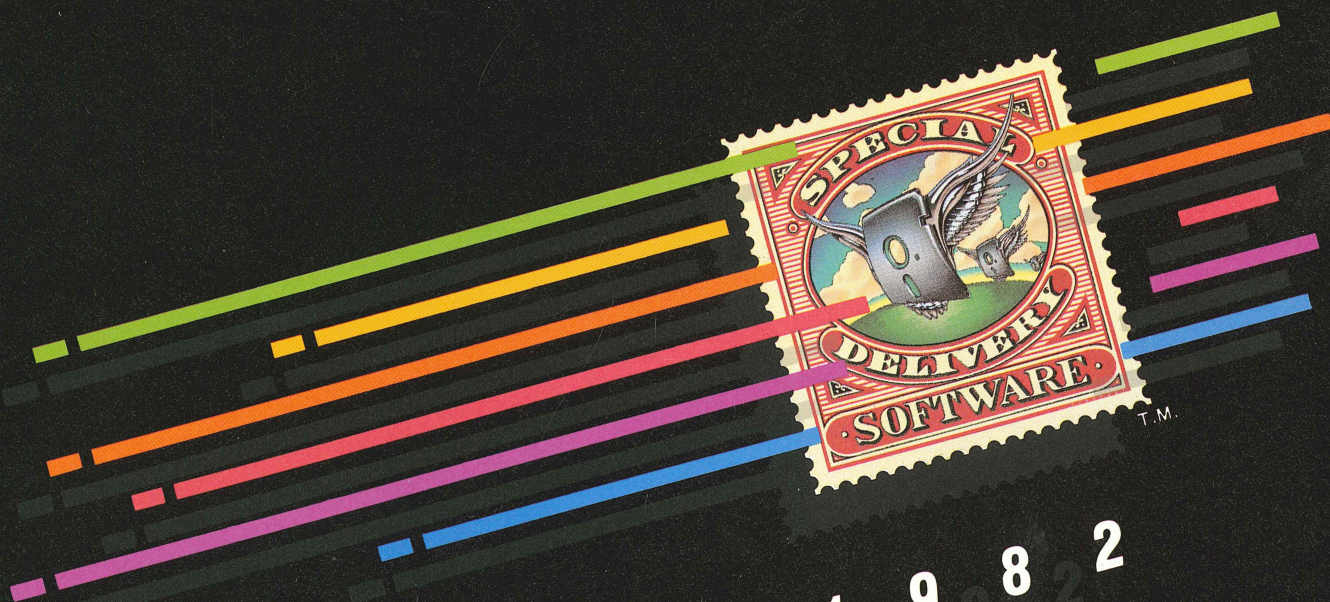


A P P L E



S P R I N G 1 9 8 2



Welcome...

...to the third edition of Special Delivery Software—Apple's outstanding collection of independently-written computer programs for the Apple II...and now the Apple III as well. The programs have all been designed to support you in business, entertain you at home, and even tutor you (and your children) in subjects like computer programming, bridge, and reading.

Inside you'll find more than 40 unique software packages, including all your old favorites plus a collection of promising new ones. Some programs—such as **Senior Analyst** and **Apple III Business Graphics**—are powerful business tools available for the first time anywhere. Others, such as **Apple Writer II** and **Apple Writer III**, make light work of sophisticated text processing. For designers, engineers, and hobbyists, **Designer's Toolkit** offers a way to computerize the drafting table. Other programs, such as **Moptown** and **The World's Greatest Blackjack Program**, will be enjoyed by everyone.

We've chosen these programs for their quality and ease of use. It's software, as we say, with its own "special delivery"—software you can put to work immediately. You'll find that each program comes complete with clearly-written instructions and—for your convenience and security—most come with a free back-up program diskette.

You can find all our programs at your local dealer. (Apple has more than 2500 dealers worldwide to serve you.) Your dealer can also demonstrate the programs and provide the kind of after-purchase support you've come to expect with Apple products.

...And what about programs *you* write?

We've been gratified by the tremendous response we've received from computer newcomers and "old hands," because we are committed to bringing all Apple computer users good, independently-written software at a reasonable price. From the comments we receive (We frequently hear: "Really useful!" and "...the most complete, versatile, easy-to-use program"), it's clear we're keeping that commitment.

If you've written programs with the same professional quality as the ones in this catalog, we'd like to hear from you. It makes no difference whether you're a software professional, or an amateur with a good idea. What interests us is whether your program would prove valuable to other people with similar needs. If so, Apple would like to make it available to them.

Send your programs along with documentation and a cover letter to: Software Evaluation Group, Apple Computer, Inc., 10260 Bandley Drive, Cupertino, CA 95014.

Senior Analyst

If you are a business professional, imagine using only a fraction of your time developing financial models, budgets, and the forecasts you need to make astute, timely business decisions. Imagine using more of your time working *with* results rather than just getting them.

With Senior Analyst, you can. Senior Analyst is a powerful, flexible corporate planning and financial modeling tool that eliminates the tedium of pencil-and-paper (and erasure) planning in favor of planning by computer. Planning that is time, resource, and cost effective.

With Senior Analyst, for example, you can quickly create "What if?" scenarios to see how changes in cost of goods or production can affect your business—a task which ordinarily would take hours. Use Apple's keyboard to enter the data, labels, and titles you want to build into a model. Then, working with built-in functions or functions you create, Senior Analyst will automatically calculate and recalculate as you experiment with different scenarios.

In a multi-manager environment, you'll find you can use Senior Analyst to link models to share values, calculation rules, or column-and-row definitions.

Senior Analyst is designed to offer even the computer

novice an easy way to create and display different budget and planning models, profit and loss reports, cash flow projections, forecasts, and much more. The program provides easy-to-follow commands that are always visible on the screen, and built-in functions that make it easy to perform complex calculations.

Senior Analyst:

- turns your Apple computer into a powerful corporate planning tool, which you can use to tackle any numerical problem you have;
- requires no programming experience, because easy-to-follow commands make it possible for you or anyone in your organization to put the program to work immediately;
- performs complex calculations quickly and accurately, saving time and reducing your margin of error;
- displays commands at every stage of your work, freeing you from clumsy procedural rules;
- lets you pass data and/or calculation rules from model to model, so you can use the same data or rules for different applications or new models.

Follow Senior Analyst's clear, simple commands (they're always displayed) to construct models of virtually any size and format. On a single diskette, for example, you can create a model spread over nine computer "pages." Each page can store up to 800 values in up to 20 columns by 99 rows. Pages may stand alone, or be linked horizontally or vertically to share common row/column definitions. And since models can span several disks, you can use them to link and compare values as well as calculation rules.

To construct a model, simply use the ROW and COL (column) commands to create alphabetic titles to use in your calculations. Senior Analyst arranges them into a "worksheet" format for numbers you'll enter with the VALUES command.

To perform calculations, choose from the 20 functions built into Senior Analyst. Senior Analyst provides standard functions like SUM, MAX, MIN, AVE (average), and PCT—important time savers. Other built-in functions let you quickly program your model to run cumulative totals, cyclic amounts, and amounts that are functions of previous amounts.

There are advanced functions as well—for three kinds of depreciation, compound growth rate, net present value, and linear regression forecast.

Or you can quickly and easily build your own calculations— $PRFT = SLS - COST$, for example—into the program. Because calculation rules appear in abbreviated English, it's easy to see *how* you arrived at your results when you (or others) review your models months later.

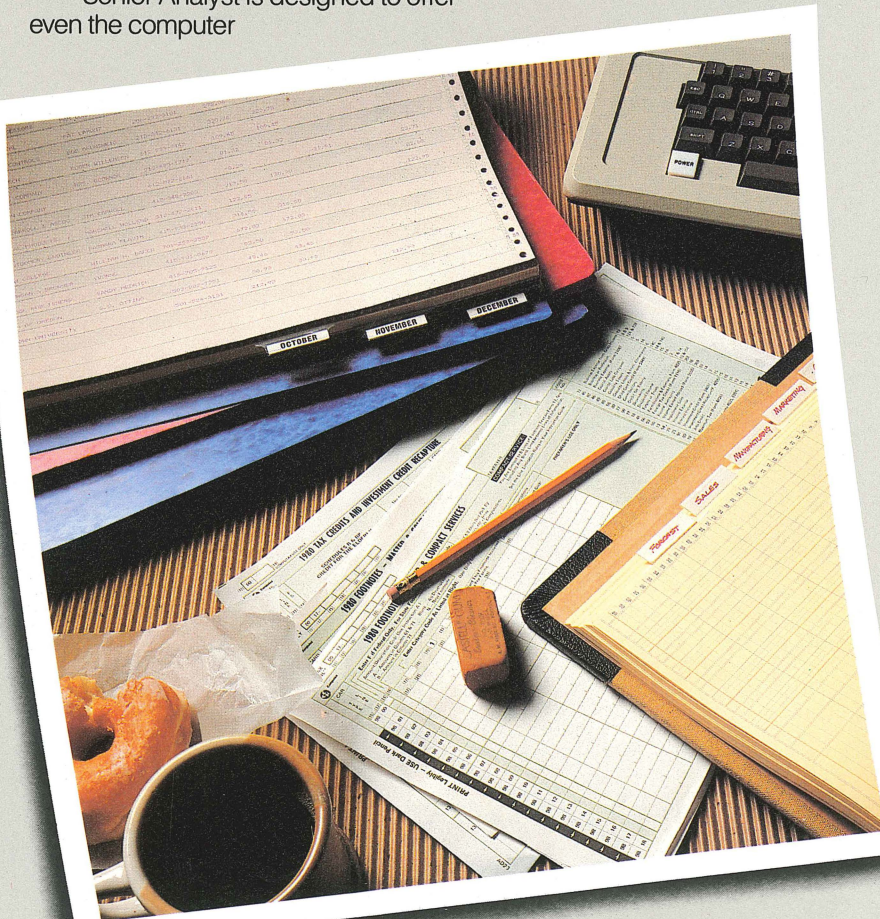
The GLOBAL command makes Senior Analyst particularly powerful, because it lets you borrow and consolidate information from other Senior Analyst models—information such as regional sales figures that are stored on several disks. With the GLOBAL command, type in the location of the information you want to borrow. Then, one more key-stroke, and Senior Analyst does the rest, instantly supplying your model with new data, and recalculating values.

You'll also find it easy to store, retrieve, and print your models. In fact, Senior Analyst lets you effectively print materials and do computer modeling at the same time.

Senior Analyst is written in Pascal.

With Senior Analyst, you'll receive:

- 1) a Senior Analyst program diskette;
- 2) sample data diskette;
- 3) back-up diskette;
- 4) tutorial instructions; and
- 5) reference manuals.



Apple Writer II

A powerful new word processing program for the Apple II computer, Apple Writer II allows you to create, edit, format, and print a wide range of written materials quickly and accurately—from memos and personalized form letters to business plans and book-length manuscripts.

With Apple Writer II, you get all the sophisticated features professionals look for in word processing systems, including paragraph and column tabulation, underlining, and automatic print formatting. You also get an easy-to-use Word Processing Language (WPL) which allows you to create your own time-saving word processing functions. (And with a Sup'R'Terminal™ board, you can convert your 40-character-per-line screen into an 80-character-per-line screen.)

Apple Writer II eliminates time-consuming retyping and editing tasks—allowing you to turn your attention to more important matters in progress.

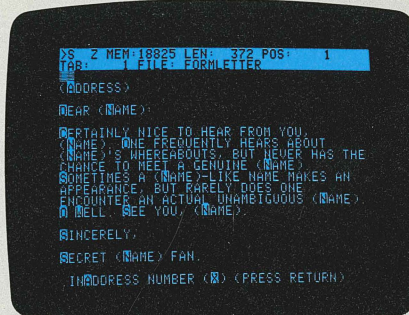
Apple Writer II:

- gives you all the advantages you'd expect to find in a sophisticated word processing system (including an 80-character-per-line screen when used with the Sup'R'Terminal board) at a fraction of the cost;
- offers built-in Help screens, so you have a handy, useful reference guide to all of Apple Writer II's features;
- provides powerful functions, making it easy for you to set up complex business forms and generate standard letters;
- lets you link several different text files together, so you can easily insert a quotation, a page—even an entire report—into your documents.

Anyone familiar with a typewriter will find Apple Writer II simple to use. Text entry is straightforward and fast; editing requires only a handful of simple keystrokes.

You can, for instance, display your text either black-on-white or white-on-black. You can move the cursor by character, word, or paragraph, or jump to any part of the text. You can transfer, copy, or delete blocks of text as well.

And Apple Writer II's convenient "Find and Replace" feature can quickly locate and replace words throughout your copy.



The program also provides several powerful functions previously available only on high-priced word processing systems:

TAB FILES: Apple Writer II allows you to store up to 32 tab settings for quick-formatting of standard letters and intricate forms.

GLOSSARY: Allows you to use short-hand commands to insert frequently-used words and phrases.

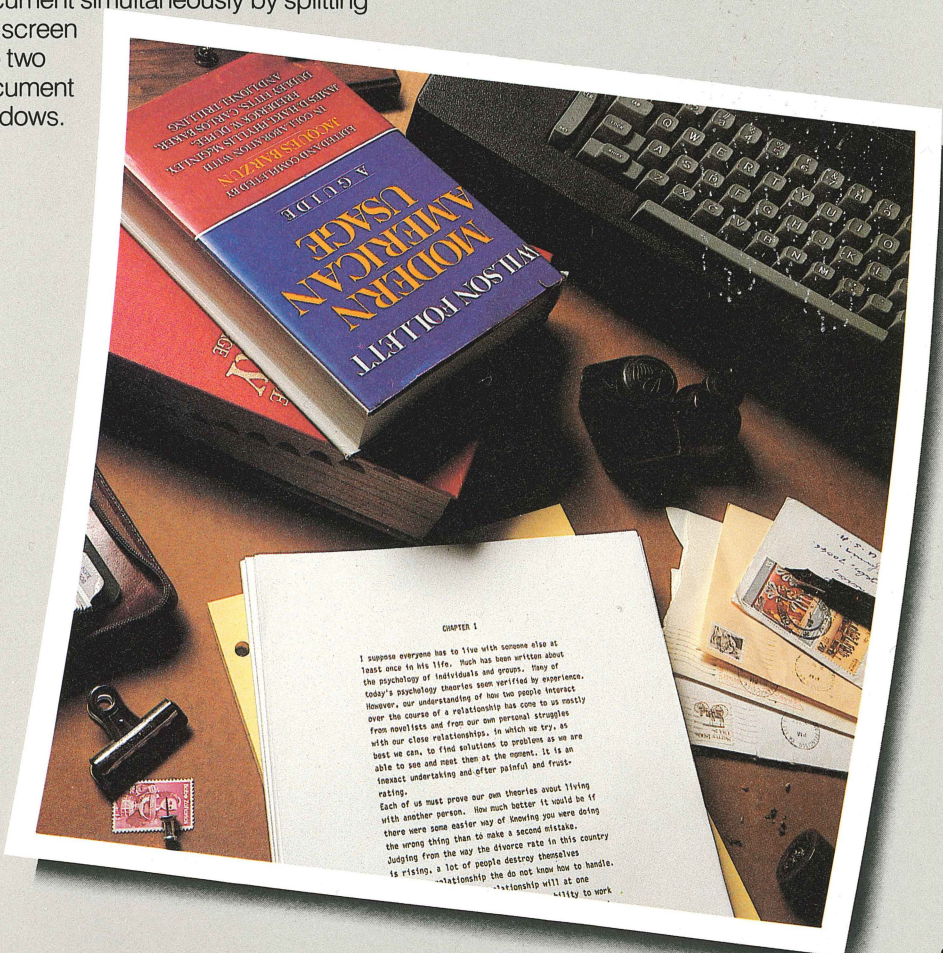
SPLIT SCREEN: Lets you display and process two separate portions of a document simultaneously by splitting the screen into two document windows.

WORD PROCESSING LANGUAGE (WPL): A special language containing standard Apple Writer II commands that makes it easy to generate form letters and to customize your own word processing applications.

Apple Writer II works with any Apple II-compatible printer. Automatic formatting controls let you specify margins, headers, footers, line spacing, and center, left, and right justification. (With many printers, you can produce superscripts, subscripts, and underlines as well; check with your dealer about your system's specific capabilities.) Before committing text to paper, you can also "print" it to the screen to see how the document will appear.

Finally, the Apple Writer II package includes a special utilities program that allows you to transfer files between Apple Writer 1.0 and your new Apple Writer II.

With your Apple Writer II package you will receive: 1) Apple Writer II master diskette; 2) back-up diskette; 3) instruction manual.



APM

Project management can be confusing and unwieldy, a tangle of a million and one details. But now you can use APM to schedule, track, and analyze the sequence of events crucial to a project's timely completion.

APM is CPM (Critical Path Management) for the Apple II. Designed for large-scale project planning, it is a powerful, easy-to-use critical path method (or "network analysis") program.

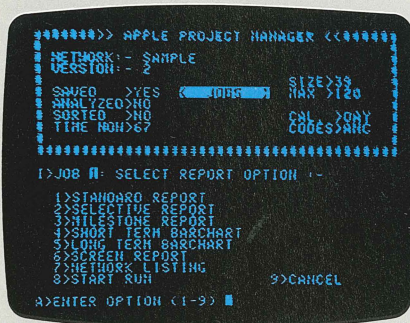
With APM you can organize hundreds of chores and activities—almost 1700—into a network of inter-related tasks. You also can store the equivalent of eight average-size networks on each diskette, avoiding the expense of costly storage through a large time-sharing network.

Based on time estimates and resource requirements you assign to each task, APM will compute the completion time of each stage of the task, identify the resources you'll need, and tell you which tasks are of critical importance.

APM is a valuable tool that can help you schedule complex operations more effectively. With it, you'll know if you're ahead, behind, or right on schedule.

APM:

- lets you use the power of your Apple II to plan and track projects...so you can avoid time-consuming clerical activity;
- provides an easy-to-use alternative to timesharing...so you can process data whenever you want and get immediate results;
- allows you to generate 14 different project status reports and charts...so you can easily track a project's costs and critical path;
- is a powerful modeling tool for "What if?" scenarios...tasks too complex for pen-and-paper planning.



To prepare a network, first define and number your sequence of activities or events. Then estimate the duration of each activity. You may also estimate the resources you expect to allocate to each task. Enter this information into the computer, using APM's Create/Change Menu option.

Next, use any of the calendar formats APM provides to establish real date calendar parameters—including month/year, project start and finish dates, and working/non-working days. Or, you may use any of the calendar formats that you have previously created and saved on diskette.

APM's Analyze/Print Current Network option then processes and transforms your information into a critical path schedule. With this option you can also print any of APM's 14 reports to help you evaluate these results. You may then (or any time in the future) update and refine your network to represent the progress and changes that occur, and have the network reanalyzed. You'll also find with APM that you can transfer elements from one network to another—a time saver when you prepare schedules for similar projects.

When you want to generate reports, you can choose printouts of an overall project barchart, period barchart, histograms of resource demand, standard reports, and selective reports. The overall project barchart will produce a "stitch together" barchart for all project activities, so you get a graphically-displayed schedule that's easy to understand. You also may request selective reports for a specific department or project phase, a "milestone" summary report, and cash flow curves.

APM works with Activity on Arrow network convention and is compatible with almost any printer.

APM is written in Applesoft BASIC.

With the APM package you will receive: 1) APM master diskette; 2) back-up diskette; 3) instructions.



VisiCalc™ Real Estate Templates

Want to earn the best return on your investments? The Real Estate Analyst Series of VisiCalc Templates helps you scrutinize potential realty ventures, so you minimize risk—and maximize yield—when investing in income properties.

Written using the popular VisiCalc financial modeling program, the VisiCalc Real Estate Templates utilize built-in calculations that enable property managers, brokers, realtors, and speculators to automate time-consuming property analyses. In addition to simplifying income property investment analysis, the templates feature comparative depreciation, amortization, and mortgage loan analysis options useful for projecting cash flows and estimating income tax deductions.

With the VisiCalc Real Estate Templates, you're able to pinpoint sound property investments, and screen out those that don't appear to be worthwhile.

VisiCalc Real Estate Analyst Templates:

- simplify data checking and comparison through their "split-screen" capability... so you can display, move, and modify widely separated entries side by side and see the results;
- include built-in template calculations that can be revised... so you can adjust them for special circumstances;
- provide comparative analyses of depreciation, amortization, and payment methods... so you can choose from a variety of investment strategies;
- generate selective printouts... so you can show reports to clients without exposing sensitive information.

The Income Property Investment Templates let you calculate various combinations of financing, sales price, inflation rate, depreciation techniques, changes in income and expenses, and other investment components. Analyses can be performed using all three of the standard depreciation methods. In addition, you can project future investment performance simply by entering a new analysis date. With the Personal Financial Statement Template you can change, update, and quickly print out fiscal information, so you're just a keystroke away from presenting it to the bank. You save hours of preparation each time your financial statement requires revision.

The three amortization template options (Monthly Calculator, Monthly Schedule, and Annual Summary) allow

you to compare the financial repercussions of both fully-amortized and balloon payment loans. For example, **Monthly Calculator** lets you substitute values for loan variables (i.e., purchase price, down payment percent, annual percent rate, and loan term) before choosing the most affordable plan.

The **Monthly Schedule** option details your first 36 months of payments, providing information on principal and interest payments, and balances after payment. This option also makes it possible for you to forecast a three-year cash flow.

Finally, the **Annual Summary** option allows you to quickly calculate the yearly payment schedule for the life of a loan even if the first and last years are partial years. Loans for 31 years or longer take only 50 seconds to compute.

The **Mortgage Loan Analysis Template** (which can keep track of up to five mortgages) calculates: (1) the principal balance on the acquisition date; (2) cumulative interest and principal from the acquisition date; and (3) the interest and principal paid during the past 12 months. Partial-year payment calculations can be made for property owned less than one year.

Using the **Comparative Depreciation Schedule Template**, you can calculate the tax consequences of property depreciation by three methods: straight line, declining balance, and sum-of-the-year's digits. It allows you to display all three methods side-by-side for convenient comparison. The template also automatically switches from declining balance to straight line depreciation in the year during which the straight line method is more advantageous to the taxpayer.

The ability to ask "What if?" helps you select investments with the greatest likelihood of generating optimal returns.

To use the Real Estate Analysis Series of VisiCalc Templates, you'll need the VisiCalc Computer Software Program diskette, which is available from your Apple/Personal Software dealer.

VisiCalc Real Estate Templates is written in assembly language, in a 13-sector format.

