

14  
New Programs  
Included!

# Zephyr's

# Exclusive Software

Apple II • IBM • Compatibles



Plus 32 More!

35 Exclusive Programs for  
Home, Office, School & Personal Use  
To Put Your Computer to Work!

# Zephyr Services

Order ☎ 1-800-533-6666 Toll Free



In PA call 412-422-6600



9-9, Mon. to Sat.



Our 6th Year of  
Quality Software

Join Our Thousands of  
Satisfied Customers!

# About Zephyr Services...

## ZEPHYR SERVICES



1900 Murray Avenue

412-422-6600

Pittsburgh, PA 15217

Dear Software User,

Welcome to Zephyr Services! This issue of our catalog brings you 14 new programs, together with all our other software now being used by satisfied customers across the USA and in over 70 other countries! We hope that you will find software to make your computer work (or play) the way you want.

Zephyr was founded to provide quality software at reasonable prices, with personal service for each customer. We are now in our 6th year and continue to place your satisfaction first.

In browsing through the catalog you will find many programs that are interesting and useful. Our software brings you the things you need (beyond the basics of spreadsheets and wordprocessors) to spice up your computer!

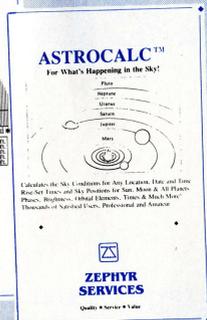
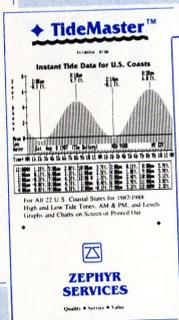
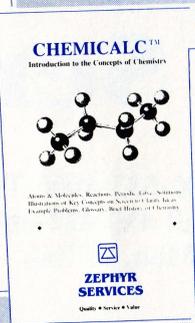
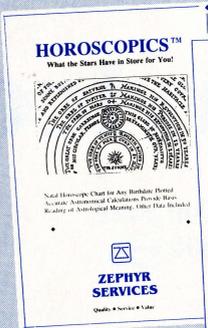
For your convenience order toll free, with VISA or MasterCard, 1-800-533-6666 Monday to Saturday, 9 to 9 (In PA 412-422-6600). Or use the handy order form and envelope bound into the catalog. Your order will be promptly shipped.

To all our customers, Thank You!

Sincerely,

James T. Paulsel  
Publisher

QUALITY • SERVICE • VALUE



What Do Our Customers Say ?...

Please See Order Envelope.

## SUPERCAT™ Catalog Your Library-For School, Home, Office

SUPERCAT will create a catalog for a library of books and can be used for other collections such as records or tapes. The menu based program is easy to use and comes with an explanatory manual. The functions of the program include:

- Adding Books to the Catalog
- Deleting (or undeleting) Books
- Editing the Data for Any Book
- Printing Catalog Cards, in Various Formats
- Searching for and Displaying or Printing Information in 11 Selectable Formats
- Sorting the Catalog Information for any Type Data

SUPERCAT will store up to 1000 books per floppy disk or up to 5,000 books per directory with a hard disk. The sort routine executes in RAM for fast sorting. (Apple version holds 300 per floppy, 1000 per directory.)

The program provides a professional level of cataloging data. You may store information by author (1 or 2 separate authors per book), title, subject (up to 3 separate subjects per book), call number, publisher, publication date, acquisition date, and price. Two other fields of information are available that can be adapted for your needs, such as the control of circulating books

BOOK CALL NUMBER	SUBJECT 1	AUTHOR 1	TITLE
1 FB234.67R	BUSINESS	NEHR/ALLAN N.	PERSONNEL AND LABOR RELATIONS
2 FH67.4	BUSINESS	DAVIDSON/SIDNEY	ACCOUNTING/LANGUAGE OF BUSINESS
3 BV324.67	BUSINESS	ILICH/JOHN	ART & SKILL OF SUCCESSFUL NEGOTIATION
4 FB234.75	BUSINESS	HINES/JOHN B.	PERSONNEL AND INDUSTRIAL RELATIONS
5 HE663.2	BUSINESS	METSON/J. FRED	MANAGERIAL FINANCE
6 H4122.8	BUSINESS	DREHNI/ DAVID	CONTINGENT INVESTMENT STRATEGY
7 H6456.9	BUSINESS	GRISINOW/ BERNARD	HOW TO RUN A SMALL BUSINESS
8 HE235.5	BUSINESS	DIBLE/ DONALD N.	UP YOUR OWN ORGANIZATION!

