (1941) 34  
Enhancements to Graph It\* 17  
Family Budget 11  
Family Cash Flow 11  
Graphics/Sound Demonstration 43  
Hydraulic Program (HYSYS) 18  
Isopleth Map-Making Package 18  
Letterman 25  
Minotaur 49  
Presidents of the United States 29  
Quiz Master 31  
747 Landing Simulator 36  
Sleazy Adventure 47  
Space Trek 50  
Stereo 3-D Graphics Package 29  
Sultan's Palace 47  
Tact Trek 50  
Terry 37  
Weekly Planner 12

## 40K RAM Diskette

BASIC Cross-Reference Utility (XREF) 57  
Developer's Diskette 65  
Financial Asset Management System 10  
Mapware 30  
Musical Computer — The Music Tutor 28  
Newspaper Route Management Program 13  
Player Piano 20  
Source Code for Eastern Front (1941) 35  
Starware 30  
The Computerized Card File 14  
Wordmaker 24

## 48K RAM Diskette

ATARI Pascal Language System 54

\*Indicates trademark of Atari, Inc.





ATARI® PROGRAM EXCHANGE

P.O. Box 427, 155 Moffett Park Drive, Sunnyvale, CA 94086

Bulk Rate  
U.S. Postage  
PAID  
Permit No. 1  
San Jose, CA

Address Correction Requested