With the VisiCalc Real Estate Analyst Templates package you'll receive: 1) two VisiCalc Real Estate Analyst Templates data diskettes; 2) user manual.



PLAN80

Financial decision making is a demanding, difficult job requiring accurate information. The conventional pencil, paper, and calculator approach to developing business plans is highly error-prone and time-consuming, however. Producing finished reports by typewriter only heightens the inefficiency and margin for error involved.

PLAN80 is a powerful modeling tool for financial planning and analysis that lets you tackle any numerical problem that can be defined in row and column format. It performs complex calculations quickly and precisely, letting you examine "What if?" questions so you can evaluate more planning alternatives in greater detail—without tiresome erasing and recalculation.

With PLAN80, you'll get more than your calculated results—you'll know how you got them. Calculation rules are defined by simple and familiar names, such as "SALES = UNITS x PRICE," so you can review your assumptions and methods with people who have never seen PLAN80, and remember how you produced your results months after constructing a model.

PLAN80 doesn't require any knowledge of programming. Anyone in

your organization can add or change data to generate updated budgets, forecasts, and financial reports in minutes. Freed from tedious clerical activity, you'll have more time to use the results to plan, analyze, and manage.

PLAN80:

- allows for consolidation of models... so the task of designing a complete model can be shared by several people;
- lets you format and store reports exactly to your specifications... so you can create polished business plans for your screen, printer, or to be included in written reports;
- has the ability to use separate files as the program is running... so you can define one set of modeling rules to be used by many applications, or use one application to handle an unlimited number of data sets;
- allows you to transfer files from one disk to another... so you can use the same data in different applications, or consolidate data from various files into a single, summary file.

PLAN80 can be used for any application requiring a worksheet, including

cost estimating, cost center budgeting, cash management, sales projection and analysis, resource allocation, inventory planning, risk analysis, profit planning, and tax planning.

Creating a model is as simple as writing a letter, except with PLAN80 you use statements instead of sentences. First you define the framework of your model, listing row and column names in familiar terms such as UNITS, SALES, and APRIL. You may also specify heading, description, line spacing decimal position, and other features to make your reports more visually effective.

```

*** FILE "EX01.TEXT" ***
: TITLES
: 1 PLAN80 EXAMPLE #1
: 2 FIVE YEAR PROFITABILITY MODEL
: COLUMNS
: Y1981 = 1.0
: Y1982 = 1.0
: Y1983 = 1.0
: Y1984 = 1.0
: Y1985 = 1.0
: ROWS
: UNITS
: PRICE (X)
: UCOST (X)
: TAXRT (X)
: SALES
: COST
: OVERHEAD
: PBT (X)
: TAXES
: NET (X)
: ASSUMPTIONS
: UNITS
: PRICE
: UNIT COST
: TAX RATE
: DOLLARS (THOUSANDS)
: SALES
: COST OF SALES
: OVERHEAD
: PROFIT BEFORE TAX
: TAXES
: NET INCOME

```

Next you enter data values and calculation rules. Powerful mathematical functions are built into PLAN80 to help you perform complicated calculations with a single statement.

At any point in the PLAN80 model you can display or print results on your screen or printer, save all or part of those results for use by another model, or play "What if?" by inputting new values, recalculating, and then displaying or printing the new results. Because headings, rules, and data are all listed together in the program, you can instantly make changes in your model.

```

PLAN80
SALES = DOLLARS (800'S)
COST = SALES
OVERHEAD = COST OF SALES
PBT (X) = PROFIT BEFORE TAX
TAXES (X) = TAXES
NET (X) = NET INCOME
DATA
UNITS = 100 110 (11.20)
PRICE = 1.00 1.00 (11.10)
UCOST = 1.00 1.00 (11.10)
TAXRT = 1.00 1.00 (11.10)
OVERHEAD = 1.00 1.00 (11.10)
RULES
SALES = UNITS * PRICE
COST = UNITS * UCOST
PBT = SALES - COST - OVERHEAD
TAXES = PBT * TAXRT
NET = PBT - TAXES
: DISPLAY
: END

```

PLAN80 is written in Pascal.

With your PLAN80 package, you'll receive: 1) two PLAN80 program diskettes, including eight sample application programs; 2) back-up diskettes; 3) PLAN80 Tutorial and Reference Manual.



Comm-Pac

Put the world at your fingertips. With Comm-Pac and a D.C. Hayes Micro-modem,TM you and your Apple II can communicate easily over the phone with other computers, timesharing systems, networks, newswires, and more...so you can send and receive information instantly.

Comm-Pac is a convenient, easy-to-use program that lets you quickly tap into stock reports, information services, Apple Bulletin Board Systems (ABBS), and computerized data bases—anywhere in the world. It can also be the link to your company computer for collecting or entering data, communicating with employees, or working with company software programs.

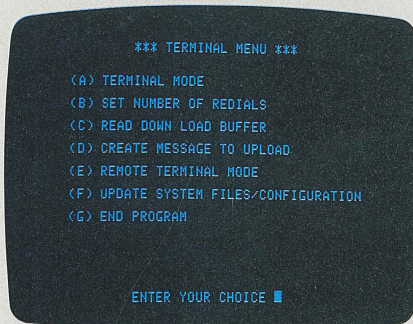
Comm-Pac makes communicating with other computers especially easy because once you've told the program which exchanges you frequently call (it stores up to 35), Comm-Pac does all the work of dialing and "logging on" with passwords, account numbers, and other appropriate protocol. There's even an automatic re-dial feature that dials busy lines as many times as you designate—while you continue working. You save the time and trouble of having to remember tedious logon procedures for each exchange you use.

Comm-Pac:

- provides instant access, with "auto-dial" and "auto-logon" features, to as many as 35 exchanges... saving you time typing tedious logon data;
- supplies dummy logon files for the Source, Compuserve, Dow Jones, and ABBS, so you can easily create your own logon files;
- allows you to transfer and work off-line with information from larger computers, cutting your timesharing costs;
- lets you enjoy the advantages of large computer data bases, so you get greater system flexibility.

To use Comm-Pac, you must already have an account number and/or password to computerized information sources and data bases you want to use. (Exception: Apple Bulletin Board Systems usually require nothing more than a telephone call.) Your Apple II must also be linked to your telephone via a D.C. Hayes Micromodem (a device that

converts the computer's electrical signals into sounds a telephone can transmit). Note that Comm-Pac only works with the Micromodem.



Comm-Pac's main menu makes it easy for you to retrieve, send, edit, and store information. Simply select **Terminal Menu**, for instance, to dial an exchange. The program will automatically display the list of exchanges on file. A single keystroke identifies the number you want to reach, and Comm-Pac dials until it gets an answer or until it reaches the re-dial limit that you've preset.

With **Down Load Menu**, you can scroll through data and save part or all of it as text or binary files, and also print,

read, rename, or delete previously stored screen buffers.

Comm-Pac makes it possible for you to "download" to your Apple II information from larger computers that you want to store on diskette for later reference or printout. In addition, you can use Comm-Pac to transfer files from one computer to another. Or you can receive messages in **Remote Terminal Mode**, which makes your Apple II accessible from another terminal.

The **Upload Menu** lets you create messages for future uploading. You can also edit previously stored messages.

By selecting **Systems Menu**, you can enter names, phone numbers, and system prompts needed to dial and logon automatically to the exchanges you want to reach. You also can add or delete exchanges in the file, and create and update bulletin board answers.

Comm-Pac is written in Applesoft BASIC.

With the Comm-Pac package, you'll receive: 1) Comm-Pac program diskette; 2) back-up diskette; 3) instruction manual.



Goodspell

Make your Apple Writer text files letter-perfect every time!

A fast, reliable spelling verification system, Goodspell safeguards against misspellings. It helps rid your text of embarrassing typographical errors, allowing you to produce letters, documents, and presentations more accurately than ever before.

Goodspell carefully checks your every word against its 14,000-word dictionary, immediately alerting you when it comes across one it doesn't recognize. Its 3000-word-a-minute processing speed allows you to check an average text file in 60 seconds or less.

An indispensable tool for Apple Writer users, Goodspell makes it easier for you to express yourself more clearly.

Goodspell:

- is simple to operate... so you need little computer experience to use it;
- allows you to temporarily add new words to its dictionary as you verify them... so individual text files can be checked for foreign, technical, and other uncommon words.

To use Goodspell, simply boot the program diskette, verify the printer and driver slots, and wait 20 seconds while

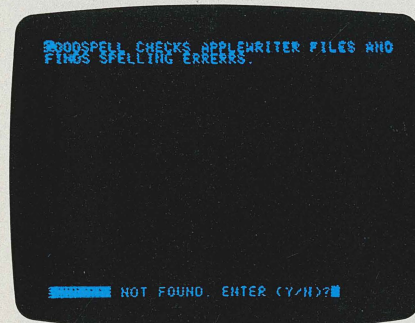
the Goodspell dictionary is loaded. You can either place your Apple Writer diskette in a second disk drive, or replace the Goodspell master with an Apple Writer diskette after the dictionary is loaded. You will be prompted for the name of the Apple Writer file you want checked. (If you don't remember the exact name, Goodspell will catalog your Apple Writer diskette for you.)



The program will quickly read your text file from start to finish, stopping at each word it doesn't recognize (misspellings or words not in its vocabulary). It will display the word with surrounding text, and ask you to verify the spelling. If the word is spelled correctly but is not

in the program's permanent memory, Goodspell will add the word to its "temporary" dictionary, and pass over subsequent appearances.

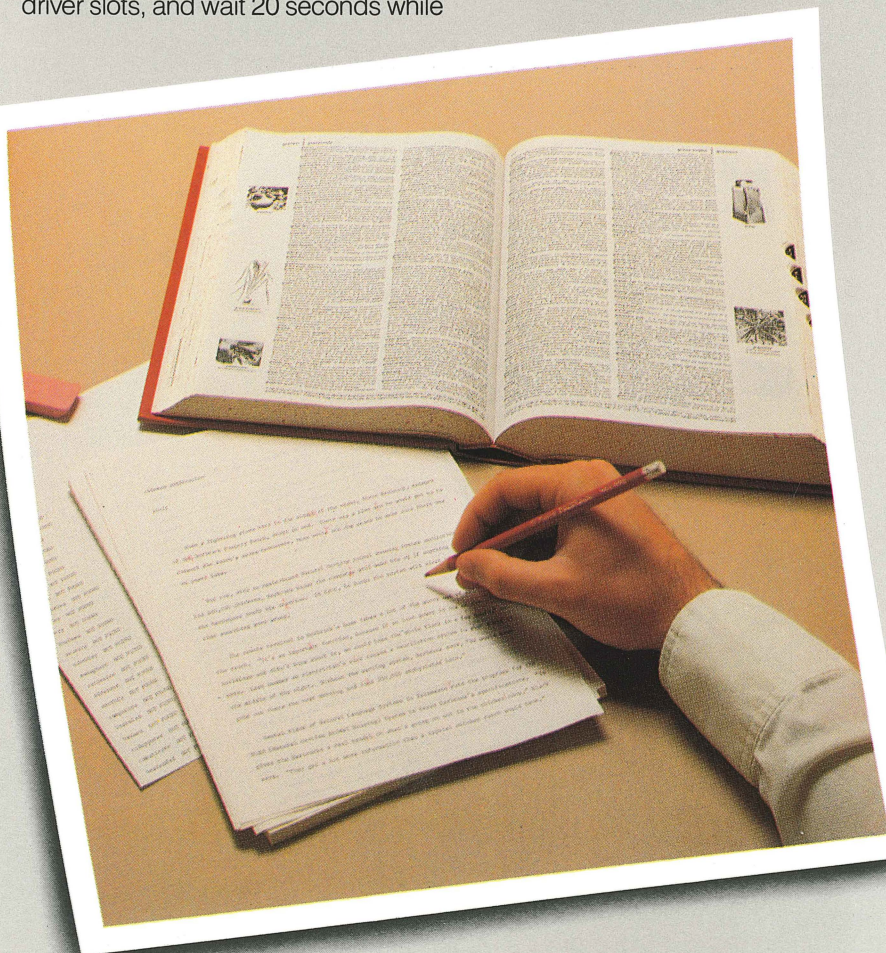
The program will automatically print out a hard copy of each misspelling. You can verify as many text files as you want at one sitting, and Goodspell will label the error printouts for easy correction later.



Goodspell is compatible only with 16-sector Apple Writer diskettes. (Note that you can convert 13-sector Apple Writer to 16-sector using the "muffin" routine on the DOS 3.3 master diskette.)

Goodspell is written in Applesoft BASIC.

With your Goodspell package, you'll receive: 1) Goodspell master diskette; 2) user manual.



Script II

Add style to your printed Pascal text files. Script II allows you to format programs, documents—any text written using the Apple Pascal Editor—with greater ease and flexibility than ever before.

This powerful program enables you to embed text-formatting commands in your Apple II Pascal text files and get layout-perfect printouts every time. (You can also print Script-formatted files on the screen or save them on diskette.)

Script II works with a wide variety of Apple-compatible dot matrix and impact printers. With it, you can: designate line spacing, margins, and page breaks; paginate using headers or footers; underline; center-, left-, and right-justify text; and much, much more.

Now you can produce attractive, easy-to-read Pascal documents and program listings—custom-tailored to your specifications with Script II.

Script II:

- speeds recognition of bugs while you're debugging programs, because it enables you to print Pascal procedures on individual pages and underline key words within them;
- lets you selectively print any portion of an Apple II Pascal text file (page 19, for example), so you don't waste time and diskette space re-saving small text segments;
- simplifies document production, because it allows you to "chain" text files together for uninterrupted printing;
- gives you the option of saving formatted text files to diskette, letting you generate attractive, highly readable printouts directly with the Apple II Pascal Filer and Editor;
- allows you to represent multiple command sequences with simpler, single macro commands, so you can quickly embed print instructions over and over again.

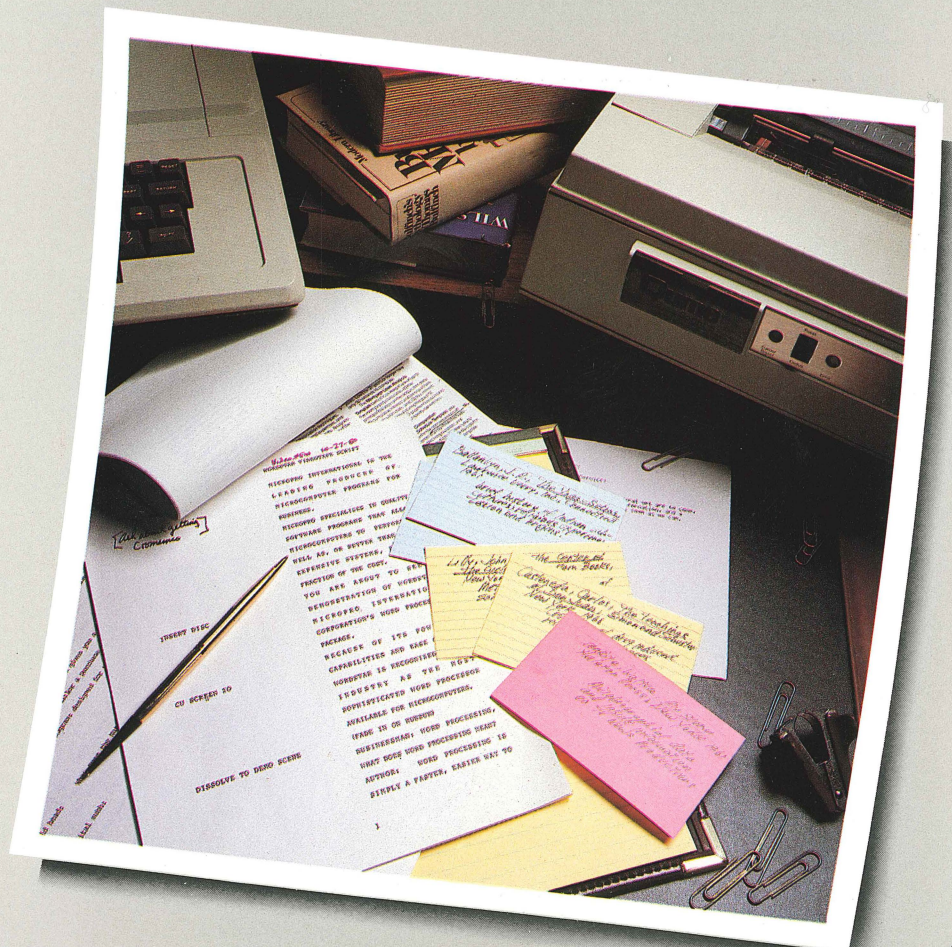
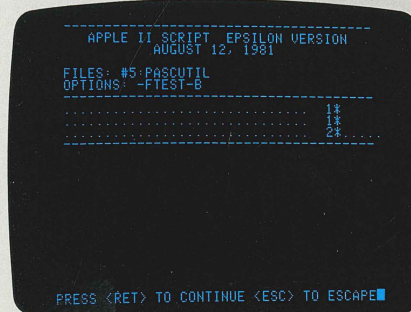
Script II is extremely easy to use. Simply load the program into memory and insert your Apple Pascal diskette in the disk drive. Script will read the file you indicate, executing your print formatting commands.

Script II offers numerous run-time options that let you see formatted files to the screen, save them on diskette, or print them on an Apple-compatible printer. With a Qume printer, you can get true microspace justification.

There are nine Script run-time options you can use in a variety of combinations. "-Q-Z12-K-03-8," for example, indicates your file is to be outputted to a Qume-like printer (-Q), set with a left margin of 12 (-Z12) with all Pascal keywords underlined (-K), and pages 3 through 8 only to be printed (-03-8).

Script II is written in Pascal.

With the Script II package, you will receive: 1) Script II master diskette; 2) instruction manual.



Order Tracking System

If you're an independent sales representative, you can stay on the inside track to sales success with the Order Tracking System. Not only does this program track your commissions, it lets you see where time and energy are being spent unprofitably.

Designed for independent sales professionals, Order Tracking System helps you process, locate, and analyze sales information. It's an easy-to-use sales management program that lets you keep tabs on principal revenue generators, calculate commissions, maintain monthly sales reports, and analyze sales effectiveness.

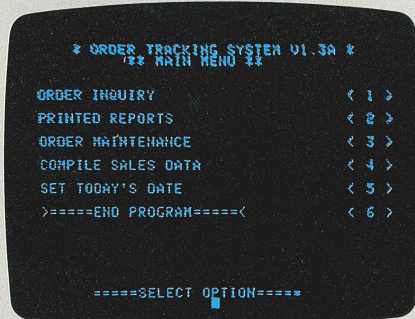
Order Tracking System eliminates the clutter and time-consuming drudgery of conventional record keeping. With it, you can help ensure that your business grows in a profitable, orderly fashion.

Order Tracking System:

- helps track and analyze customer, product, and sales force activity... so you know exactly where your strengths lie;
- tabulates daily sales information cumulatively... so you can instantly generate up-to-date monthly reports;
- stores up to 100 random purchase orders per diskette,

or uses separate diskettes for each product or customer... so your records stay organized as your sales grow;

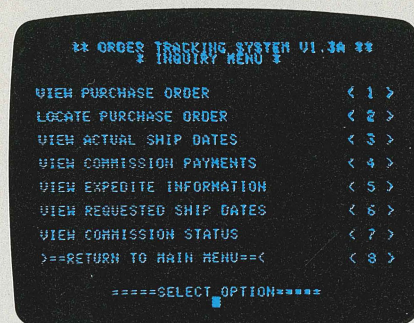
- computes complicated multiple commission rate orders automatically... so you avoid performing inaccurate, time-consuming calculations.



To use Order Tracking System, first choose the **Set Today's Date** option and enter the date. Next, **Order Maintenance** lets you log orders, whether you're entering a new order or updating an existing one. For supplementary data, choose the **Order Inquiry** option, which allows you to add or recover information on partial shipments, status of purchase orders,

and special commission rates. This is especially

useful for keeping in touch with customer-related problems.



Order Tracking System's **Compile Sales Data** option lets you process and store diskette data, taking only a few moments to separate order information into proper categories. With it you can compile the necessary information to print all sales reports.

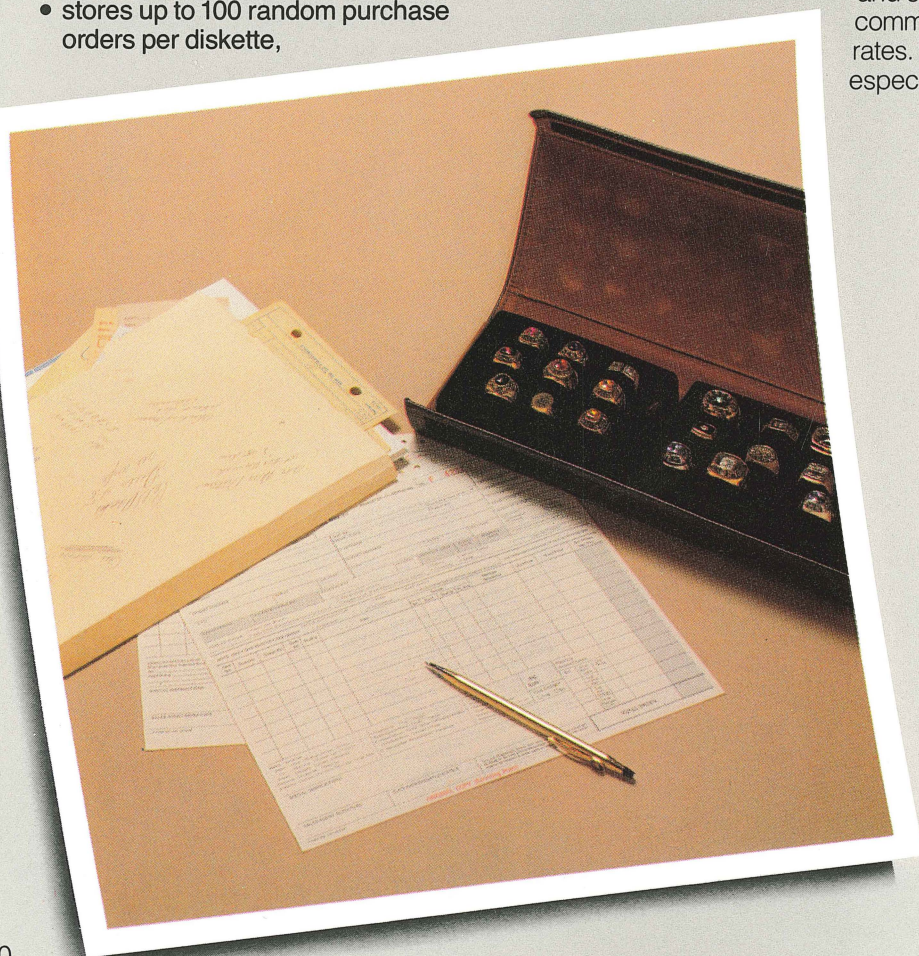
The **Printed Reports** option gives you a **Reports Menu**, which lets you generate various printouts to interpret sales factors and performance. **Sales Reports** (commission status, salesman, customer, principal, and monthly analyses) lets you generate reports on updated sales activity. As an example, **Salesman Analysis** compares the performance of individual salespeople on a month-to-month basis. Used with **Commission Status**, it identifies which products and customers fatten your commission paycheck, and those that amount to a waste of time.