One of 11 Report Formats Available

SUPERCAT will work with floppy or hard disk computer systems and with any printer. The catalog cards use a 3x5 format (on continuous forms or plain paper). You can print test cards to align the printer.

The sorting of any data field allows flexible retrieval of information for any of the formats available. Data can also be retrieved for a specific record or any sequence of records. A very good program for small to medium sized libraries.

```

TITLE PERSONNEL AND LABOR RELATIONS
      FB234.67R
Author: NEHR/ALLAN N.
Author: HINES/JOHN B.
TITLE PERSONNEL AND LABOR RELATIONS
Subject: PERSONNEL
Subject: LABOR UNIONS
Publisher: MCMILLAN
Pub. Date: 1973
Acq. Date: 1975
Price: 39.95
Other: 1 BUSINESS LIBRARY
Other: DONATION - J.R. WILSON
Rec. No.: 1
    
```

Example Index Card

IBM & Compatibles, Apple II family, any type of printer **\$49.95**

## FINANCER™ The Basics of Finance Made Easy!

A utility to help you with those financial related calculations. Includes the 10 most needed financial functions. Menu selectable to do the following:

- Present Value of a Future Amount
- Simple Interest
- Future Value of a Present Amount
- Amortization Tables (On screen, or printed out)
- Interest Rate-Compound Interest
- Interest Rate-Installment Loan
- Days between Dates
- Day of the Week
- Term of an Installment Loan
- Present Value of a Series of Payments

\*\*\*\*\* FINANCER \*\*\*\*\*

PAYMENT NUMBER	REMAINING PRINCIPAL	MONTHLY PAYMENT	PRINCIPAL PAYMENT	INTEREST PAYMENT
1	97968.92	951.84	33.09	916.75
2	97833.52	951.84	33.40	918.44
3	97699.80	951.84	33.71	919.13
4	97567.76	951.84	34.03	919.81
5	97437.42	951.84	34.35	920.49
6	97308.76	951.84	34.67	921.17
7	97181.76	951.84	35.00	921.84
8	97056.44	951.84	35.32	922.52
9	96932.80	951.84	35.65	923.19
10	96810.80	951.84	35.99	923.85
11	96690.40	951.84	36.33	924.51
12	96571.60	951.84	36.67	925.17

YEAR OF LOAN: 1    \$98000.00 FOR 360 MONTHS AT 11.25 %  
PRESS ENTER TO CONTINUE, I TO RETURN TO MENU

Amortization on Screen or Printed Out

Handy way to check out your financial situations. Simple on screen instructions for each module. "I've used several similar programs and FINANCER is the best."-G.W., Montana

IBM & Compatibles, Apple II family, any printer optional

**\$19.95**

## CATMAN™ Catalog Your Books, Records, Tapes with Ease

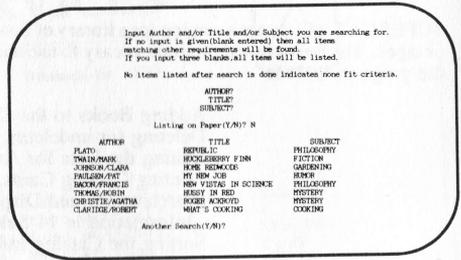
CATMAN is a mini-file system that is very simple to use but is very useful. You input author, title, and subject for each of your books (records, tapes, what have you) according to prompts by the computer. Up to 3000 items can be cataloged on one diskette (1000 for Apple).

Once you have your catalog started it's easy to add or delete items. And when you want to find or check something, use the search option. Find all your records by Mozart (or the Stones). Everything on accounting (or backpacking). Search in any combination you need. For any search you can also get a listing printed out.

When you don't want to fool with the complexities of a \$700 database program use CATMAN! For more sophisticated cataloging then SUPERCAT is your choice.

IBM & Compatibles, Apple II family, any printer optional

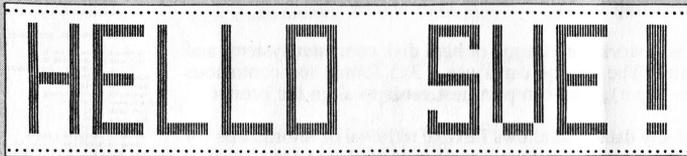
**\$19.95**



Get Listings on Screen or Printed Out

## HEADLINER™ To Get Your Message Across !

Create banners and signs in a variety of type sizes. Input your message and print it out in letters up to 13" high. You can use letters, numbers, punctuation marks, or common symbols.