A second **Printed Reports** option, **Order Reports** (which lists orders by customer or principal, and lists all expedited orders) lets you instantly verify orders and list corresponding action items. Access to this data can save you lots of trouble. Suppose you get a phone call about a "shorted" order that has to be settled immediately. First select **List Orders by Customer** to verify the order. Then write a reminder to trace the shorted merchandise in **List All Expedited Orders**.

A third **Printed Reports** option, **Copy of Purchase Order**, lets you print out purchase order data for hard-copy files. It tactfully omits commission rate information when generating customer copies.

Order Tracking System is written in Applesoft BASIC.

With the Order Tracking System you'll receive: 1) Order Tracking System program diskette; 2) back-up diskette; 3) data disk; 4) instruction manual.



Formulex

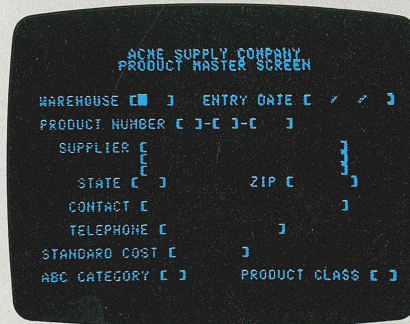
Take control of your business forms with the Formulex Forms Package. Formulex lets you organize your paperwork into a comprehensive data system tailored to your specifications.

With Formulex, you design data entry screens that match your paperwork—whether you're using shipping orders, invoices, questionnaires, or other business forms. Once you set up the system, anyone who can use a typewriter keyboard can enter information quickly and accurately.

Formulex:

- uses simple commands for formatting screens, saving data, and retrieving forms in the Pascal system... so it saves you programming time;
- incorporates easy-to-use forms features that aren't otherwise available in the Pascal language... so it simplifies data entry requirements;
- allows you to define exactly what kind of information should appear in each field, and what information is required on the form... so it ensures thorough handling of each transaction;
- fills redundant fields automatically... so it saves input time;
- searches files selectively for the information you specify... so it simplifies data retrieval.

Formulex organizes data entry, the "front end" of most applications programs. If you have some Pascal programming experience and familiarity with the Pascal editor, you'll find it easy to set up a sophisticated input procedure using Formulex's simple screen formatting commands. And since Formulex makes standard Pascal text files, you can edit files or write your own programs to access your Formulex data.

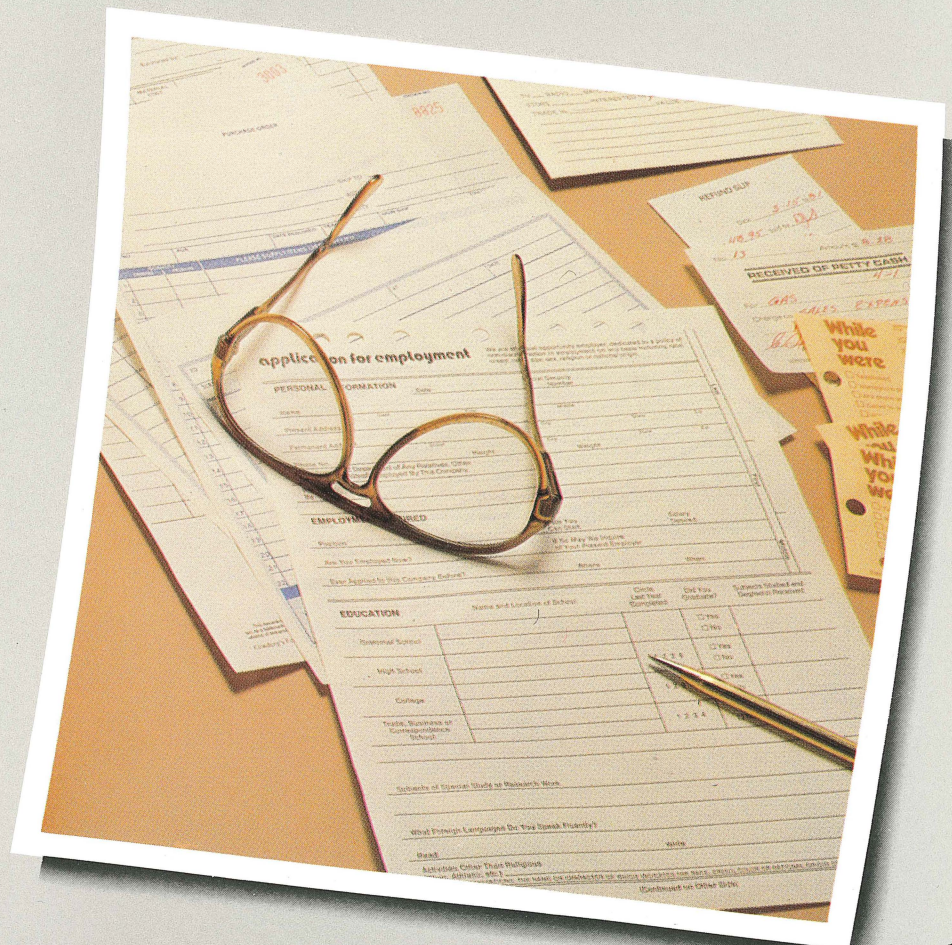


You can use up to 10 field specification commands to define precisely what kind of information will go into each field. You can instruct Formulex to reject an invalid transaction code, for example, or an incomplete mailing address.

Formulex contains built-in commands which let you add, modify, delete and list your data files—without any programming.

Formulex is written in Pascal.

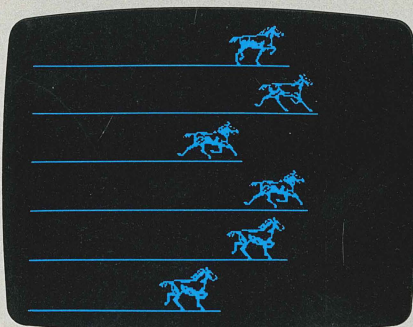
With the Formulex Forms Package, you'll receive: 1) Formulex program diskette; 2) back-up diskette; 3) Formulex reference guide.



Pascal Animation Tools

Has the trick of animation been eluding you? Or are you just tired of programming high-resolution shapes in cumbersome assembly language? With the Pascal Animation Tools you can produce exciting, animated graphics as quickly and as easily as text.

Add life to your graphics! The Pascal Animation Tools lets you develop distinctive fonts of graphic shapes or pictures (a horse font, for instance, with stop-action pictures of the animal in various stages of running), then string these "snapshots" together in sequences that mimic movement. This approach also allows you to build a library of useful shapes that you can use over and over again in your animations.



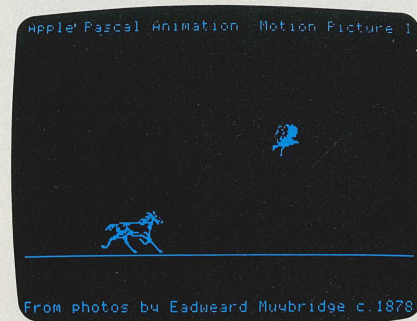
The Pascal Animation Tools:

- lets you use Pascal to write and manipulate programs with complex, animated graphics... so you save time developing software;
- allows you to print out high-resolution shapes at text speed... so you're able to create animations that behave smoothly and realistically;
- provides a ready-made, efficient way to create libraries of shapes, many of which can be animated with the same movement codes... so you reduce software development costs, and manage animation projects more efficiently.

The Pascal Animation Tools package uses a specially developed, binary input/output system (BIOS) that knits the Apple's high-resolution screen to its text facilities. This innovation allows you to create a set of images—the shapes of a bird in flight, for example—and treat it exactly like a character font.

In other words, if you let "A" correspond to the bird's "wings up" and "B" to its "wings down" shapes, a Pascal program that printed A, then B, then A,

then B (and so on) would result in a bird flapping its wings—slowly or quickly, as wished. Intermediate images could also be added to make the motion as smooth as desired.



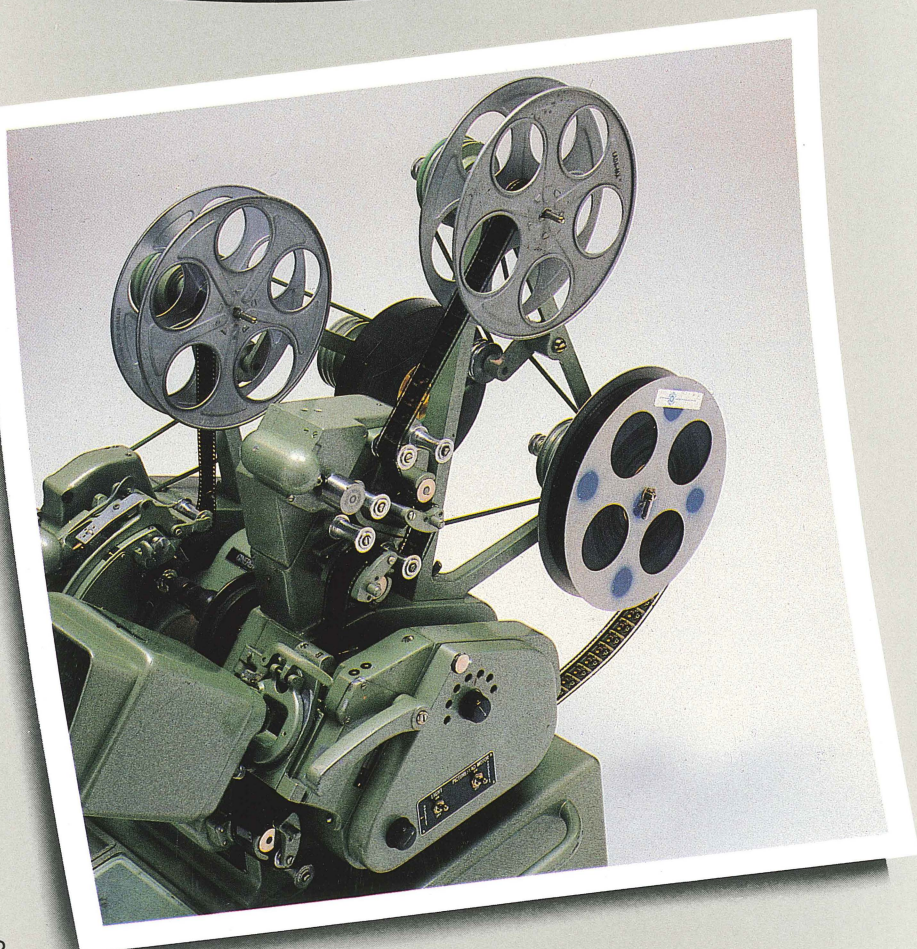
The Pascal Animation Tools package contains a number of programs, all extremely helpful for programming animated graphics. The **Animation** program—provided in source code—lets you do character cell animation under control of the Apple's HIRES1 programmable character generator. Seven demonstration programs—provided in source code—are also included in the Pascal Animation Tools package to illustrate the simplicity and flexibility of **Animation**.

Another program, **Charedit**, is a fast, powerful, high-resolution character editor which you can control with either your Apple's keyboard or game paddles. Teamed up with **Animation**, **Charedit** lets you use a variety of dramatic animation techniques.

Also included in the package are: two Pascal source programs that provide string-to-numeric conversions (either real or integer); source code examples showing how to interface the Apple Graphics Tablet to Pascal programs; and a helpful assembly language routine that lets you use Apple's Communications Interface Card to achieve bidirectional (full duplex) communications from Pascal. Detailed source code has been provided in lieu of extensive documentation.

The Pascal Animation Tools package is written in Pascal.

With the Pascal Animation package, you'll receive: 1) two Pascal Animation package diskettes; 2) user instructions.



PSORT

Solve your Pascal disk file sorting problems with PSORT, a stand-alone program that can also be incorporated into other Pascal programs as a ready-made routine. PSORT lets you sort files through a wide variety of user-defined keys, such as name, ZIP code, age, account number, and more. A unique selection option lets you further specify which records are to be included or excluded in sort and merge processes.

With PSORT, you can choose between fixed or variable-length records and fields, and text or string files—so you enjoy a high degree of programming application flexibility and convenience. You can also select all critical system parameters, including number of sort keys, files to be merged, fields per fixed-length record, characters per record, and characters per field. And full source code is provided, so you can even modify PSORT's procedures to meet your particular needs.

```
SEGMENT PROCEDURE DISTRIBUTE;
VAR
  FI : TEXT;
  FF1 : FILE OF STRINGREC;
  INREC : STRINGREC;
  INRECMAJKEY : KEY;
  SOMEONTREE : BOOLEAN;
  ROOT : NOBEPTR;
  HEAP : ^INTEGER;

PROCEDURE WRITELN(X : STRINGREC);
BEGIN
  IF TEXTINT THEN
    WRITELN(FI, ITEM)
  ELSE
    BEGIN FF1^ := ITEM; PUT(FF1)
    END
END; (* WRITELN *)

PROCEDURE REWITEX(N : INTEGER);
BEGIN
```

PSORT:

- can be called as a procedure from a user program... so you cut costs by reducing development time;
- provides up to 10 user-redefinable sort keys with mixed ascending/descending sequences... so you have comprehensive sorting capabilities at your fingertips;
- can merge up to 10 user-redefinable, pre-sorted files... so you consolidate large files more efficiently;
- supports multiple disks for input, output, and work files... so you can fully utilize diskette storage space;

- lets you supply parameters either through interactive prompting or through a control file that's set up only once... so it's easier for you and others to use the program.

```
----- PSORT [VER. 1.0] -----
COPYRIGHT : SHATTOCK & ASSOCIATES
AUTHOR : R. J. LONG

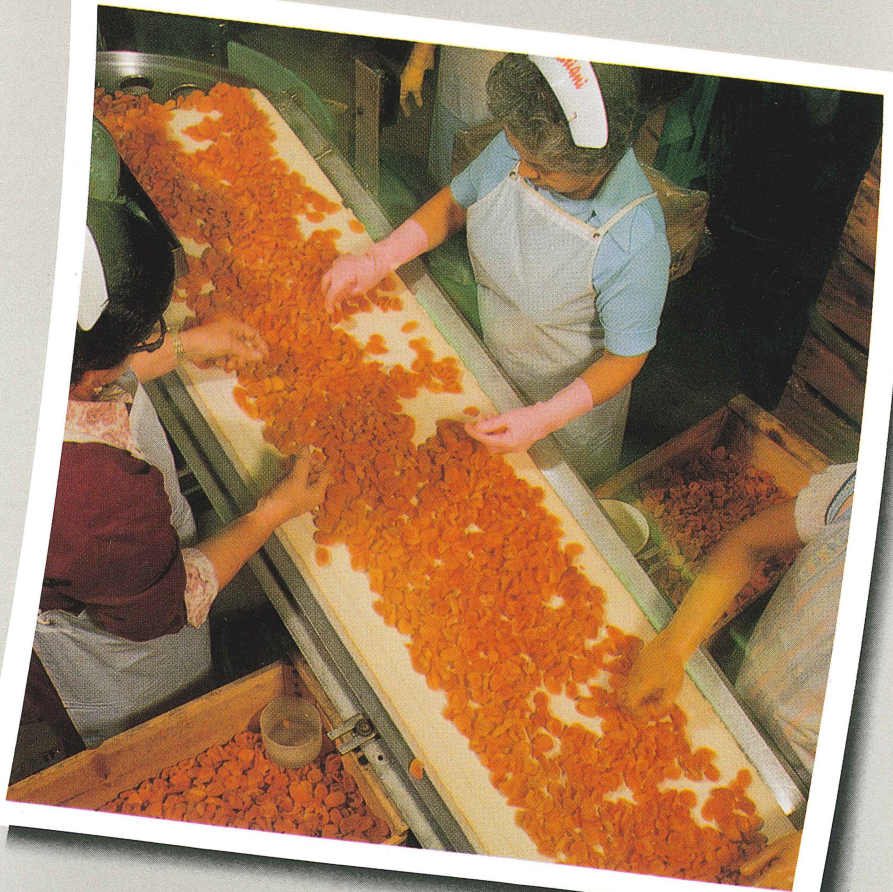
-----
PARAMETER FILE NAME (OR <RET>
FOR CONSOLE INPUT)
( TEXT WILL BE ADDED ):
SORT, OR MERGE ONLY? s
INPUT FILE NAME: pasc81
IS IT TEXT OR FILE OF STRINGS?t
OUTPUT FILE NAME: output
IS IT TEXT OR FILE OF STRINGS?t
VOLUME NAME FOR INTERMEDIATE
FILES (OR RET):
```

Anyone with Pascal programming experience will find PSORT easy to use. Just compile the PSORT programs—provided in Pascal source code—and execute them in the usual way. PSORT leads you step-by-step through the sorting process. Merging is easily done, too. Just enter the names of the input files to be merged, whether they reside on the same or different disks.

Using PSORT's Include/Exclude option is simple and straightforward. Suppose you're sorting a mailing label list, and you want to exclude all labels in a certain ZIP code area. Just indicate "E(xclude)" when prompted, specify the field number, and enter the excluded ZIP code as the selection value. PSORT will automatically omit any label with the undesired ZIP code when sorting.

PSORT is written in Pascal.

With the PSORT package, you'll receive: 1) PSORT program diskette, containing source code, executable code, a parameter program to set up a control file, and a sample Pascal program that uses PSORT as a procedure; 2) PSORT user manual.



"The World's Greatest Blackjack Program"

Midnight: Las Vegas. You've got a hundred dollars riding on this bet. You hold a king and a two; the dealer shows a three. What to do?

You'd know if you had practiced with "The World's Greatest Blackjack Program." The program combines high-resolution graphics with a professional card counting system to teach you the best betting and playing strategy. It turns your Apple into your own home blackjack casino, complete with built-in dealer and opponents.

Based on **The World's Greatest Blackjack Book** by Dr. Carl Cooper and Dr. Lance Humble, the program coaches you in blackjack basics as well as the "Hi-Opt I" card counting strategy. Unlike other professional systems, Hi-Opt only requires you to count three card categories, so even the casual user can gain proficiency with it.

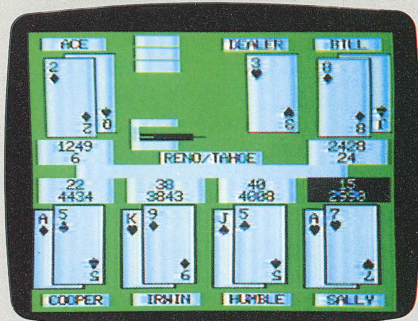
You can use the program to practice whenever you want, or let your Apple deal the cards and tally bets for your next game among friends.

"The World's Greatest Blackjack Program":

- allows you to choose from nine standard sets of rules (from Las Vegas, Reno, Atlantic City, and

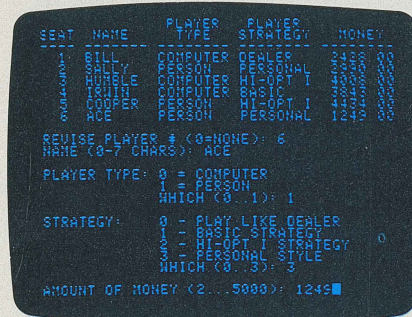
the Bahamas), or to introduce other standards... so you can simulate the rules at any casino;

- teaches basic blackjack strategy as well as the Hi-Opt card counting system... so you acquire professional-level blackjack tools;
- measures response time to quiz questions, then brings back problems that held you up the longest... so you get extra practice at troublesome blackjack situations;
- acts as the dealer for you and up to five other real or imaginary gamblers... so you can use it for both social and solitary play.



To play "The World's Greatest Blackjack Program," simply add your name, strategy, and stake to its built-in list of programmed players, then enter the **Play Blackjack** command. A high-resolution color display will appear on the screen while the computer shuffles the cards, asks for bets, and then deals. When it's your turn, you can choose any standard casino option—hit, stand, double, pair-split, cash in on a natural, or ask for insurance.

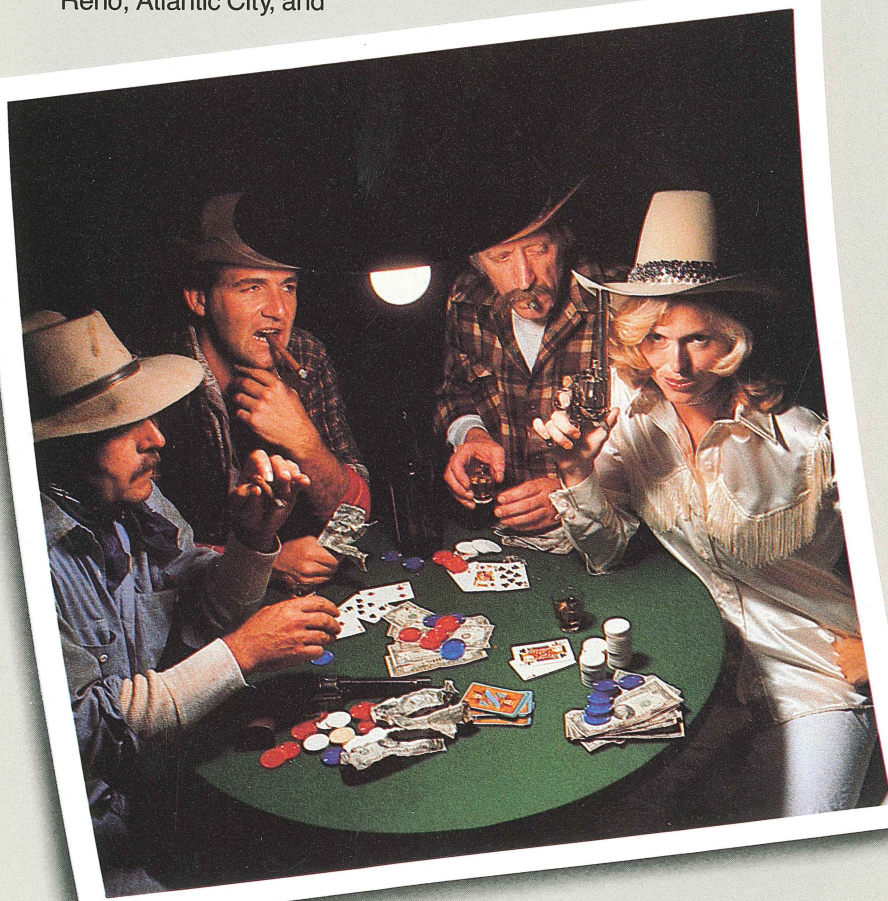
The program allows you to change the rules or the players automatically. You can either set up your own rules or choose from pre-set options.



Two built-in practice drills help you learn advanced playing techniques that can improve your game. The **Strategy Drill** teaches both basic strategy and the Hi-Opt I system in a step-by-step instruction program. The **Count Drill** helps you build speed and expertise with Hi-Opt counting, so you'll be ready for even the fastest dealer. Your cards are quickly displayed on the screen and then erased, so you only get a brief look at each. You control how fast the cards appear—up to 75 hands per minute.

"The World's Greatest Blackjack Program" is written in Pascal, but a special run-time operating system makes it possible to run the program without the Apple Language System.

With "The World's Greatest Blackjack Program" package, you'll receive: 1) program diskette; 2) back-up diskette; 3) instructions.



Personal Finance Manager

Wonder where the money went? Personal Finance Manager is an easy-to-use family budget management program that puts important financial information at your fingertips. It helps you keep better records of expenditures, analyze your spending patterns, validate checkbook statements, and maintain tax records. And you don't need any special expertise to use it, either.

With Personal Finance Manager you can organize your family's finances so they make sense, while at the same time sparing yourself the clutter and confusion of paperwork. On a single diskette, you can store a full year's worth of family financial records (200 entries a month for 12 months)—including detailed information on all check transactions, deposits, cash and credit card expenditures. You can even classify expenditures as tax deductible, consolidate the information for easier itemization when filing taxes, and “roll over” automatically to the next year.

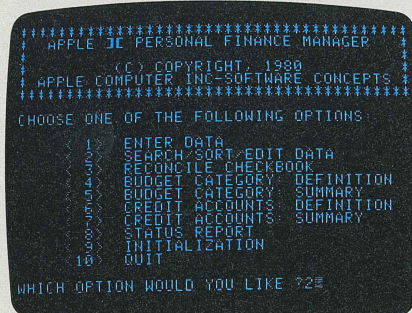
Personal Finance Manager:

- lets you define or modify up to 24 budget categories... so you can compare spending habits (by cash, check, or credit card) with budget limits you've set;
- lets you define or modify as many as 12 credit card expenditure accounts... so you know instantly just how much money you owe;
- provides monthly and year-to-date summaries of expenditures... so you can tell at a moment's glance how realistic your budget is;
- plots budget category activity, providing quick graphic comparisons of dollar amounts;
- lets you print out information at the touch of a key... so you can take your financial records to the bank, the IRS, or wherever they're needed.

Keeping a budget that works is not just a matter of motivation—it's based on your ability to access and maintain financial information easily. Personal Finance Manager lets you do exactly that.

Using the program's **Enter Data** option, you can add or modify financial transactions—such as cash and credit card expenditures—quickly and easily. The **Data Search/Sort** option provides simple listing of monthly budget entries you specify, such as all tax-deductible expenditures for any particular quarter. This is extremely useful when you file taxes, for example, because it allows you to quickly isolate the information you need.

Another helpful option, **Reconcile Checkbook**, lets you account for all checking account transactions that appear on your bank's monthly statement. The program will indicate the amount of any discrepancy it detects, helping you determine the source of the error.

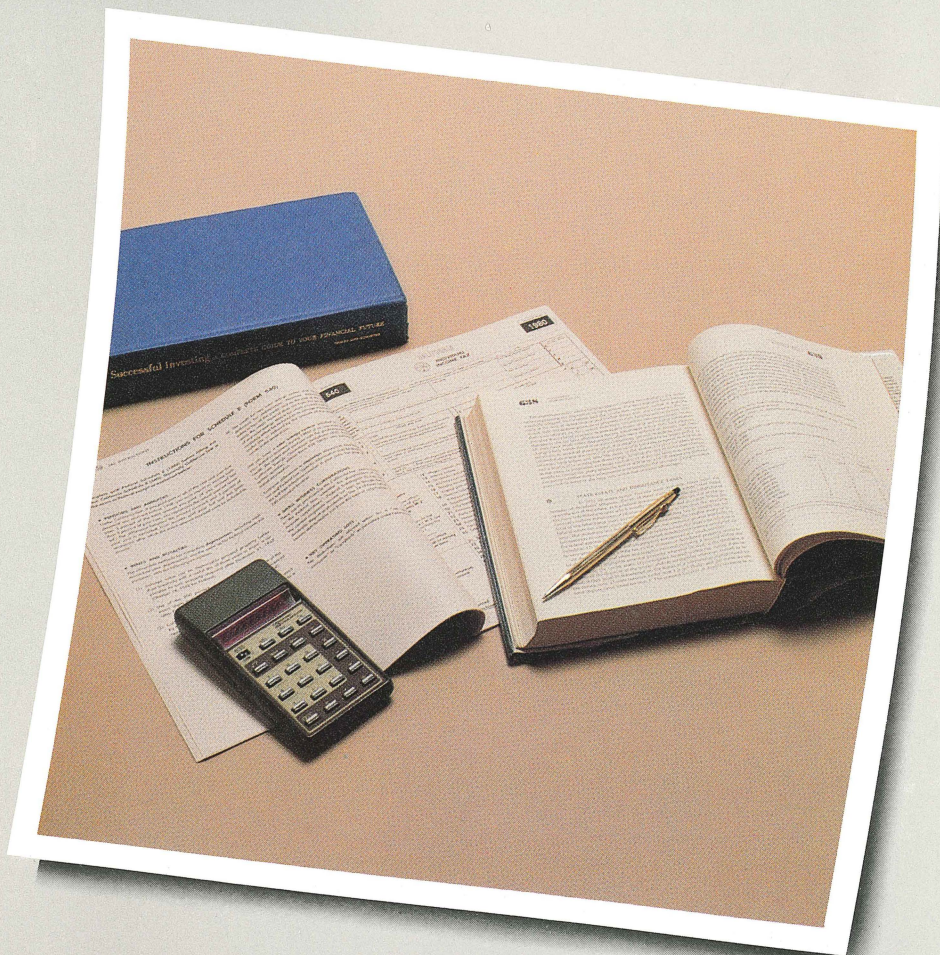


Budget Category Summary lets you analyze the status of any budget area you've defined. Three different summaries are available, two of which can be plotted as low-resolution graphs. **Credit Account Summary** works in a similar fashion, providing summaries and graphic presentations of defined credit accounts so you can readily analyze your charging habits.

In addition, a **Status Report** option shows you the amount of monthly disk space you've used, and lists the existing number of budget categories and defined credit accounts. The **Initialization** option lets you clear your Personal Finance Manager diskette of old financial records, and **Quit** allows you to exit the program without erasing any of your files.

Personal Finance Manager is written in Applesoft BASIC.

With the Personal Finance Manager package, you'll receive: 1) Personal Finance Manager program diskette; 2) back-up diskette; 3) instructions.



Utopia Graphics Tablet System

Liberate the masterpiece within your Apple Graphics Tablet. Utopia Software's hi-res Graphics Tablet System expands your Graphic Tablet's capabilities, giving you the features and convenience of larger graphics systems—at a fraction of the price.

The Apple Graphics Tablet turns your Apple II system into an artist's canvas. The tablet offers an exciting medium with easy-to-use "tools" and techniques for creating and displaying pictorial information. When used with the Utopia Graphics Tablet System, the number of creative alternatives available to you multiplies before your eyes.

The Utopia Graphics Tablet System includes a wide array of brush types for creating original shapes and functions, and provides 64 color options that can generate 40 unique brush shades. It also has programs to help you design patterns, charts, graphs, and animated screens, as well as a digitizer option that lets you calculate the distance and area of any shape traced on the Graphics Tablet.

Utopia Graphics Tablet System:

- provides a relatively easy way to create intricate designs, brilliant colors, and animated graphics...

so you obtain precisely the effects you want in the shortest amount of time;

- allows you to save "galleries" of canvases... so you can make a wide variety of home, office, and classroom presentations;
- gives you pen-controlled editing capabilities... so you can save time by refining rather than redrawing canvases.

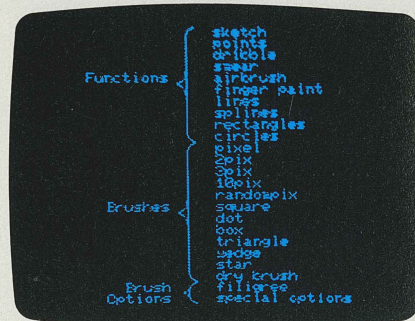


The Utopia Graphics Tablet System frees you to experiment with shapes, designs, and colors. The author, recording artist and record producer Todd

Rundgren, has developed some extraordinary graphics programs for the system's **Paintbox**, **Digitize**, **Make-a-Brush**, **Shaper**, **Fill In**, **Global Options**, **Label/Graph**, **The Gallery**, and **Animate** menus.

"I want to make computerized graphics as uncomplicated and as much fun as possible, while still allowing users maximum control over their Apple II Graphics Tablet hardware," says Rundgren.

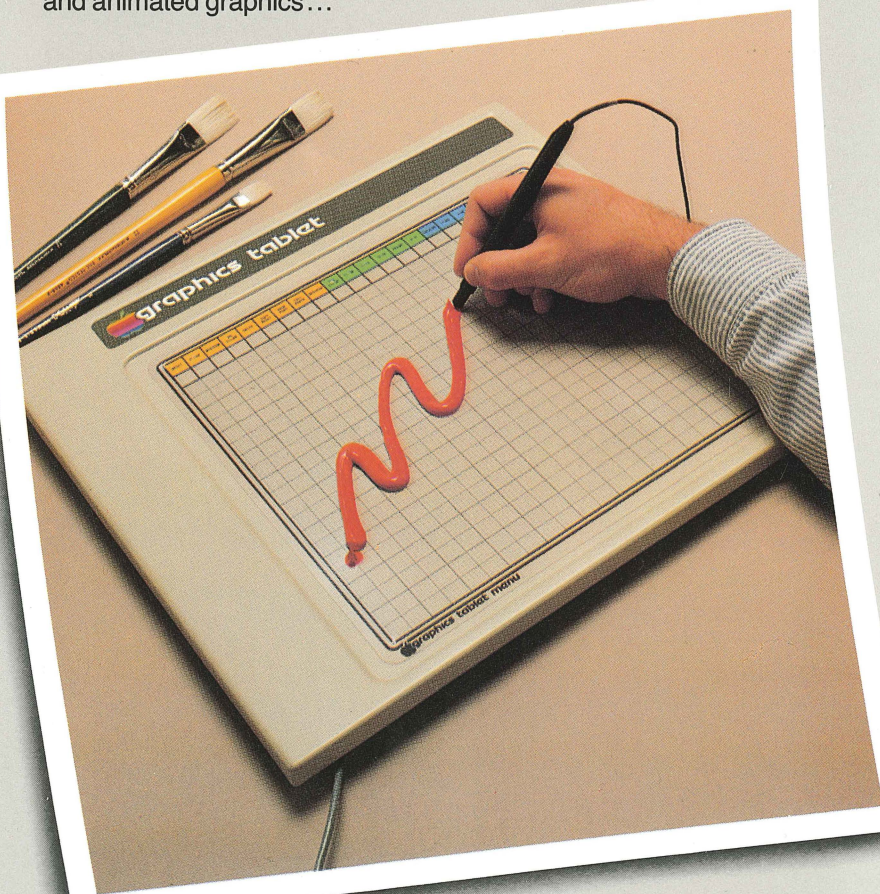
Make-a-Brush's Finger Paint program, for example, combines your chosen palette color with its "complement," such as blue with green. It then draws this new color on the screen in a ragged, finger-painted design. The **Paintbox** menu's **Dyna-size** feature allows you to expand and shrink any shape you're working with for your artistic convenience. With the **Append** option from the **Shaper** menu, you can assemble complex new shapes using parts of original or traced canvases stored in memory.



The Utopia Graphics Tablet system is highly interactive. Its menus, sub-menus, colors, and graphics options can be selected at the touch of your pen-controlled cursor. Simply press the pen down outside the tablet's grid whenever you want to enter a menu, and without menu overlays or keyboard commands, your menu will immediately appear. It lets you build a library of useful shapes to access quickly and use over and over again.

The Utopia Graphics Tablet System is written in Applesoft BASIC.

With the Utopia Graphics Tablet System, you'll receive: 1) Utopia Graphics Tablet System master diskette; 2) back-up diskette; 3) user manual.



Diet Analysis

Are corn flakes acceptable on a low-cholesterol diet? Are bananas fattening? How much protein is there in an apple?

Diet Analysis helps you analyze your diet for carbohydrates, calories, and protein, as well as for 21 vitamins, minerals, and other components, such as saturated fats and fiber. The program produces daily analyses, weekly averages, and monthly comparisons showing three different data breakdowns. It lets you monitor your intake of specific elements, or keep track of your overall diet. It also compares your diet with USDA recommended daily requirements for your age and sex.

Diet Analysis allows you to shelve your nutrition charts, calorie tables, and vitamin schedules—and monitor your diet easily and accurately on your Apple computer.

Diet Analysis:

- stores data for up to 10 people... so you can use it for your whole household;
- tracks your intake of specific elements, such as sodium... so you can maintain dietary limits prescribed by your doctor;
- lets you use the power of your Apple II to calculate diet information... so you save hours of calorie counting and nutrition analysis;
- compares your vitamin and mineral consumption with USDA recommended requirements... so you can monitor vital aspects of your diet;
- keeps track of nutritional data for 700 different foods... so you can analyze almost anything you eat.

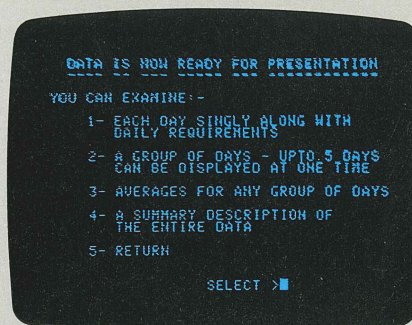
Diet Analysis automatically analyzes your diet for calories, carbohydrates, protein, cholesterol, saturated fats, unsaturated fats, total fats, fiber, iron, calcium, magnesium, phosphorus, sodium, potassium, folic acid, niacin, pantothenic acid, and vitamins A, B1, B2,

B6, B12, C and E. Doctors may find Diet Analysis useful for quickly evaluating patients' dietary deficiencies.

Simple entry displays on your video screen lead you through the program—helping you enter your daily intake, compute and display analyses, and update general information, such as weight or level of physical activity.

The food entry procedures are thorough and flexible. You can make your entries at your convenience, once a day, or after each meal. You can use the **Quick Entry** option to set up standard meal menus for some or all of your daily meals. With the **Recipe** routine, you can input recipe ingredients which are not in the program's data base.

The **See Data** routines let you analyze your diet in several different ways. You can study nutritional breakdowns for the past 30 days of data entry, either one day at a time or in groups of consecutive days. The program automatically calculates averages for each 15-day period, and stores the data for your inspection. You can also calculate averages for any time period you choose, and display up to five averages at once.



A special weight analysis routine calculates your ideal weight on the basis of your height, sex, and frame size. The weight summary will then itemize your changing weight, caloric intake, and level of activity over any time period you choose.

Diet Analysis is written in Applesoft BASIC.

With the Diet Analysis package, you'll receive: 1) Diet Analysis master programs diskette; 2) back-up diskette; 3) Diet Analysis Composition diskette; 4) instruction manual.



Business people shouldn't have to depend on paperwork in order to stay well-organized. If your desk is strewn with calendars, reminders, and lists of things to do, chances are your productivity's suffering.

Ideal for personal as well as business use, Agenda Files encourages a punctual approach to meeting responsibilities. With it, you can keep your future in order—and your daily schedule running on time.

- permits flexible data entry ... so you can type in any descriptions you want, without fixed-format constraints;
- allows you to search, re-order, and selectively print out file listings ... so you avoid time-consuming clerical activity;
- lets you store unscheduled events into its File for the Future ... so you're able to keep track of tentative plans, then later determine their timing.

```

      C F      TO CONSULT CALENDAR
      P F      TO CONSULT A FILE
      P F      TO PRINT A FILE
      P F      TO RE-ORDER A FILE
      S E      TO SEARCH A FILE
      S E      TO ENTER NEW ITEMS
      C L      TO CLEAR A FILE
      T O      TO SAVE ITEMS ON DISK
      I N      TO RE-INITIALIZE

FILE: _____ NUMBER OF ITEMS: _____

1 TODAY (FRIDAY, 4.3.81) 5
TOMORROW (4.4.81) 1
THE DAY AFTER TOMORROW 1
THE FUTURE (4.6.81 AND BEYOND) 4
TO DO LIST 1
THE QUARTER 6

```

```

N FOR NEXT ITEM
L FOR LAST (I.E. PREVIOUS) ITEM
G TO DELETE THIS ITEM
P TO PRINT THIS ITEM
T TO TRANSFER THIS ITEM
C TO CONSULT CALENDAR
R TO RETURN TO THE LIST OF OPTIONS

(THIS ITEM IS 6 WEEKS AWAY)

AGENDA FOR THE FUTURE
MONDAY, 4.15.81, AND BEYOND

FRIDAY, 5.15.81 (A.N. 5) ORDER YOUR
SPECIAL DELIVERY SOFTWARE TODAY.

```

Agenda Files is written in Applesoft BASIC.

With the Agenda Files package you'll receive: 1) Agenda Files master diskette; 2) back-up diskette; 3) user instructions.



The Wreck of the B.S.M. Pandora

Emergency in deep space! Returning to base after a long mission gathering exotic alien specimens from the frontiers of human exploration, the B.S.M. Pandora has just been badly damaged in a freak accident. You are one of the crew members abruptly jarred out of a peaceful, cold sleep in suspended animation.

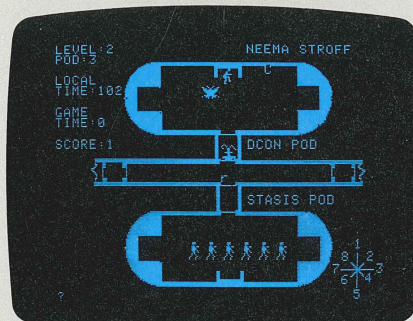
Suddenly, you face a heart-pounding race against time to repair the Pandora before it fails utterly and you meet certain death. Working with fellow crew members, you attempt to repair the desperate damage problem as you ward off attacks by once-captive alien creatures now freely roaming Pandora's corridors and "pods" (cabins).

This is The Wreck of the B.S.M. Pandora, an exciting, problem-solving, science fiction adventure game designed for one to seven players, teenage or older.

The Wreck of the B.S.M. Pandora:

- provides unlimited challenge, because each time you start a new game, the ship's layout is different, and crew and aliens have different strengths and weaknesses;
- invites participation by one to seven players, so you can use for social or solitary enjoyment;
- lets you interrupt and save games, so you can stop and resume play whenever you like;
- offers five levels of difficulty to challenge both beginning and seasoned players.

To play The Wreck of the B.S.M. Pandora, you assume the role of one or more of the ship's crew. Other players also operate one or more crew characters. Then, making use of the deck plan shown on the computer's monitor, you race against time to locate and repair the pods necessary to restart the ship. You collect points for each alien you kill or stun and return to captivity.



Each time you start a new game, you'll find the ship arranged a little differently, a crew with different strengths and weaknesses, and a collection of aliens with varying ferocities. Equipment, weapons, tools, and robots in different states of repair lie scattered about the multi-level ship as well. They are there for you to find and use as you attempt to repair the ship's damage and defend yourself against alien creatures and short-circuited robots on the attack.

The Wreck of the B.S.M. Pandora is written in Applesoft BASIC.

With The Wreck of the B.S.M. Pandora you'll receive: 1) Pandora master diskette; 2) back-up diskette; 3) instructions.



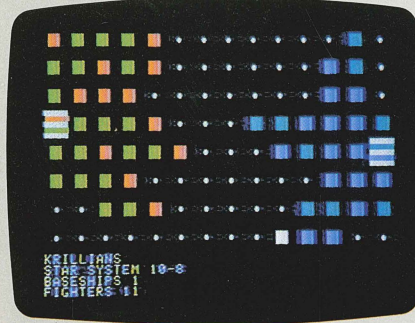
Galactic Wars

Man your battle stations! Galactic Wars is a captivating game of strategy and skill that demands your boldness and cunning. As commander and warrior, you'll position baseships, build your fleet of fighter craft, and try to outmaneuver and outshoot your opponent in battle. With bravery and persistence—and if The Force is with you—you may ultimately capture the enemy's capital star system, establishing your supremacy in the galaxy.

Galactic Wars:

- allows you to start playing with small, medium, or large fighting forces... so you control the approximate length of the game;
- offers a pre-game training mode... so you can improve your fighting skills before entering the game's battle phase;
- lets you save games in progress... so you can resume play at your convenience.

Galactic Wars requires two players, teenage or older, and the use of game paddles. It pits two long-standing, outer space foes—the Centrons and Krillians—against each other in tactical combat. The object of the game is to capture your opponent's capital star system.



Each player defends a capital while trying to capture his or her opponent's. When taking the offensive, you try to advance your baseships and fighters toward the enemy's capital system, occupying sectors of the galaxy as you proceed. This strategy phase of the game is played on a multicolored

mapboard of the galaxy. It is most fun when played using a color television or monitor.

The battle phase begins when a sector is occupied by opposing forces. Two rival fighter craft at a time are matched in laser combat (on a 3-D-like, star-studded, high-resolution screen). Success depends on your shooting skill and the size of the fighter craft fleet you already have garrisoned in the sector. As you swallow up more and more sectors and zero in on the enemy capital, control of the galaxy becomes yours!

Galactic Wars is written in assembly language.