The letter sizes available include 1-3/4" to 7" with paper 8-1/2" wide. On 14" wide paper you can also use 9", 11" and 13" letters. The message prints sideways and can be any length.

Headliner is just the thing for parties or children's activities and at the office or store to create signs and notices.

Selected by PC Magazine for its 1985 Holiday Wish List.

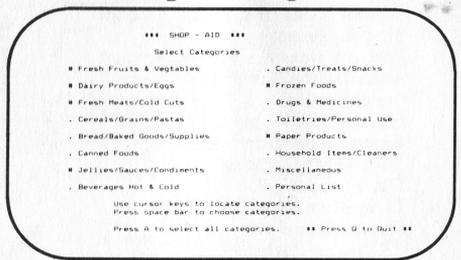
IBM & Compatibles, Apple II family, any type of printer.

**\$19.95**

## SHOP-AID™ Easy Shopping Lists, & Never Forget a Thing! New!

Shop-Aid makes it easy to create your shopping list for your trip to the supermarket. It has a built-in database of all the essential and not-so-essential items you need to buy. You can also add any special items you want to the database to customize program use. You get a neat printed list ready to start your trip down the aisles.

First select any (or all) of the basic categories you need, such as fresh fruits and vegetables, dairy products, etc. Then pick each item from the detailed lists that are flashed on to the screen. After making your selections, press a key and your list prints out in a handy, organized format.



Easily Make Your Shopping List, Don't Forget a Thing!

The program is designed to be very easy to use so that you will be able to quickly make your lists. Easier than by hand and you'll be sure to remember not to forget anything!

IBM & Compatibles, Apple II family

**\$24.95**

## STATCALC™ To Learn and Use Statistics

STATCALC is an integrated set of statistical functions in an easy to use package. The program is designed to be used by students to learn the basics of statistics as well as by experienced users to perform many of the most important statistical calculations. The functions of STATCALC include:

- Correlation and Regression (linear)
- Binomial Distribution
- Normal(Gaussian) Distribution
- Poisson Distribution
- Chi-Square Distribution
- Student's T Distribution
- Data Handling Routine for Input/Output

```

***** EVALUATE A KNOWN VALUE OF Z ( # OF STANDARD DEVIATIONS) *****
THIS ROUTINE CALCULATES THE AREA UNDER THE NORMAL DISTRIBUTION CURVE
FROM ZERO TO Z AND FOR +/- Z FROM ZERO (ONE SIDED AND TWO SIDED AREAS)
ALSO CALCULATED IS AREA FROM Z TO INFINITY AND Z TO +/- INFINITY
(OHE TAILED AND TWO TAILED AREAS)

ENTER VALUE OF Z 2.35

ONE SIDED AREA(PROBABILITY) FOR ZERO TO Z = .4906133
TWO SIDED AREA(PROBABILITY) FOR ZERO TO +/- Z = .9812266
ONE TAILED AREA(PROBABILITY) FOR Z TO INFINITY = 9.35569E-03
TWO TAILED AREA(PROBABILITY) FOR Z TO +/- INFINITY = 1.877338E-02

ANOTHER Z EVALUATION ?(Y/N)
    
```

A Variety of Functions Ready to Use

The data handling routine allows easy entry of data for storage and retrieval from disk and will calculate basic parameters such as mean, median, standard deviation, maximum, minimum, range, chi-square value, and will sort the data. It will also display data files for review or editing or for output to a printer.

The program comes with a user's manual that explains how to use STATCALC and provides an introduction to statistical theory with practical examples for each function of the program.

IBM & Compatibles, Apple II family, printer optional

**\$39.95**

Order Today!

 1-800-533-6666   
In PA 412-422-6600

## LABELWORKS™ Lists and Labels Made Easy!

**New!**

Create and maintain mailing lists and print labels in several formats. You can choose from 1-across, 2-across, 3-across, or 4-across labels of standard sizes. The entry of names and addresses is done with an easy to use fill-in form on screen. It's a snap to add, revise or delete names. Ideal system for your personal lists, for small business use or for clubs, church groups or others needing lists. In addition to the label formats, you can print listings on regular paper as reference documents.

```

Robert W. Ellison
Robotics Today, Inc.
845 Santa Helena St.
Torrey Pines, CA 93451
    
```

LabelWorks also lets you prints general labels, such as name tags or labels for storage boxes, food containers and similar uses. There are several formats to choose from, some with expanded size characters if you are using a dot matrix printer.