With the Galactic Wars package, you'll receive: 1) Galactic Wars program diskette; 2) back-up diskette; 3) instructions.



Artist Designer

Set aside your paints, brushes, and canvas—now you can create works of art with your Apple II system! Artist Designer is an exciting program that makes the most of Apple's superb color graphics capabilities. Designed by an art instructor for computer art enthusiasts, it lets you "draw" and "paint" virtually any color graphics composition you wish, using your color monitor or color television screen as a "canvas."

Unlike more conventional graphics systems, Artist Designer produces irregular shapes, curves, and other forms. And you can use colored dots to fill defined areas or to introduce textures. The five vibrant colors at your command—green, yellow, orange, violet, and red—can also be mixed with black or white to produce hundreds of color tints, mixtures, and shades. You can save your masterpieces, too. Up to 35 finished or in-progress compositions fit on a single storage diskette.

One of Artist Designer's unique features redraws your designs, step-by-step—so you can "re-run" your process of creation and examine the artistic choices you made. This feature can likewise be used to experiment with "art animation," an exciting new performance art.

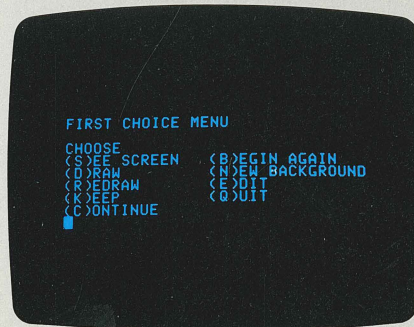
Artist Designer:

- has a special Link feature that lets you "link together" designs from different storage files... so you can build detailed compositions piece-by-piece;
- allows you to create "slide shows" of designs... so you can make tutorial presentations for use in the classroom, office, or anywhere else;
- provides complete editing capabilities, including selective erase/redraw features... so you save time by refining rather than redrawing compositions.

Artist Designer uses menus and display prompting to give you the control you need as an artist. The program's main menu allows you to draw, edit, erase,

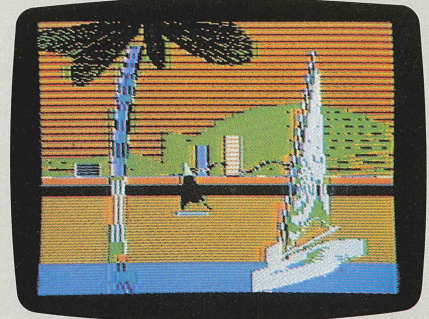
or save compositions, and to choose or change their background colors.

Once you've made a selection from the main menu, sub-menus let you focus specifically on what you want to do. Selecting **Draw**, for instance, produces a sub-menu that allows you to draw with either blocks, dots, lines, curves, or semicircles. Other sub-menus let you redraw, edit, fill in shapes with colors, and link designs stored in separate files.

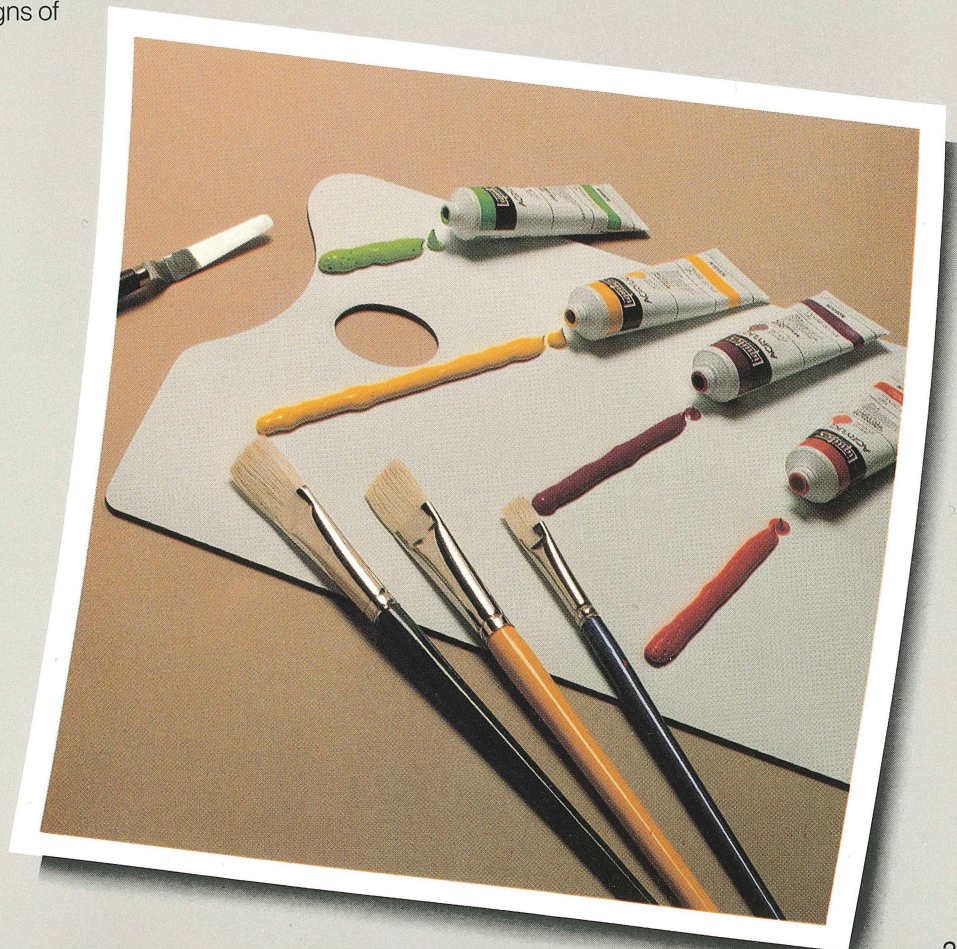


Artist Designer comes with 10 predrawn designs, which you can modify and use in your own compositions. A special "playback" feature will redraw successively—and continuously, if you like—up to 25 designs of

your choosing. Artist Designer's **Playback** feature lets you create a wide range of self-operating displays and exhibitions, without programming a line.



Artist Designer is written in Pascal. With the Artist Designer package, you'll receive: 1) Artist Designer master diskette, containing modifiable demonstration designs and a disk initialization program; 2) back-up diskette; 3) instruction manual.



Musicomp

Looking to express the music in your soul? Roll over, Beethoven! Musicomp provides an electronic music sheet that lets you compose, arrange, store, and play your very own tunes. Use the Apple's built-in speaker or an external sound system. Musicomp also turns your Apple II system into a coin-free "computer jukebox," with 24 sample selections that demonstrate the kinds of compositions you can create with the program.

If you've had any training in music or music theory, you can quickly begin using Musicomp to play, record, and edit your own compositions. And even if you don't have much musical aptitude, you can enjoy Musicomp's pre-programmed tunes while showing off your Apple in a unique way.

Musicomp:

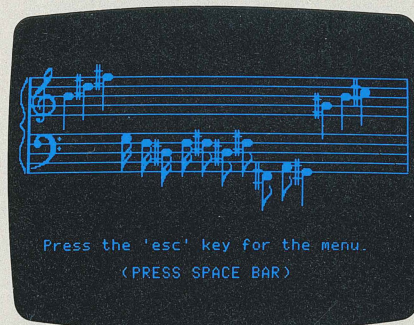
- lets you edit your compositions note-by-note... so you get precisely the music you want;
- displays each note it plays on a music staff entered on your screen... so you learn music symbols as you hear their corresponding sounds;

- can be connected through the cassette output jack to a stereo system... so you can use your personal computer to play music with or without adding expensive equipment.



Musicomp's **Play** and **Create** options allow you to key in your own music, edit it, store, recall, and play it back. Use your Apple keyboard as you would a piano keyboard—over a full four-octave chromatic range.

In addition to setting key and time signatures, you also set the tone of every piece you create. Musicomp has three "voice" and four "timbre" settings that alter tone, allowing you to arrange as



well as compose. One combination of settings produces a tone suggestive of woodwinds, for example, while another combination sounds like a harpsichord.

Musicomp is written in Integer BASIC.

With the Musicomp package, you'll receive: 1) Musicomp program diskette; 2) back-up diskette; 3) instructions.



Supermap

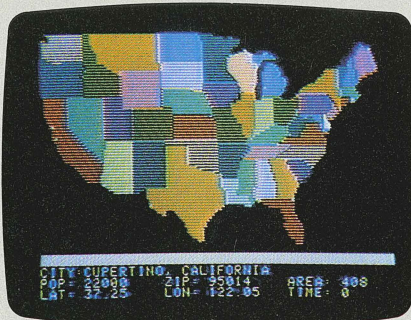
Wish you could make geography more enjoyable and capitals more captivating? Try Supermap, an easy, fun way to learn about the continental United States. Simply type in the name of a city. If it's contained in the program's data base (which has over 300 cities), Supermap will show you where the city's located on any one of four full-color maps, and provide you with some important facts about the city—including population, ZIP code, longitude, and latitude.

Supermap:

- displays the distance between any two cities in both miles and kilometers ... so you become familiar with metric equivalents;
- puts maps, facts, and figures at your fingertips ... so you save time searching through atlases and almanacs;
- electronically highlights the locations of cities ... so you're left with a lasting sense of geographic relationships.

Supermap's main menu lets you choose five options. The **State Capital Quiz** prompts you with a state name, then waits for you to spell correctly the corresponding capital name. If you're

right, Supermap blinks the city's location and beeps that you're correct; if you're wrong, you get two more guesses before Supermap fills you in. A special **Scan Cities** option lets you run through the entire list of cities in the data base at your own speed, lighting up locations and beeping as you go.



Other options let you view the continental United States in four different ways. The **State Map**, with the 48 states highlighted in dazzling colors, allows you to study the states in relation to one another. A **Features Map** displays the five dominant U.S. terrains: cropland, forest,

grass, desert, and swamp. When you instruct Supermap to locate a city on the **Features Map**, you'll have a good idea whether its inhabitants grow cacti or cucumbers. The **January and July Sun Maps** show mean daily solar radiation (in langleys) at ground level during those months.



Supermap is written in Applesoft BASIC.

With the Supermap package, you'll receive: 1) Supermap program diskette; 2) back-up diskette; 3) instructions.



Speed Reader

Do you often find yourself swamped with too much to read? Speed Reader can help you double—even triple—your reading speed...and increase your comprehension as well.

Most people read inefficiently, plodding through material one or two words at a time. Speed Reader's challenging lessons and exercises are designed to correct sluggish eye movements and sharpen peripheral vision, so you can absorb information faster than ever before. It's an ideal program for students and business people with lots of reading—and little time—on their hands.

You'll find in Speed Reader a complete reading development course, containing exercises that help build your reading speed—with just 30 minutes' practice each day.

Speed Reader:

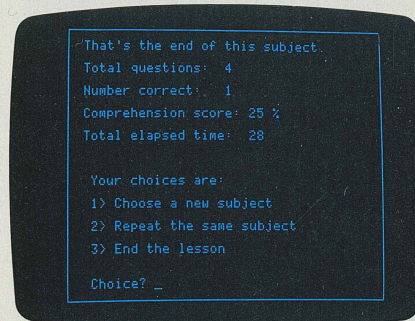
- teaches you to rely on peripheral vision to take in groups of words, so you read more efficiently;
- offers 10 increasingly difficult practice sessions that let you build reading skills steadily;
- measures your reading speed, so you can gauge your progress;

- includes quizzes after each lesson, so you can check your understanding of each passage while you build speed;
- provides interesting and informative exercises with numerous readings that cover a wide range of topics.

Speed Reader provides 10 stages of exercises for you to master. Each stage builds on skills you've developed in earlier exercises. Your lessons will begin with **Warm-Up Exercises**. They flash single letters at each side of the screen, at varying speeds, to teach you to take advantage of your peripheral vision. As you develop speed, you'll find that peripheral vision makes it easy for you to read large groups of words with a single glance.

Eye Movement Lesson is designed to help you "unlearn" lazy eye movements that make reading a time-consuming chore. Select any one of 20 articles to read, at a reading speed you feel comfortable with. Each article breaks down into sentence fragments that flash left-to-right in zig-zag fashion down the margins of your screen. Using peripheral vision, you "slalom" through the article—much faster than if you were reading only

one or two words at a time. A multiple-choice quiz tests your comprehension at the end of the article.



Column Reading Lesson offers the same selection of 20 articles, but line by line in single-column format down the center of the screen. Again, choose a story and reading speed. Use your peripheral vision and newly acquired eye movement techniques to zip through the selection; then complete the multiple-choice quiz to check your success in both speed and comprehension.

Reading Passage Lesson offers 14 passages. Select one, indicate your reading speed, and specify a column width from 1 to 12. (The wider the column, the more your speed reading skills will be tested.) Then see how you do on the quiz.

Speed Reader is written in Applesoft BASIC.

With Speed Reader, you'll receive:

- 1) Speed Reader master diskette;
- 2) back-up diskette;
- 3) data diskette;
- 4) instruction manual.



Hand Holding BASIC

Have you wanted to try programming in BASIC, but wished there was an easier and more effective way to learn? Hand Holding BASIC is for you.

A new full implementation of the ANSI 78 Minimal BASIC interpreter for the Apple II, Hand Holding BASIC employs a dramatic, graphic approach to teaching programming and debugging in BASIC. As you write programs, Hand Holding BASIC not only checks your input character-by-character, but also signals errors and displays suggestions to correct them. And when you run a completed program, Hand Holding BASIC lets you use six special display screens to follow the computer's every step.

If you're just beginning to learn the BASIC language, Hand Holding BASIC will give you a clear understanding of how its commands, statements, and other features work together to form programs. As you become more familiar with the language, you can use Hand Holding BASIC to give you a "play-by-play" view of your favorite programs, and to help improve both your programming and debugging abilities.

Hand Holding BASIC:

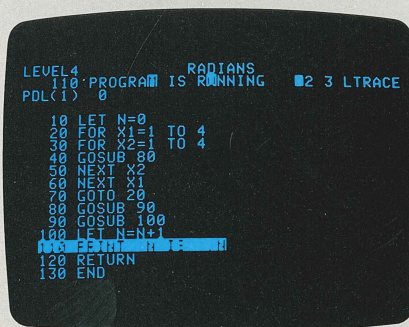
- automatically checks your input, character-by-character... so you save time locating mistakes and learning correct syntax;
- provides a complete, easy-to-use debugging environment... so you learn how to debug programs even as you learn how to write them;
- uses special displays to monitor how your Apple interprets your BASIC programs... so you spot awkward routines more easily, and learn how to write more efficient programs.

Hand Holding BASIC has four distinct learning levels that let you learn BASIC in stages—and at your own pace. You choose the programming level you want.

Level 1 encompasses arithmetic expressions only, and syntax checking restricts itself to your use of numbers, pluses and minuses, asterisks, obliques, left and right parentheses, and carriage returns. In **Level 2**, simple variables are added, along with the corresponding syntax-checking abilities. **Level 3** programming introduces powers and functions. And when you choose **Level 4**, ANSI Minimal BASIC becomes available to you—along with complete syntax

checking on all characters entered. **Level 4** also automatically triggers display of a helpful selection array (which shows valid "next" characters) if you make two successive errors.

Hand Holding BASIC provides six special display screens that monitor programs as they run on your Apple. You control execution speed, which can be slowed all the way down to single-step mode. You can also switch back and forth between display screens.

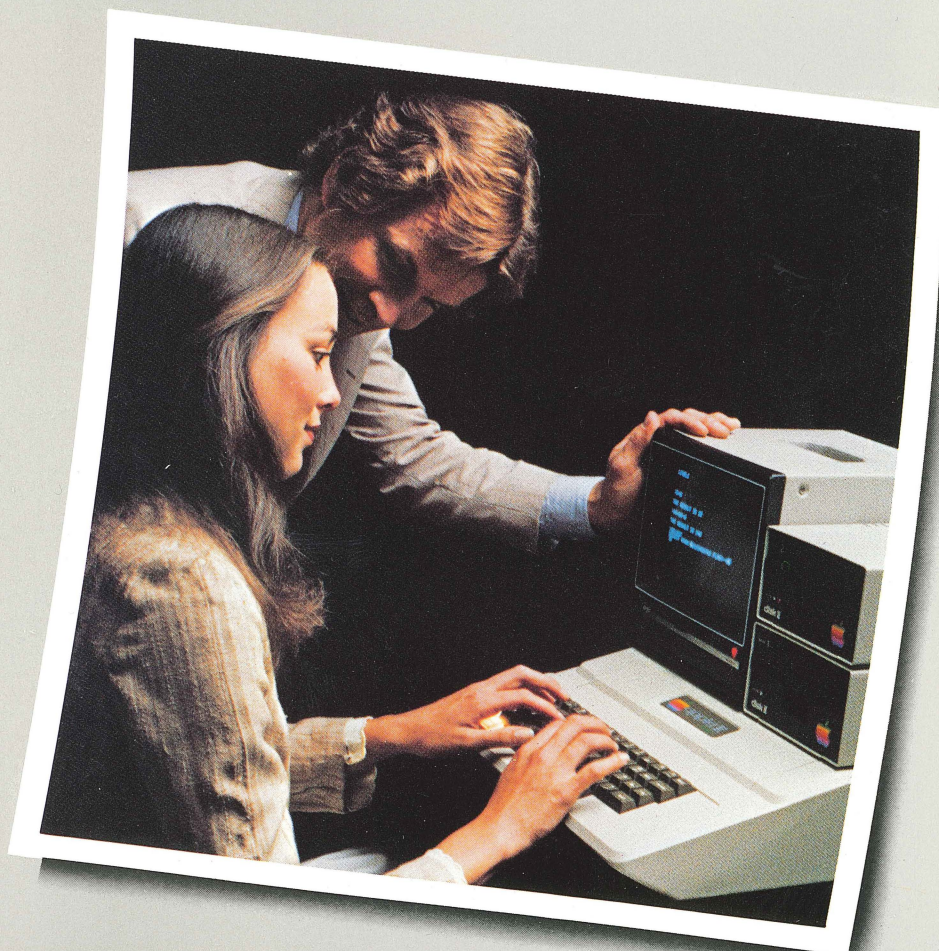


A **Command Screen** is used to enter stored programs and commands, and an **Execution Screen** simply displays output from print statements in your program. The **Line Trace Screen** shows control passing through your BASIC statements, while the **Chronological Trace Screen** presents a scrolled display of source statements as they're being interpreted. A **Monitor Screen** shows the return stack, and displays monitored variables. And a **For Loop Screen** displays information about the interpretation of "FOR" and "NEXT" statements.

Hand Holding BASIC provides a sophisticated debugging environment, too. You're able to set or clear breakpoints on statements; to give cross-reference listings for variables or line numbers; and to stop or restart at will.

Hand Holding BASIC is written in assembly language.

With the Hand Holding BASIC package you'll receive: 1) Hand Holding BASIC master diskette; 2) back-up diskette; 3) user instructions.



Moptown

Come to Moptown, and join in the Moptown games!

Youngsters visiting Moptown will discover hours of learning enjoyment with a collection of fun and interesting logic games they can play at home or in the classroom. Parents and teachers introducing children to Moptown will discover a great way to sharpen youngsters' reasoning and conceptual skills.

Moptown is a self-paced learning program that combines the Apple II's sound and color graphics with a delightful community of Moppets—16 whimsical characters, each different, who have turned all the "rules" that govern Moptown into 11 absorbing games.

Recommended for children four and up, Moptown's games offer challenges at a number of learning levels. The easiest games help very young children draw comparisons between simple graphic images. The more difficult games offer more complex tests in deductive reasoning, association, and concept development.

Moptown:

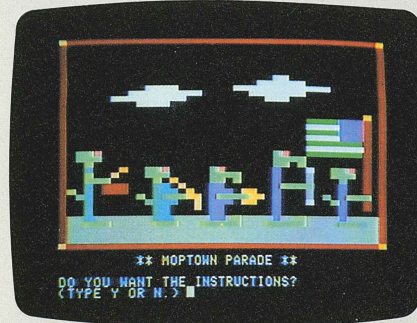
- teaches basic reasoning skills that children can transfer to every other discipline;
- is easy for young children to use, because only simple keyboard commands are required;
- provides unlimited opportunities to improve skills, because it generates new problems to solve with each new game;
- uses colorful graphics and music to provide immediate feedback with each game move, reinforcing correct decisions;
- offers games for one and two players, so children can use it for social or solitary play.

Moptown's main menu lets children choose among 11 games. All of them involve the colorful, fanciful Moppets (and sometimes their cousins), who share certain attributes. Each is either tall or short, fat or thin, dressed in red or blue, and either a big-footed Bibbit or tailed Gribbit.

The first and simplest game, **Make My Twin**, challenges youngsters to create a twin for the Moppet shown on

the screen. Using simple keyboard commands, children specify characteristics for the Moppet, and the Apple II will draw the Moppet specified.

Other games—**Who's Different?** and **Who's the Same?**—are patterned after matching games in school. Players must choose which, in a group of Moppets, is different, or which trait is the same for all the Moppets in the group.

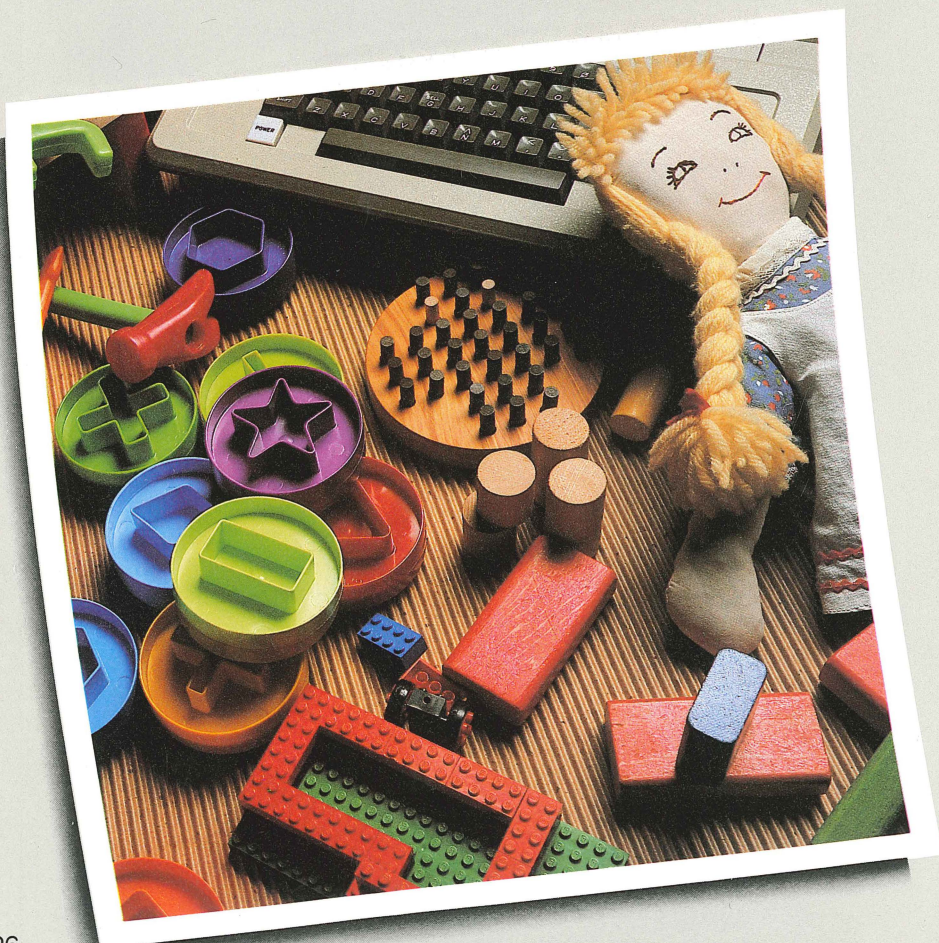


Other games invite children to arrange a **Moptown Parade**, change one Moppet into another in just three moves, and guess the rules for membership in the **Moptown Clubhouse**. More difficult is **Moptown Hotel**, a game for two players. Each tries to register the most Moppets into the hotel, but rules govern which Moppets can stay in which rooms. Players must try to comply with the rules as they register hotel guests.

Moptown is written in Applesoft BASIC.

With Moptown, you'll receive:

- 1) Moptown diskette;
- 2) back-up diskette;
- 3) user instructions.



Magic Spells

A-b-r-a-c-a-d-a-b-r-a — a program that turns children into spelling wizards!

In the Kingdom of Magic Spells “this week’s spelling list” is transformed into a captivating adventure game complete with castles, treasure, demons, and a sage wizard. The player moves through the Castle of Spells unscrambling each “Spell” (spelling word) to open a treasure chest of gold and precious jewels. Music, colorful graphics, and large text combine with this absorbing game format to hold the player’s interest while sharpening spelling skills.

With the Spells Writer editing program, customized word lists appropriate to any skill level can be easily created and saved on a diskette. Existing lists may be viewed, deleted, or listed on a printer.

Recommended for children at all reading levels, this program may be used at home or school to improve spelling skills.

Magic Spells:

- uses large, easy to read text, upper and lower case;
- teaches correct spelling, because it provides immediate feedback;
- motivates and maintains interest through use of scrambled words, color graphics, music, and an absorbing game format;
- is appropriate for any skill level, because words may range from two to 15 letters, and lists may be one to 20 words long;
- allows you to add word lists to those on the diskette, create separate diskettes of word lists for multiple users, or delete old word lists;
- lets you view word lists and (optionally) print them.

Merlapple, the sage wizard who reigns over the Kingdom of Magic Spells, offers 11 word lists of spelling “demons” — words that challenge youngsters at all learning levels. The player simply chooses the Magic Spells option from the main menu and selects a word list.



Merlapple gives the player a chance to examine the list of words selected. Then he sweeps the words from the screen, scrambles them, and introduces them randomly, one at a time. A player who needs help unscrambling a Spell can type a star (*) to see the unscrambled word.

As the player unscrambles each Spell correctly, a treasure chest opens with a musical flourish. Clues are provided for words incorrectly spelled and the Spelling Demon gets some of the player’s treasure.

Skillful players enter a magic land at the end of the game, where they can make a wish on a unicorn or win the pot of gold at the end of the rainbow.

Magic Spells is written in Applesoft BASIC.

With Magic Spells, you’ll receive:

- 1) Magic Spells program diskette;
- 2) back-up diskette; and 3) user instructions.



Geometry & Measurement Drill & Practice

Studying angles and circumferences? Try sharpening your understanding with these effective Geometry and Measurement Drill and Practice programs.

Recommended for students in junior high school and above, the programs test users on areas, perimeters, lengths, angles, polygons, volumes, circles—even clock time intervals. Material is presented on two separate diskettes, or “volumes,” one elementary and one advanced.

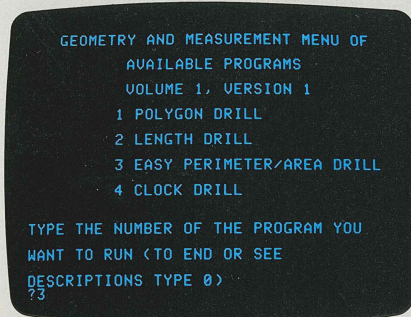
You learn fast, because Geometry and Measurement Drill and Practice uses your Apple's high-resolution graphics to emphasize key points, and provides short explanations to help you when you get stuck. And since you select the drills you want from a menu of options, the program is easy to use, too.

Geometry and Measurement Drill and Practice:

- provides study information, drill options, and correct answers...so you can use the program as a comprehensive learning tool;
- lets you select the number of problems you want to attempt...so you control the time you spend on any single drill;

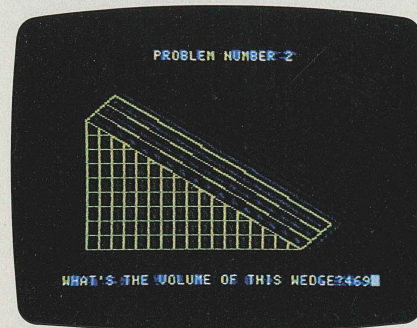
- summarizes the number of correct answers on your first and second tries...so you can judge your progress.

It's simple to use Geometry and Measurement Drill and Practice. For instance, suppose you choose Volume 1 diskette. Its main menu lists the drills focusing on polygons, lengths, perimeters and areas, and clock time. To choose any drill, just type its menu number on your Apple keyboard.

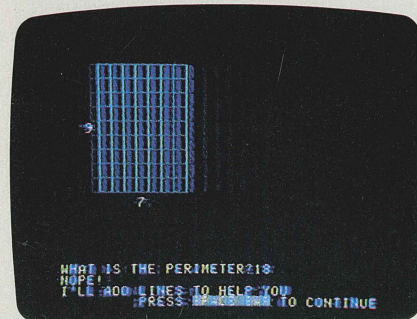


Let's say you choose the Polygon Drill. You can specify the polygon you'd like to be tested on—triangles, for instance—and the number of problems

you want to attempt. When you've finished with the drill, your results will be automatically tabulated, summarizing how well you did. Then you'll be able to: 1) repeat the same type of drill (but with different questions); or 2) return to the main menu to try a different type of drill; or 3) stop the program.



The more advanced Volume 2 programs include drills on circles, angles, perimeters/areas, and volumes/areas. If you make a mistake on your first attempt to answer a question, the program provides more assistance.



Geometry and Measurement Drill and Practice is written in Applesoft BASIC.

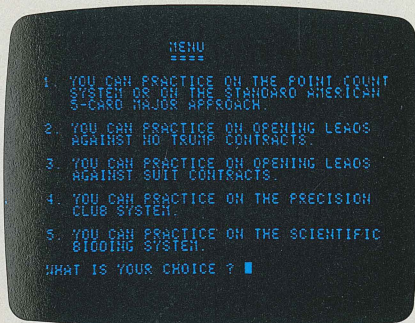
With the Geometry and Measurement Drill and Practice package, you'll receive: 1) Geometry and Measurement Drill and Practice program diskettes (Volumes 1 and 2); 2) back-up diskettes; 3) user instructions.



Bridge Tutor

Are you a beginner at bridge, confused by all the rules about counting and conventions? Or are you a more experienced player, looking for a way to learn and practice advanced bidding systems?

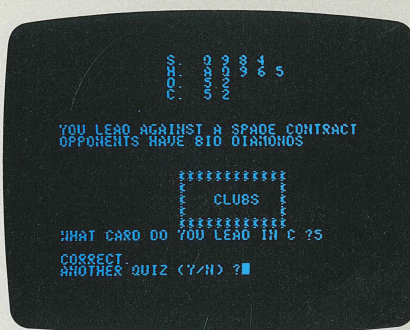
Bridge Tutor teaches all the tricks of better bridge, starting with the basics and building to tournament-level exercises. Endorsed by world champions Michel Lebel and Pierre Jais, Bridge Tutor allows you to practice whenever you want, specialize in areas where you need improvement, and take all the time you need to consider each move. Since the program lets you run through more hands in 10 minutes than you'd see in an entire night of playing, you can take advantage of your spare time to help you develop your skills.



Bridge Tutor:

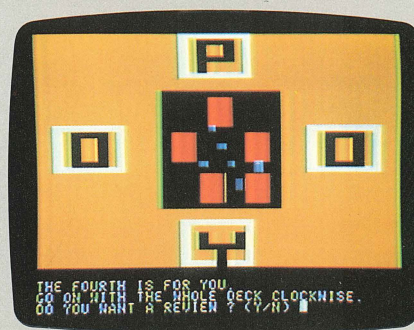
- generates practice hands randomly... so you can use the program over and over again;
- gives you immediate, detailed feedback on your bid or lead... so you quickly learn exactly why your move was right or wrong;
- helps you learn the Standard American bidding system, and, in the expanded version, the Precision Club and Scientific bidding systems... so you can train for any level of social or tournament play;
- has standardized "conventions" built in for each of the different systems... so you gain familiarity with widely used bridge bidding practices.

If you don't know how to play bridge, or want a "refresher" on the fundamentals, Bridge Tutor offers a comprehensive course with full-color graphics and challenging questions to teach you rules and strategy.



Once you know the game, the program's **Bridge Quiz** format lets you practice the range of decision making you face in actual game situations. Because the expanded version of **Bridge Quiz** employs any of the three standard bidding systems, even advanced players can use it for learning and practice. It includes drill exercises that help you learn how to count points, make opening leads against no-trump hands, and make opening leads against suit contracts.

Highly interactive, Bridge Tutor asks you to identify appropriate bids and leads. If your bid or lead is incorrect, you can either try again, or ask the program to tell you the proper move and the logic behind it.

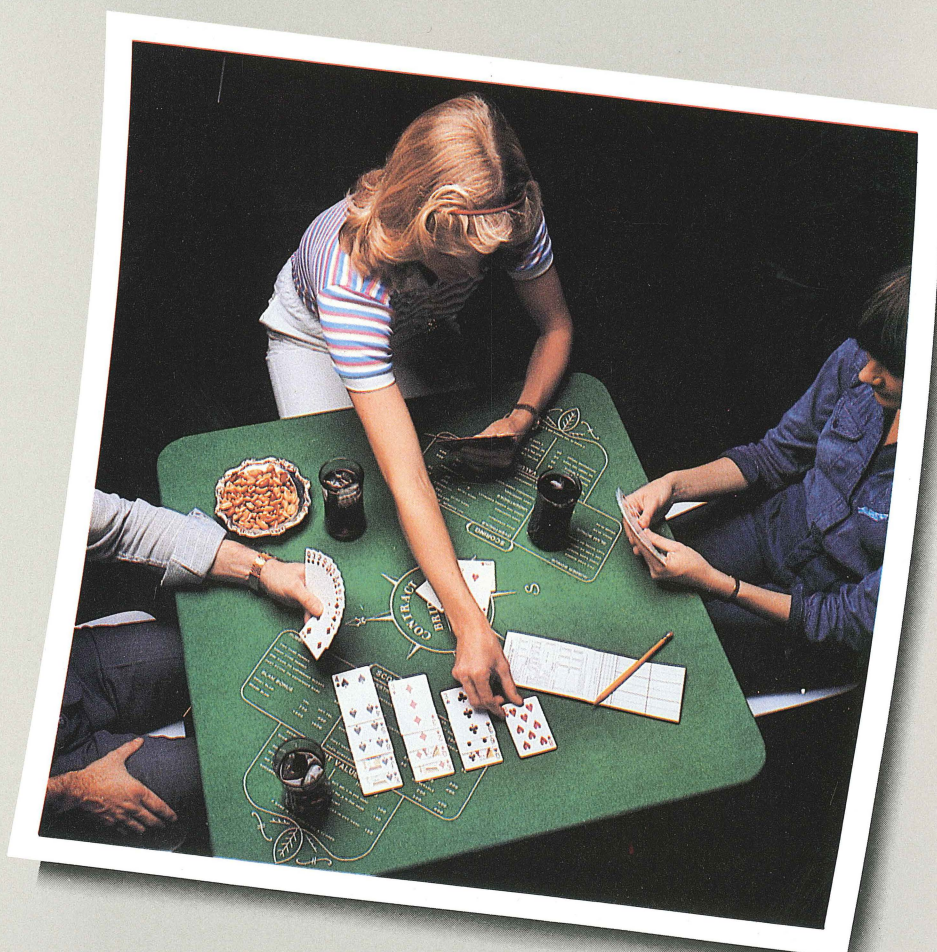


(Experienced players will appreciate Bridge Tutor's special shuffling system that produces four truly random hands with every shuffle.)

Bridge Tutor is written in Integer BASIC.

With the Bridge Tutor package, you'll receive: 1) two Bridge Tutor program diskettes, containing computerized lessons and **Bridge Quiz**; 2) back-up diskettes; 3) instructions.

The basic version includes exercises in the Standard American bidding system; the expanded version includes the Precision Club and Scientific bidding systems in addition to the basic version.



Math Strategy/Spelling Strategy

Try to picture the Mona Lisa.

Do you see her? If you're right-handed, you probably looked up and to the left to visualize the painting. If you're left-handed, you probably looked up and to the right. Either way, you made a mental image to "see" the Mona Lisa.

Math Strategy and Spelling Strategy are two effective, innovative programs that teach youngsters how to use the mind's eye to sharpen math and spelling skills. (Note: Math Strategy and Spelling Strategy are two distinct programs, ordered and purchased separately.)

Math Strategy and Spelling Strategy both incorporate the latest developments in Neuro-Linguistic Programming (NLP), an approach to education that makes use of the interplay between eye movement and memory. Each offers self-paced instruction, helping children learn to make lasting mental pictures of words or math tables they can easily recall.

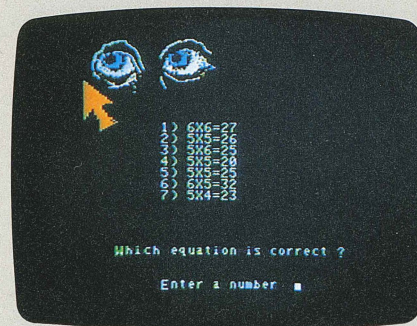
Math Strategy and Spelling Strategy are fun and easy to use. And they encourage effective learning habits that will last the young student a lifetime.

Math Strategy and Spelling Strategy:

- provide challenging, interactive drills and exercises, so they hold a child's interest;
- are ideal for both home and classroom use, because they let you create your own math and spelling lessons;
- include self-paced beginning and intermediate exercises, suitable for students at a number of learning levels;
- take advantage of the Apple Computer's sound and color graphics capabilities to reward correct answers, providing strong positive reinforcement.

Math Strategy and Spelling Strategy each offer a brief but intriguing demonstration illustrating the relationship between eye movement and memory.

Math Strategy lessons present the student with equations in addition, subtraction, division, or multiplication— $8 \times 7 = 56$, for instance. Then the computer asks the child to visualize the equation. Spelling Strategy lessons similarly present the child with a single word to visualize.



Once the image is clearly in mind, Math Strategy and Spelling Strategy give the youngster three chances to type in the word or equation correctly. When the youngster enters a correct answer, the program provides another cue to "see" the image one more time—then asks to have the word or equation typed backward. This ensures that, rather than rote memorizing number or letter sequences, the child actually has stored a complete image.

A multiple-choice quiz follows each exercise, presenting the correct word or equation and four incorrect answers. Once again, the child is encouraged to rely on mental images to recall the correct answer.

The last segment of Math Strategy lessons provides completion exercises, such as $4 \times 7 = ?$. Spelling Strategy asks the child to approve the spelling of a word in the context of a sentence.

The Math Strategy and Spelling Strategy programs also provide author options that allow parents and teachers to create an unlimited number of lessons, each containing up to 10 words or equations.

Math Strategy and Spelling Strategy are written in Applesoft BASIC and sold as separate packages.

With Math Strategy, you'll receive: 1) Math Strategy master diskette; 2) back-up diskette; 3) instruction manual.

With Spelling Strategy, you'll receive: 1) Spelling Strategy master diskette; 2) back-up diskette; 3) instruction manual.



Topographic Mapping

This versatile package allows you to present topographic information with three-dimensional realism. You can create seven different types of video displays on your Apple II system, all from a single set of data.

The Topographic Mapping package also lets you display climatological trends, socio-economic data, mathematical functions, engineering models—any information, in fact, that varies continuously with location.

Topographic Mapping:

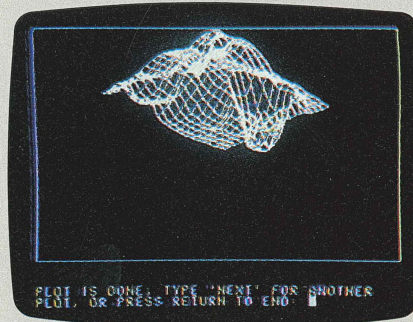
- provides a comprehensive library of graphics programs... so you can choose the most effective way of displaying your data;
- includes two programs that let you use the full 16-color graphics capability of the Apple... so you can highlight and differentiate data for the most accurate, easy-to-view graphical information;
- has five programs that let you use Apple's high-resolution graphics capability... so your three-dimensional displays give you accurate and useful topographic information;
- redraws maps from different points of view... so you can experiment to find just the right perspective for your needs;
- provides two data entry programs that help you generate your own displays... so you can study a mountain you want to climb, map population densities or rainfall data, even create science fiction worlds—your imagination is the only limit!

There are nine Topographic Mapping Programs and seven types of displays in the software package. Each is selected from a main menu.

Two low-resolution display programs take advantage of Apple's ability to produce 16 different colors. One, **Layer**, depicts specified elevation ranges, producing a multicolored, "layer cake" graphic effect. The other program, **Slope**,

uses color to highlight different slope gradients in the terrain under study.

Five black-and-white display programs—**Contour**, **Inclined**, **Block**, **View**, and **Plastic**—exploit the high-resolution graphics capability of your Apple system. **Contour** provides a standard topographic map, showing points along grid lines of equal elevation. **Inclined** is similar, but instead of being limited to horizontal planes, you can actually choose the inclination angle of planes intersecting the terrain.



One of the most unique programs in the package is **View**, which produces a view of the landscape as seen from a selected point, looking in a selected direction. The effect is startling, as you're thrust into the pro-

gram's field of view where you can get an accurate look at the landscape from whatever perspective you've chosen.

With the **Block** program, you can produce an oblique view of a map area in orthogonal perspective. **Plastic**, another program, produces a shaded relief map of terrain that looks remarkably like a photograph.

To create your own maps and data bases for Topographic Mapping, you can use either of two data entry programs. **Regular** lets you take data from standard topographic maps or any other sources which have a regularly spaced grid, and convert it into a video display. If your data points don't fall into regularly spaced rows and columns, you can use a second program, called **Irregular**, to enter the x, y, and z coordinates of relevant data points. The display programs then interpolate the data just as they do with **Regular**.

Topographic Mapping is written in Applesoft BASIC.

With the Topographic Mapping package, you'll receive: 1) Topographic Mapping master diskette, including two demonstration files; 2) instructions.

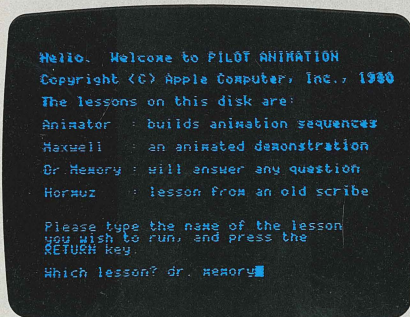


PILOT Animation Tools

Teachers: bring your Computer-Assisted Instruction (CAI) programs to life with PILOT Animation Tools. Used in conjunction with the PILOT Author System, this program is a complete animation "tool shop." Put it to work to illustrate important points, dramatize concepts and principles, and capture your students' attention.

PILOT Animation Tools:

- let you write complex graphics programs without prior software expertise;
- provide an easy-to-use environment ... so your animation task is simplified;
- store animation sequence files ... so you can quickly access and reuse them.



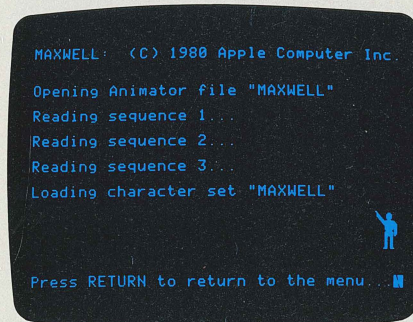
When used with the PILOT Author diskette, the PILOT Animation Tools' **Animator** program lets you build and edit special data files of images. Then you can call these files in sequences in such a way as to animate the images.

You'd begin, for instance, by visualizing the particular image you wish to animate, and breaking down the various stages of its motion into key "snapshot" images. Simply use the standard PILOT Author System's character generator to construct these key images—or assemble them from an existing character font "library" of images that you've already created and stored. Next, use the **Animator** program to put the images in motion. You'll end up with a data file of key images in sequence which—like the individual frames of a motion picture—create the illusion of movement. This animated sequence can also be called easily from any PILOT lesson.

PILOT Animation Tools let you manipulate shapes with simple PILOT statements. If the character set happens to represent a kangaroo, for example, you can easily command the appropriate

frame-by-frame options to make the animal bounce across the screen. Then, by transferring **Animator** files to your PILOT lesson diskettes, you can incorporate the animation sequence into your desired program.