Create Mailing Lists & Labels, Plus General Labels

A handy program to organize your lists for mailings or reference or to generate labels for identification and classification. Stores thousands of names per floppy disk or on harddisk systems. Simple to use, just start the program and you can begin entering names, following on-screen directions.

IBM & Compatibles, Apple II family

**\$29.95**

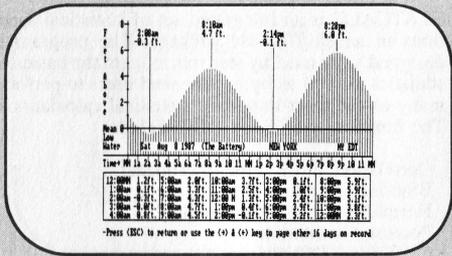
**New!**

## TideMaster™ Instant Tide Data for U.S. Coasts

TideMaster gives you all the tide data you need, ready to use! No corrections to make, no calculations, no tables to look up. It's easy, fast and accurate! Just select location from screen, pick date and instantly get:

- High and Low Tide Times, AM and PM
- Actual Levels Above Mean Low Tide
- Tables and Graphs on Screen or Printed
- 1 to 24 Month Tables, 3 Formats to Choose
- For Any Day or Month in 1987 or 1988
- Over 2000 Coast Locations Included (in complete TideMaster series)

Yearly updates are available to registered users.



Tide Graphs Plotted on Screen or Printed

TideMaster calculations are equal in accuracy to U.S. Government tide information. The technical developer, Coastal Computer Co., is based on over 25 years experience of advanced computer analysis. The complete TideMaster series for the U.S. coastal states is equivalent to over 1,500,000 pages of tide data for your instant access! Comes with complete User's Manual.

IBM & Compatibles, Any Printer for Tables, Any Graphics Printer for Plots

**\$39.95 per state.**

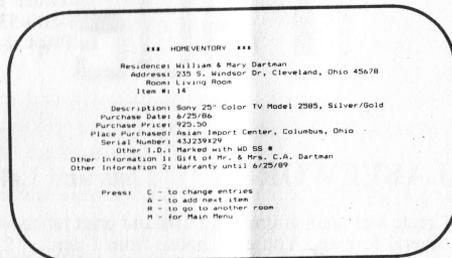
**New!**

## HOMEVENTORY™ Inventory your Home & Valuables!

Lets you easily create an inventory of your home and its contents. Comes with rooms already defined, plus ones you can name to meet your own house configuration. For the items in each room you enter descriptions, prices, purchase date, serial numbers or other identification and related information. This forms a valuable reference list of your possessions for insurance records or for keeping track of your possessions or collections.

Once you have set-up your inventory, you can later add, revise or delete items to keep it current. You can print out the inventory by room or for all the house. Keep the printouts with your other valuable papers.

In addition you can get the total value of each room's contents or for the whole house. If you've been meaning to take inventory of your home but couldn't seem to get started, HomeVentory will make it easy and efficient. And you'll have a permanent record that you can update to maintain it's value.



Take Inventory of Your Home, A Valuable Record

IBM & Compatibles, Apple II family

**\$24.95**

**Join Our Thousands of Satisfied Customers!**



New!

**ORACLE-EAST™ Secrets of the I Ching Revealed!**

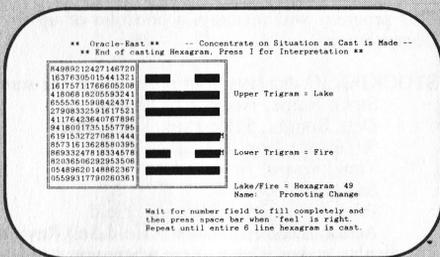
ORACLE-EAST is a modern implementation of the ancient Chinese way of fortune telling. This is based on the 4000 year old book called the I Ching, or Book of Changes. It has been in use, and elaborated upon, since before the time of Confucius. The way of entry to the I Ching was traditionally by the method of selecting yarrow sticks or tossing coins. Oracle-East substitutes the random number ability of the computer combined with human interaction to achieve the same end.