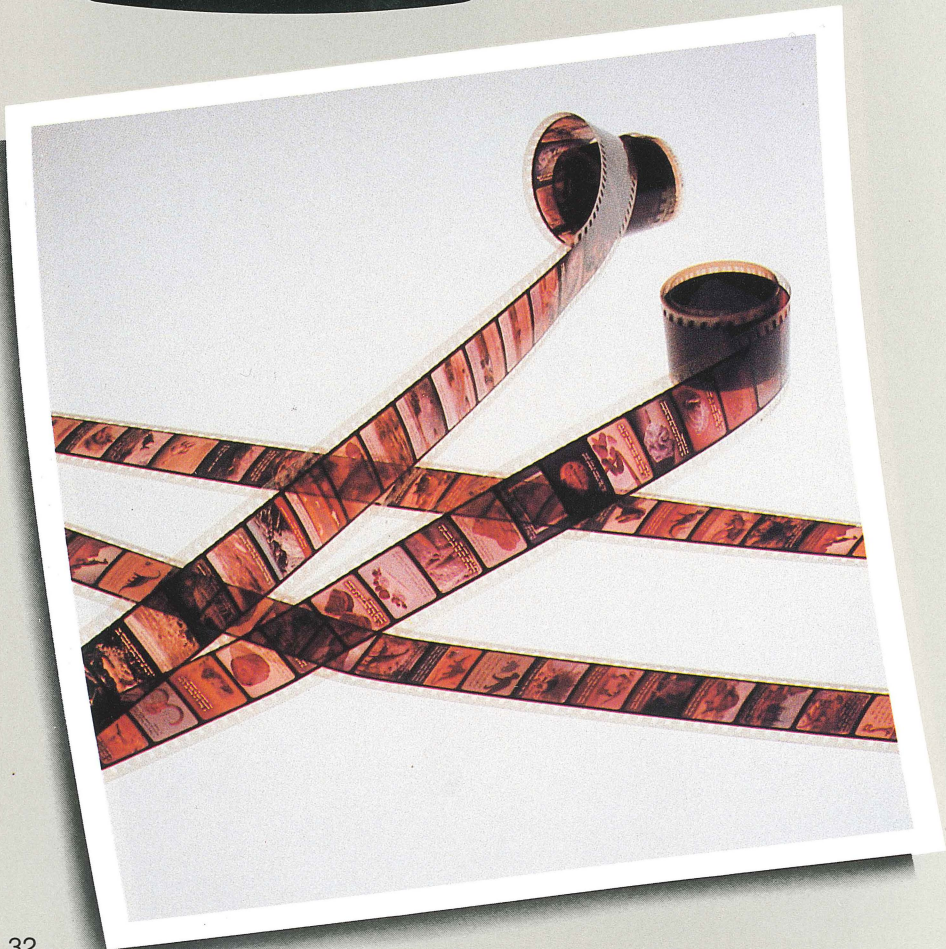
PILOT Animation Tools also include **Maxwell**—a program demonstrating the simplicity and flexibility of PILOT animation—as well as **Hormuz** and **Dr. Memory**, two excellent sample PILOT lessons. In addition, the PILOT lesson **Immediate**—also included in the package—allows you to review your animations on the spot, without having to insert them into complete PILOT programs.



To incorporate animation sequences developed with this package into PILOT lessons, you will need the Apple PILOT Author system (A2D0028).

The PILOT Animation Tools program is written in PILOT.

With PILOT Animation Tools, you'll receive: 1) PILOT Animation Tools program diskette; 2) instructions.



Designer's Toolkit

Now there's a way for professional designers to computerize the drafting table—at a fraction of the cost of expensive computer graphics systems.

Designer's Toolkit is a remarkably flexible, easy-to-use collection of design tools that let you generate ambitious graphics for mapping, architecture, drafting—anything you once used your drafting table for. Emulating pen, pencil and brush on paper, Designer's Toolkit and the Apple II Graphics Tablet let you work with a variety of artistic techniques. You can choose, for instance, from 10 different pen and brush styles permanently built into the program, or you can create and work with any set of as many as 10 of your own “brush” techniques—including, if you like, symbols for mechanical or electrical blueprints.

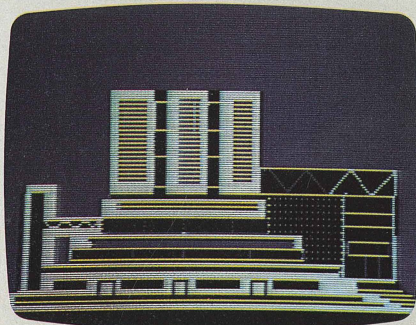
In addition, Designer's Toolkit lets you draw from a palette of colors that can produce more than 300 color combinations. Working with the two high-resolution “pages” in Designer's Toolkit, you'll also be able to quickly transfer part of one drawing to another, magnify sections to add fine detail, invert, even label your illustrations.

What makes Designer's Toolkit particularly easy to use is its menu—it's on the surface of the special Graphics Tablet overlay, so all you do is touch the appropriate box to switch color, technique, or shape.

Designer's Toolkit:

- gives you two “pages” to work with, so you can retain your original design on one page, make modifications on the other, then merge what you like of the two into a final draft;
- lets you work with as many as 20 different pen and brush techniques, so you can draw in the manner you're most comfortable with;
- lets you explode any image on the screen up to 64 times its normal size, so you can provide intricate details when you want them;
- allows you to label your designs as you work, so you save on typesetting, press type, or mechanical costs;
- provides an easy-to-follow menu, so with a single touch you can quickly move from one technique to another, change colors, merge illustrations, and create any number of shapes;

- provides for color separation, so you can change colors in mid-design without having to clear the screen and start over.



With Designer's Toolkit, you draw on the Apple II Graphics Tablet with a stylus, and watch the results on the computer's monitor. The program's menu, always displayed for you on one part of the tablet, gives you instant access to the program's full range of colors, techniques, shapes, and textures.

Using the stylus, simply press the appropriate box on the menu to choose the brush stroke and the color or color

combination you want to work with. Other boxes on the menu allow you to generate any shape you want—dots, lines, travel lines, rectangles, circles, and triangles. Other commands let you draw freestyle, fill in images with color, fan out other images, and invert them.

Drawing a “window” around a section of your illustration allows you to magnify and work on it while you keep the rest of the drawing intact. This way, you can zoom in on difficult areas, draw in the details, then return the image—with modifications—to its normal size.

To label drawings, you also can choose from 15 fonts, in three sizes, that have been built into the program. There's also room for you to design up to 10 of your own fonts, symbols, or text pictures.

Designer's Toolkit is written in Applesoft BASIC.

With the Designer's Toolkit package, you'll receive: 1) Designer's Toolkit master diskette; 2) back-up diskette; 3) demonstration diskette; 4) instruction manual; 5) overlay for Graphics Tablet.



Datatree™

A powerful, easy-to-use, file management system, Datatree helps you organize, search, update, sort, and print out detailed information. With it you can format and maintain a wide variety of data, including client lists, mailing lists, bibliographies, job estimates, patient records, and inventories of business and personal items.

Datatree lets you keep important information organized, up-to-date, and at your fingertips.

Datatree:

- is completely menu-driven and highly interactive, so you need little or no computer experience to use it;
- provides password protection for your files, so you prevent unauthorized access to records;
- allows you to design printouts of entire files or any portion of them, so you can generate reports tailored to your specifications;
- lets you allocate up to a whole diskette for each file, so you can organize a variety of information on one diskette or create a data base library;
- includes five demonstration files, so you get hands on experience with the program before setting up your own data bases.

To create your own data base with Datatree, you first must set up a file using the **Choose/Create File** option. A **File Creation Form** will ask you for file information, including the name of the file, a brief definition of it, and its size and complexity. A record can hold a maximum of 1020 characters, although fewer characters can be allocated without wasting any space.

Once the file is created, you next design a template, assigning "field names" to the different kinds of information you want included in your file. If you own a coin collection, for example, your data base inventory might list characteristics common to the coins—condition, circulation, market value, date, mint, denomination, etc.

The **Choose/Create File** option's **Field Descriptor Form** will ask you to list field names, and their "row" and "column" template coordinates. Other field descriptions allow you to designate "index" fields for search and sort purposes; to reference field names by one-character mnemonic keys; and to limit the amount of data that can be stored in any field.

You can print out, edit, delete, and update your template and **Field Descriptor Form** using the **Field Descriptor Maintenance** option. **File Creation Form** descriptors can be revised by choosing the **File Descriptor Maintenance** menu option.



Datatree's **Update File** option offers an additional range of capabilities. With it, you can add, change, list, and delete records, as well as "krunch" (compress) the data file to absorb disk space vacated by deleted records.

The file's powerful **Find a Record** feature lets you search for templates according to your own criteria, or according to field. (Datatree uses a modified and enhanced B-TREE indexing system for rapid retrieval.) For example, you could use Datatree to search your coin collection data file for all nickels in excellent condition minted in 1943. And you can generate printouts of located records, or list them on your monitor screen.

The **Update File's Sort the Records** feature enables you to arrange templates into a meaningful order. You could organize the records in your coins data file, for example, so that templates are grouped according to denomination, mint, or in order of market value.

Datatree's **Report Program** allows you to print out all or any portion of your data files. And a **Report Creation Form** lets you design the printouts—including mailing labels—to meet your specifications. Using its handy cross- and sub-totalling options, you can tally and print out numerical field data, like income, inventory, and sales figures.

Datatree is written Apple Pascal.

With the Datatree package you'll receive: 1) Datatree master diskette; 2) back-up diskette; 3) Datatree demonstration diskette; 4) data diskette; 5) user manual; 6) tutorial.



Paralax

Paralax is a versatile collection of graphics utilities which let you develop and manipulate high-resolution shapes for Applesoft BASIC programs.

With Paralax, you're able to design any shape you want—without time-consuming machine language programming. And, once you've generated a shape, you can automatically copy it, change its scale, merge it with other shapes, rotate it, even animate it.

In addition, the Paralax package includes a library and demonstration diskette that supplies already-developed shapes—including circles—and six type fonts ready for immediate use in your programs.

Whether you're looking for a tool to handle lettering chores, or a shortcut to the tedium of creating shape tables, Paralax lets you produce ambitious, highly creative graphics more quickly than ever before.

Paralax:

- lets you quickly create detailed figures containing up to 10,260 points, so you don't have to spend time plotting shapes byte-by-byte;
- lets you see each shape as you create it and allows you to modify it directly on the screen;
- uses disk and memory space sparingly, making it possible to retrieve shapes quickly and to include them in long graphics programs;
- allows you to adapt shapes automatically for animation, so you don't spend time recalculating, redesigning, and re-entering data for each figure in the animation.

Paralax simplifies the tasks required to create and use Applesoft BASIC shape tables, allowing you to produce sophisticated graphics for audio-visual presentations, computer games, and other programs. Creating shapes with Paralax requires only a few simple keystrokes. Working in any of 24 different grid sizes displayed on the screen, you design figures by moving the screen cursor up, down, right and left.

Complicated shapes suddenly become easy to generate. To create a highly detailed figure, for instance, you might develop it on a large grid and shrink it down to size after it's completed. Or you might want to construct a shape

in segments and put the pieces together later.

Once you've completed a shape, the computer automatically calculates the fastest way to draw it, and allows you to view it in different sizes and colors.

Producing new type fonts is just as easy. Starting with an alphabet of thin-lined characters, enter a simple code that makes the letters thicker, adds color to them, or changes the letter type to outline, shadow, or other appearance. You can create an entire alphabet by styling a single letter; or you can fashion each letter individually.

Paralax also lets you animate any shape or character you create without error-prone and time-consuming redrawing. You define the type of movement you want, and Paralax makes the calculations necessary to develop the shapes needed for animation.

Paralax is written in Applesoft BASIC.

With the Paralax package you will receive: 1) Paralax program diskette; 2) back-up diskette; 3) library diskette; 4) demonstration diskette; 5) instruction manual.



Circuit Analysis

Tired of endless breadboarding and testing every time you design a circuit? Circuit Analysis lets you modify and improve your circuits as much as you want—without picking up a soldering iron.

Whether you design circuits for profit or pleasure, Circuit Analysis allows you to quickly adapt AC or DC circuits to your required specifications. And, by connecting an Apple Silentype or Apple-compatible printer to your system, you can quickly record test results.

Circuit Analysis:

- calculates the effect of individual components on an entire circuit... so you can zero in on the most significant parts when experimenting with changes;
- shows which components' tolerances are most critical to the success of a circuit... so you'll know exactly where it's safe to economize;
- allows you to plot data using the Frequency Analysis option... so you can instantly visualize your circuit's performance;
- lets you redefine output nodes... so you can run any of the program's tests on any point in the circuits.

<< PART EFFECTS & WORST CASE >>

PART NAME	EFFECT ON OUTPUT %	TOLERANCE EFFECT %
UC1C	85.15	0
UC1C	14.85	1.48
UC1C	844213939	8
UC1C	842834991	4
UC1C	1.67	167491223
UC1C	12.5	2.13
UC1C	-44.88	-2.2
UC1C	-42.17	-12.65

WORST CASE: OUTPUT VOLTS

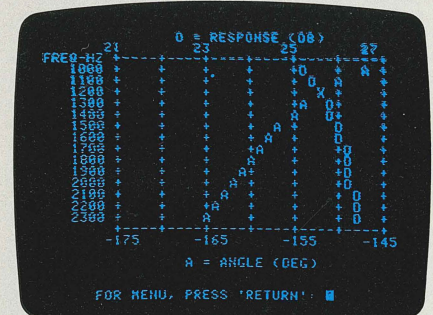
MINIMUM	= 1.99435713
NOMINAL	= 2.39371338
MAXIMUM	= 2.98618289
TOTAL RANGE	= .911825764 (38.89 %)

FOR MENU, PRESS 'RETURN' ■

In order to use Circuit Analysis, you must first diagram your circuit, substituting equivalent subcircuits as necessary. You then assign numbers to each part and node. Using the **Make A New File** option, enter this positional data along with values and tolerances for the components—up to 60 parts and 30 nodes for an AC circuit; 80 parts and 40 nodes for a DC circuit.

The Circuit Analysis program's **Nominal Output** option helps you determine the nominal voltage gain, output level, and phase shift of your circuit at a given frequency. The **Frequency Response** option provides a complete check. Circuit Analysis will list up to

30 frequency steps in increments of your choice, then offer you the option of seeing the information displayed graphically.



Part Effects & Worst Case will alert you to exactly how each component is affecting your circuit, and the possible results if they all performed at the negative limits of their tolerances. The **Optimize a Part** option will vary a specific component's value to produce the voltage gain, output level, or phase shift you request. **Trial Run & Test Limits** provides statistical analysis of a circuit's performance under assembly line conditions, telling you what the test limits should be for a one percent reject rate.

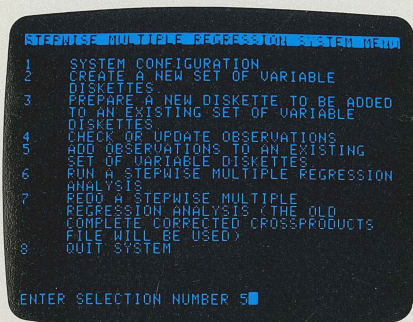
Circuit Analysis is written in Applesoft BASIC.

With the Circuit Analysis package, you'll receive: 1) Circuit Analysis program diskette, including sample circuits; 2) back-up diskette; 3) instructions.



Stepwise Multiple Regression

Designed especially for the professional researcher, Stepwise Multiple Regression is a statistical analysis program patterned after the UCLA BIOMED multiple regression series. The program allows you to use stepwise regression analysis to test accurately the strength of relationships between variables—up to 60 in a single run. Data is saved to and read from diskettes, with a single diskette capable of storing up to 64 observations for each of 100 variables. By using multiple diskettes, there is virtually no limit to the total number of observations possible.



Stepwise Multiple Regression determines all the customary descriptive statistics for any multivariate linear regression, including means, standard deviations, regression coefficients, multiple correlation coefficients, R^2 , residuals, correlations, F-values, and others. The program also provides the correlation matrix and the "stepwise" additions (or deletions) of variables to the explanatory model.

A unique feature of Stepwise Multiple Regression is that it plots residual values using Apple's high-resolution display capability. If your system includes an Apple Silentype printer, you can obtain hard-copy output of these detailed graphs, too.

Stepwise Multiple Regression:

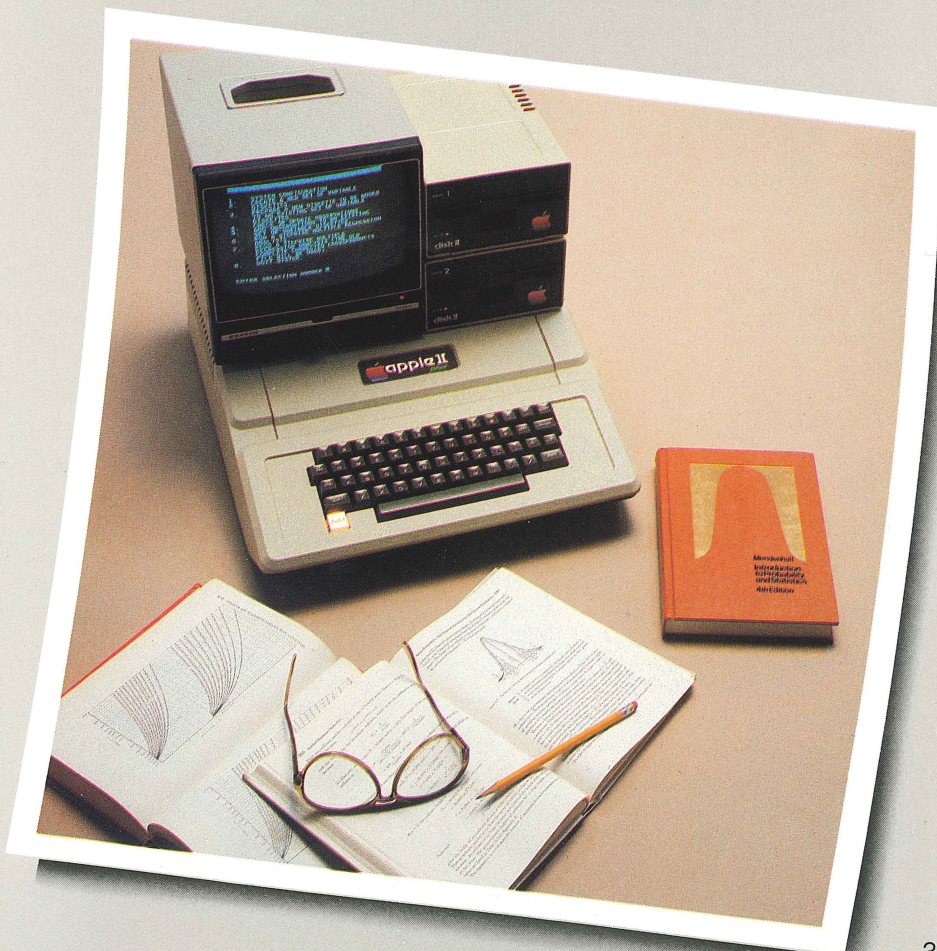
- reduces your use of large expensive timesharing systems to perform regression analysis in your research ... so you save money on computer time charges;
- frees you from the down time, restricted availability, and other disadvantages of timesharing systems ... allowing you to work at your convenience;
- keeps confidential data out of large mainframe environments ... so you avoid security risks;
- lets you conduct remote investigations on-site, anywhere there's an electrical outlet ... so you're able to compute and use statistical information as you need it, without delays.

The Stepwise Multiple Regression system consists of 11 programs contained on a single master diskette—four programs for data management, four for calculations and reporting results, and three for system integration.

All of the programs are easily selected from a main menu, and all are linked to simplify running the system. By choosing the appropriate option on the main menu, you can: configure your system; create and prepare variable data diskettes and back-ups; update, list, and add observations to existing variable diskettes; and perform or repeat stepwise multiple regression analyses.

Stepwise Multiple Regression is written in Applesoft BASIC.

With the Stepwise Multiple Regression package, you'll receive: 1) Stepwise Multiple Regression master diskette; 2) back-up diskette; 3) instruction manual.



Apple Writer III

A powerful new word processing program for the Apple III computer, Apple Writer III allows you to create, edit, format, and print a wide range of written material quickly and accurately—from memos and personalized form letters to business plans and book-length manuscripts.

With Apple Writer III, you get the sophisticated features professionals look for in a word processing system, including paragraph and column tabulation, underlining, and automatic print formatting. You also get an easy-to-use Word Processing Language (WPL) which allows you to create your own time-saving word processing functions.

Apple Writer III lets you take advantage of the Apple III Computer System's convenient built-in features: 80-character-per-line upper/lower case display; a sculptured keyboard designed for maximum typing speed and accuracy; and an ample, 128K memory (expandable to 256K) that allows you to process large documents with ease.

Apple Writer III eliminates time-consuming retyping and editing tasks—allowing you to turn your attention to more important matters in progress.

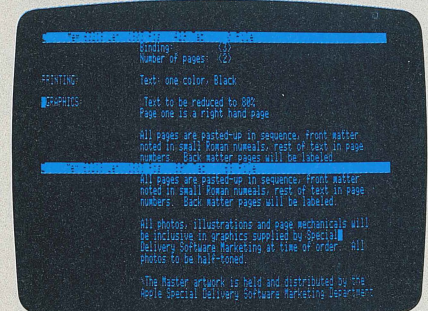
Apple Writer III:

- offers built-in Help screens accessible with a single keystroke, so you have a handy, useful reference guide to all of Apple Writer III's features;
- works with Apple III Mail List Manager files, freeing you from tedious addressing chores;
- is able to read VisiCalc™ III files, allowing you to integrate VisiCalc results directly into your reports;
- lets you link several different text files together, so you can easily insert a quote, a page—even an entire report—into your documents.

Anyone familiar with a typewriter will find Apple Writer III simple to use. Text entry is straightforward and fast; editing requires only a handful of simple keystrokes.

Apple Writer III contains all the features you'd expect to find in a sophisticated word processor. You can, for instance, display your text either black-on-white or white-on-black. You can move the cursor by character, word, or

paragraph, or jump to any part of the text. You can transfer, copy, or delete blocks of text as well. And, Apple Writer III's "Find and Replace" feature can quickly locate and replace words throughout your copy.



The program also provides several powerful functions previously available only on high-priced word processing systems:

TAB FILES: Apple Writer III allows you to store up to 32 tab settings for quick formatting of standard letters and intricate forms;

GLOSSARY: Allows you to use shorthand commands to insert frequently used words and phrases;

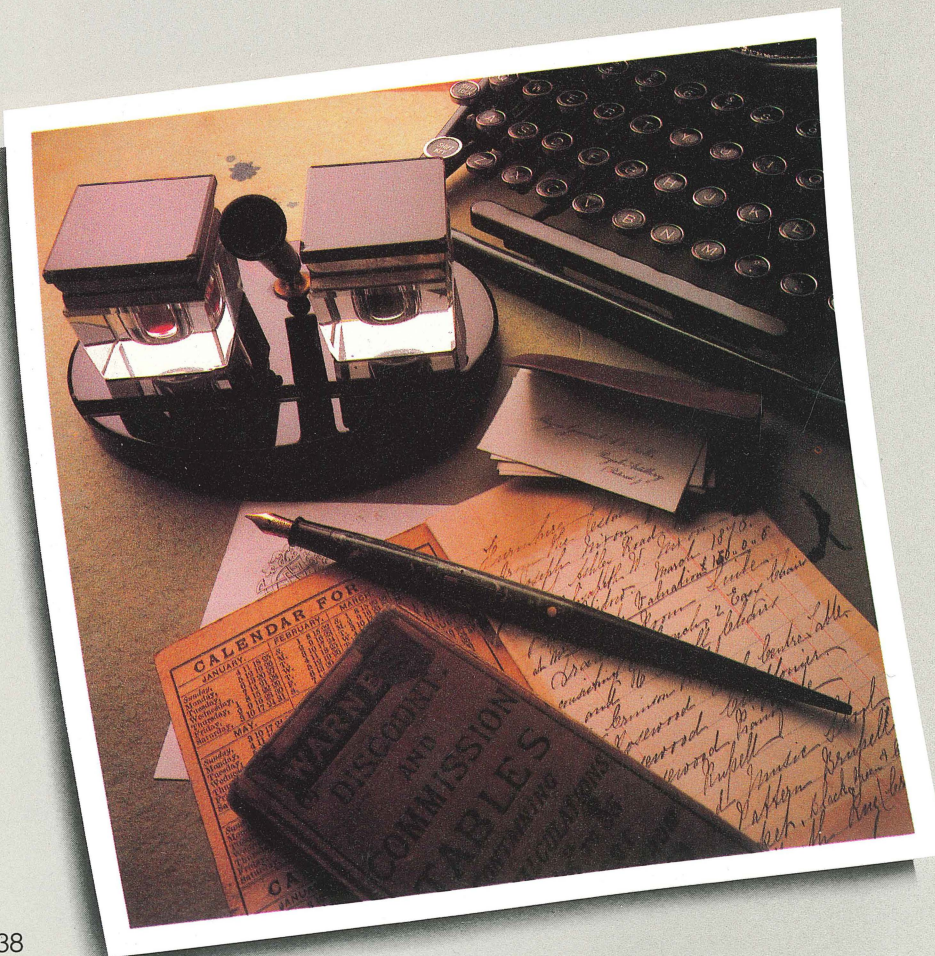
SPLIT SCREEN: Lets you display and process two separate portions of a document simultaneously by splitting the screen into two document windows;

WORD PROCESSING LANGUAGE (WPL): A special language containing standard Apple Writer III commands that makes it easy to generate form letters and to customize your own word processing applications.

Apple Writer III works with any Apple III-compatible printer. Automatic formatting controls let you specify margins, headers, footers, line spacing, and center, left, and right justification. (With many printers, you can produce superscripts, subscripts, and underlines as well; check with your dealer about your system's specific capabilities.) Before committing text to paper, you can also "print" it to the screen to see how the document will appear.

If you're using Apple IIs in addition to Apple IIIs, the Apple Writer III package includes a special utilities diskette that allows you to transfer files between computers.

With the Apple Writer III package you will receive: 1) Apple Writer III master diskette; 2) Apple Writer III back-up diskette; 3) Apple Writer III utilities diskette; 4) instruction manual.



Apple Access III

Now you can use your Apple III to tackle stand-alone *and* timesharing tasks as well. Access III transforms your Apple III into a conversational terminal that can communicate with a variety of computers and timesharing systems, providing you with time- and money-saving desktop control.

This powerful program allows your Apple III to emulate Digital Equipment Corporation's popular VT-100 and VT-52 terminals. It even enables you to hook up your computer to remote information services—including the Dow Jones News/Retrieval Service and The Source—making a wide range of highly useful programs, data bases, and financial information available to you.

Tired of waiting for data processing services to get around to your top priority jobs? Using an Apple III, you can complete the work according to *your* schedule, then transmit the information with Access III to mainframe or mini-computer systems directly or via telephone link. By connecting a modem to your Apple III's built-in RS-232 interface, you can communicate at 110, 300, 1200, 2400, 4800, or 9600 baud.

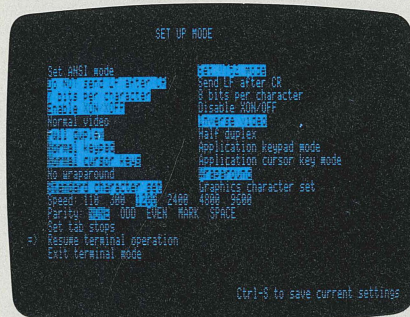
The Apple III's local processing power gives you the added advantage of being able to "download" data from remote systems and work with it off-line, significantly cutting your timesharing charges and total computing costs.

Apple Access III:

- allows you to upload and download files to and from other Apple systems, as well as larger computers, expanding your communications capabilities;
- offers a cost-effective timesharing alternative, because it lets you process downloaded data off-line, at your own pace;
- allows you to revise recorded data by using your Apple III Pascal Editor, giving you added flexibility;
- provides auxiliary keypad codes compatible with VT-52 and VT-100 Application Mode sequences, facilitating data input;
- offers four programmable function "PF" keys, allowing you to communicate more effectively with remote computers.

By using Access III's **SET-UP MENU**, you define communication speed and other parameters affecting data transmission. Access III offers full 80-column, upper/lower case display.

The **SET-UP MENU** lets you select either normal or inverse text modes. Simple commands allow you to save menu constants to your data diskette and load them quickly for repeated use.



Apple Access III's main menu offers five options. **Terminal Mode** provides you with the necessary environment for communicating with remote computers.

If you're using a modem, simply turn it on and dial the host computer; if you have a direct connection, you should immediately be on-line. (Information and timesharing services generally will prompt you for a password and account number before you can log on to their systems.)

Access III's powerful **Recording Mode** feature allows you to selectively

save host-transmitted data to your data diskette or printer. You can take advantage of it by entering a simple command. If you're recording more than one file, Access III's **Change the Name of the Recording File** option lets you organize the data into separate files on your diskette and output any of the host files directly to your printer.

Transmit a File allows you to quickly transfer any type of file to remote computers. ASCII files developed using your Apple III Pascal Editor will appear to the remote computer exactly as if you had typed them on your keyboard.

The program's handy **Help** option displays all the Access III commands available in **Terminal Mode**, as well as the name of the recording file currently open and active. **Exit** automatically "logs off" your Apple III and terminates the program.

Apple Access III is written in assembly language and is compatible with either Apple III Pascal or Apple Business BASIC.

With the Apple Access III package, you'll receive: 1) Apple Access III program diskette, containing Apple III Pascal and Apple Business BASIC versions; 2) user instructions.



Apple III Business Graphics

One picture's worth a thousand words. Apple III Business Graphics allows you to convert sales and stock activities, production schedules, manpower projections, quality and control data—any numerical information, in fact—into easy-to-read, comprehensive charts and graphs.

Numbers alone can't offer the insight you need to run your business successfully. Apple III Business Graphics helps you see the "big picture," providing valuable new perspectives on the figures affecting your organization. Curve fitting, for example—one of Apple III Business Graphics' powerful statistical analysis features—can help make forecasting a breeze.

The program is highly interactive, based on an easy-to-master command language. Use it to create point graphs, line graphs, bar and pie charts that give greater impact to your reports and proposals.

Apple III Business Graphics can also help you get ideas across more convincingly in meetings and presentations. When used with a high-resolution color monitor, this flexible program lets you generate eye-catching "slide shows" that will captivate your audience—and effectively demonstrate your point of view.

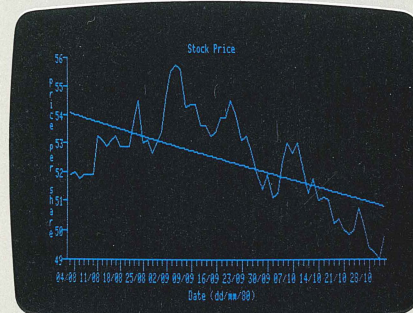
Apple III Business Graphics:

- allows you to plot two or more graphs on the same set of axes, so you can juxtapose Overhead, Sales and Profits, for example, and analyze their interdependence;
- works with DIF™, VisiCalc III, Apple III Business BASIC, and Apple III Pascal, allowing you to incorporate and convert data files from a variety of programs;
- gives you complete control of all graph parameters, as well as a wide range of creative alternatives—including the ability to plot colors;
- lets you enlarge any area of a graph and study it closely, so you can examine important trend lines;
- generates attractive charts and graphs ideal for video and print presentations.

Apple III Business Graphics is easy to use. With it, you can generate line, dash, and area-filled graphs; horizontal and vertical bar graphs; pie charts and scattergrams. You choose the graph type that will best display your data.

This powerful program also allows you to customize graphs according to your parameters. It gives you the flexibility

to specify: labels for each axis; "floating" labels that identify plotted graphs; plot colors; as well as horizontal and vertical axis ranges.



Apple III Business Graphics' simple command language is based on literal verb-noun and verb-noun-modifier statements. By typing DRAW BAR, for example, you can instruct the program to draw a bar graph. The program also recognizes abbreviated commands, further simplifying data entry. SET COLOR BLUE, for instance, can be accomplished with only six keystrokes—SE CO BL.

Apple III Business Graphics even enables you to replace multiple command sequences with macro commands, allowing otherwise lengthy instructions to be entered simply and efficiently. This handy feature makes it possible for you to combine "SET COLOR BLUE" and "DRAW BAR" commands into a "GR1" macro command, for example.

With Apple III Business Graphics, you can load, plot, and analyze data from: VisiCalc III print files; DIF format; Apple III Business BASIC, and Apple III Pascal text files. You can perform statistical analysis on data files to determine minimum, maximum, sum, mean, standard deviation, and variance. Or establish data trends through fitting least squares, constant, parabola, exponential, logarithmic, and sine curves. You can also plot sine curves alongside analyzed data.

In addition to supporting Apple Silentype and Qume Sprint 5™ printers, Apple III Business Graphics is also compatible with Hewlett-Packard 7225A and Houston Instruments DMP-3, -4, -6, and -7 plotters.

Apple III Business Graphics is written in Pascal.

With your Apple III Business Graphics order, you will receive: 1) Apple III Business Graphics /BOOT, /PLOT, and /DATA diskettes; 2) back-up diskettes; 3) Apple III Business Graphics Tutorial; 4) user instructions.



Apple III Pascal Utility Library

At last—a program that uses the power of Pascal to make Pascal programming easier.

The Apple III Pascal Utility Library allows you to program quickly and efficiently by eliminating the time you spend developing data entry and manipulation routines. It frees you to concentrate on the *content* of each program, rather than wasting time reinventing solutions to recurrent programming problems.

The Pascal Utility Library offers the experienced programmer a set of solutions to problems frequently encountered in user input validation, disk file handling, report generation, and screen display. In addition, it gives the student of Pascal a ready set of answers to many of the problems that can slow down the programming process.

The Apple III Pascal Utility Library not only makes programming faster and easier, but gives you the capabilities—and time—to develop more sophisticated programs.

The Apple III Pascal Utility Library package:

- speeds program development by eliminating time-consuming writing, testing, and debugging of commonly used procedures;
- lets you compile programs quickly because utilities are stored in a central library file instead of in individual programs;
- uses diskette space more efficiently by creating compact CODE files, allowing you to save several programs on the same diskette;
- provides source code from which the library was created, so you can modify and recompile it to fit specialized needs.

To use the program, “boot” your Apple III Pascal diskette in the Apple III’s built-in drive, then transfer the Utility Library onto your Pascal diskette.

From that point on, you can utilize the library’s utilities by calling them into your programs the same way you would with Pascal’s APPLESTUFF or TURTLE-GRAPHICS units. The library is divided into three sections: **General Utilities Modules**, **File Access Modules**, and **B-tree Modules**.

The General Utilities unit allows you to evaluate user input and manipulate data by using any of 21 general-purpose procedures and functions. With these

utilities, you can control report formats, manipulate characters and strings, evaluate strings as either integers or long integers, and utilize many other often-used routines, including:

DATECOMPARE: Compare two dates and return a value that defines their relation;

FMTDATE: Format a numeric string as a date in a variety of different formats;

GETCHR: Get a character from the keyboard and prevent the input of invalid characters;

JUSTIFY: Left-, right-, or center-justify a string, with a background of any specified character;

MAKESTRG: Make a single character into a string;

PROMPT: Put a prompt on the screen and wait for the user to give a response of a specified length;

ROOMONPAGE: Test whether there is enough room on the current page for printing or skipping the specified number of lines, and maintain a line count;

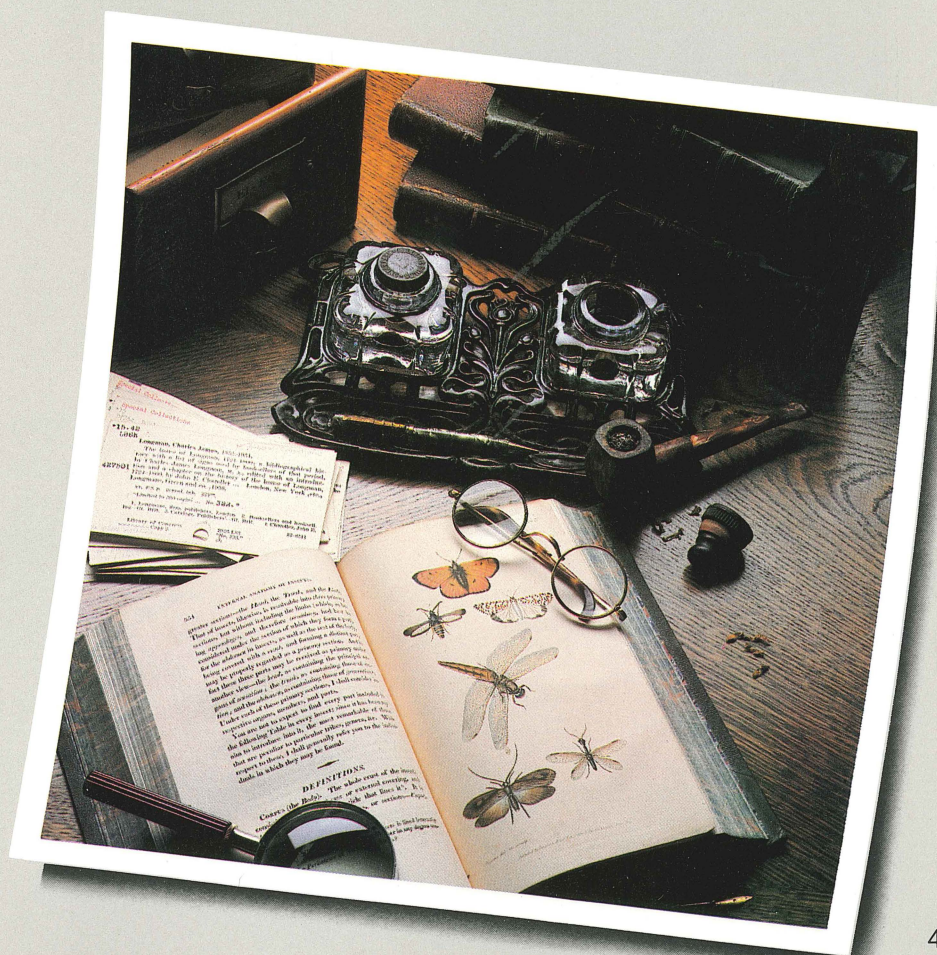
VALIDDATE: Validate a date and convert it to a packed format.

By using **TESTUNIT**, a highly interactive program included in the Pascal Utility Library package, you can experiment with these General Utility Modules, or test any changes you might make within them.

The **File Access Modules** provide routines that let you create, analyze, and modify untyped Pascal files. **CREATE-FILE** enables you to reserve space on a disk for an untyped file of any length; **LISTSTATUS** will list the control information contained in any file. Other functions in the modules allow you to open and close files, find the next active or inactive record in the file, read or write to an untyped file, and change the header of a file to reflect the current status of any specified record.

The **B-tree Modules** allow you to work with standard B-tree structures in RAM to rapidly sort, search, and index data.

With the Apple III Pascal Utility Library package, you will receive: 1) two Apple III Pascal Utility Library master diskettes with system library and demonstration programs; 2) instruction manual.



Script III

Add style to your printed Pascal text files. Script III allows you to format programs, documents—any text written using the Apple III Pascal Editor—with greater ease and flexibility than ever before.

This powerful program enables you to embed commands in your Apple III Pascal text files and get layout-perfect printouts every time. (You can also print Script-formatted files on the screen or save them on diskette.)

Script III works with a wide variety of Apple III-compatible dot matrix and impact printers. With it, you can: designate line spacing, margins, and page breaks; paginate using headers or footers; underline, center-, left-, and right-justify text; and much, much more.

Now you can produce attractive, easy-to-read Pascal documents and program listings—custom-tailored to your specifications with Script III.

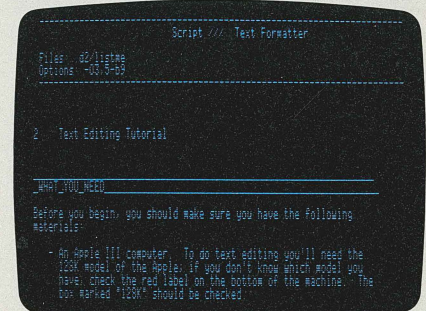
Script III:

- speeds recognition of bugs while you're debugging programs, because it enables you to print Pascal procedures on individual pages and underline keywords within them;
- lets you selectively print any portion of Apple III Pascal text files, so you don't waste time and diskette space re-saving small text segments;
- allows you to "chain" text files together for uninterrupted printing;
- gives you the option of saving formatted text files to diskette, letting you generate attractive, highly readable printouts directly, with the Apple III Pascal Filer and Editor;
- allows you to represent multiple command sequences with simpler, single macro commands, so you streamline print instructions that can be quickly embedded over and over again.

Script III is extremely easy to use. Simply load the program into memory, and insert your Apple III Pascal diskette

in the Apple III's built-in disk drive. Script will read the file you indicate, executing your print formatting commands.

Script III offers a wide range of options that enables you to output formatted files to the screen, to diskette, or to an Apple III-compatible printer.



There are nine Script output options you can use in a variety of combinations. "Q-Z12-K-03-8," for example, indicates your file is to be outputted to a Qume-like printer (-Q), set with a left margin of 12 (-Z12) with all Pascal keywords underlined (-K), and pages 3 through 8 only to be printed (-03-8).

A helpful tutorial, included in the appendix of the Script III manual, offers beginners an easy-to-follow, step-by-step approach to using the Apple III Pascal Editor and Filer with Script to generate formatted text. It is an extremely handy tool for anyone just learning to take advantage of the Apple III's powerful text editing and text formatting capabilities.

Script III is written in Pascal.

With the Script III package, you will receive: 1) Script III master diskette; 2) instruction manual.



Product Information

PRODUCT NUMBERS	DESCRIPTIONS	CONFIGURATION ¹	PRICE ²	PAGE
C2B0004	APM	AB 10	\$235.00	4
C2H0006	Agenda Files	AB 11	35.00	18
C2B0010	Apple Writer II	AS 11	150.00	3
C2H0004	Artist Designer	P 5	65.00	21
C2E0006	Bridge Tutor	IB	40.00	29
C2E0007	Bridge Tutor with Scientific Club and Precision Bidding	IB	60.00	29
C2S0003	Circuit Analysis	AB 10	40.00	36
C2B0013	Comm-Pac	AB 11	85.00	7
C2S0002	Datatre	P 11	125.00	34
C2S0004	Designer's Toolkit	AB 1	225.00	33
C2H0007	Diet Analysis	AB	45.00	17
C2B0005	Formulex	P 11	75.00	11
C2H0003	Galactic Wars	AB 32K,6,5	35.00	20
C2E0002	Geometry and Measurement Drill and Practice	AB 32K	50.00	28
C2B0006	Goodspell	AB 4,10	60.00	8
C2E0001	Hand Holding BASIC	AS 11	100.00	25
C2E0012	Magic Spells	AB 5	45.00	27
C2E0010	Math Strategy	AB 5	45.00	30
C2E0011	Moptown	AB 5	50.00	26
C2H0002	Musicomp	IB 32K	45.00	22
C2B0008	Order Tracking System	AB 8,11	50.00	10
C2S0005	Paralax	AB	85.00	35
C2B0001	Pascal Animation Tools	P 9	75.00	12
C2H0001	Personal Finance Manager	AB 11	75.00	15
C2E0004	PILOT Animation Tools	PILOT 3	75.00	32
C2B0007	PLAN80	P 11	185.00	6
C2B0003	PSORT	P	85.00	13
C2B0011	Script II	P 11	100.00	9
C2B0012	Senior Analyst	P 11	225.00	2
C2E0008	Speed Reader	AB	70.00	24
C2E0009	Spelling Strategy	AB 5	45.00	30
C2S0001	Stepwise Multiple Regression	AB 11	150.00	37
C2E0003	Supermap	AB 5	35.00	23
C2E0005	Topographic Mapping	AB 5	65.00	31
C2H0005	Utopia Graphics Tablet	AB 1,5	75.00	16
C2B0009	VisiCalc Real Estate Templates	AS 7,11	65.00	5
C2H0009	"The World's Greatest Blackjack Program"	AS	50.00	14
C2H0010	The Wreck of the B.S.M. Pandora	AB	50.00	19
C3B0003	Apple Access III		150.00	39
C3B0002	Apple III Business Graphics		175.00	40
C3S0001	Apple III Pascal Utility Library		75.00	41
C3B0001	Apple Writer III		225.00	38
C3B0004	Script III		125.00	42

Configuration notes:

Language

AB — Applesoft BASIC
 IB — Integer BASIC
 P — Pascal (64K)
 AS — Assembly (AB or IB)

Notes

1. Graphics Tablet
 2. D.C. Hayes Micromodem
 3. PILOT Author Disk
 4. Apple Writer

5. Color Monitor
 6. Game Paddles
 7. VisiCalc 13 sector
 8. 2 Disk Drives

9. Pascal 1.0
 10. Printer—Required
 11. Printer—Optional

¹ All disk drives are DOS 3.3 (16 sector) and 48K Apple systems unless noted.

Video monitors or televisions lacking vertical hold controls may not work with an Apple Computer System. (RF modulator required with TV.)

All Apple III Systems use the standard configuration with 128K.

² U.S. dollars.

Notes

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