The casting technique generates the so-called trigrams in pairs that form one of the possible hexagrams of the I Ching to which traditional interpretations apply. The results are also influenced by 'moving' lines which modify an interpretation. The meanings of the I Ching remain subject to scholarly research.

The I Ching is one of the Five Classics of Confucianism and is essentially a dualistic approach to man and nature. This sees events shaped by opposite forces such as hot/cold, male/female and the like. Oracle-East provides these insights with the convenience of the computer, giving these readings on the screen. Also included is a brief history of the I Ching and an explanation of how it is to be applied.

IBM & Compatibles, Apple II family

\$24.95



Cast Your Hexagram, Then Get Interpretation

**CHESSCHAMP™ A Classic Game in a Modern Form**

For chess players novice to intermediate (you choose the level). The basic rules of chess are included as a menu option to refresh your memory or teach the beginner. You can also display the chessmen designs and names. A detailed help menu can be called up anytime during play to assist you in using the functions available.

The chessmen are displayed on a full screen board with distinctive black and white design for easy play. All regular chess moves are programmed in. You can play the computer or have it play each side. Choose to be black or white and, if you want, exchange sides with the computer during play. The board set-up can be changed to any arrangement you wish to try for special situations. Altogether a very flexible program and fun to play.

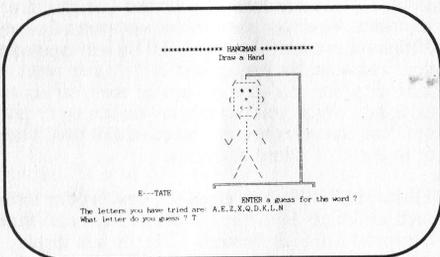
IBM & Compatibles only, no graphics needed

\$24.95

**GAMEPAK™ Nine Games on One Disk!**

Select from a menu to play any of these games:

- \* **Blackjack** - The computer is dealer and up to 7 humans play against him. Just like the real thing at Vegas!
- \* **Football** - Full screen playing field. Call 7 different plays.
- \* **Poker** - Five card draw, nothing wild. Wipe out the computer?
- \* **Hangman** - Guess the word or the games's up. Choose word difficulty to suit kids or adults.
- \* **Life** - Growth or decline of your colonies. Fascinating to watch!
- \* **Alphalagic** - Remember Mastermind? This game uses letter combinations for you to deduce.
- \* **Checkers** - Complete simulation. Watch the computer!
- \* **Tic-Tac-Toe** - Fun for the kids. Keeps score.
- \* **Peg-IQ** - Jump the pegs. Leave one and you're a genius.



Play Hangman or 8 Other Games

Lots of fun for a modest price.

IBM & Compatibles, Apple II family(with 80 column screen)

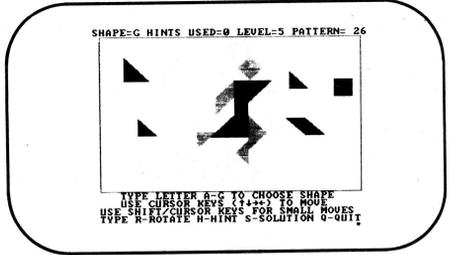
\$24.95

**New!**

**PuzzlePix™ Solve the Puzzle on Screen** Choose from 100 Puzzles, or Create Your Own!

PuzzlePix is a modern implementation of the ancient Chinese game of tangrams. By using simple shapes you can create interesting puzzle forms, only your imagination is the limit. Or you choose from the built-in library of 100 puzzles.

You play the game with one or more persons. After choosing or creating a puzzle then you or your opponent assemble the pieces to match the puzzle outlined on screen. This can be easy if only one or two pieces remain to be placed, or very difficult if no pieces are already in place. Once you have correctly completed the puzzle you are congratulated by the computer! There is a clock that times each player so that you can measure performance or make it a competitive event.



The playing technique is easy. On screen you see the missing pieces, each labeled with a letter. You press a letter to choose a piece and then you can move the piece with the cursor control arrows to any position on screen. You can make large movements or choose fine movements for exact placement. You may also rotate any piece to position it properly. The play is easy, figuring out which piece goes where is the fun part!

PuzzlePix is a great game for all members of the family, from the four year old to Grandad. With the options for creating your own puzzles, choosing from the library, and racing the clock or a friend, you'll get lots of play from PuzzlePix!

IBM & Compatibles with CGA or EGA graphics.

**\$29.95**

**BIODATA™ Biorhythms and Birthdate Facts**

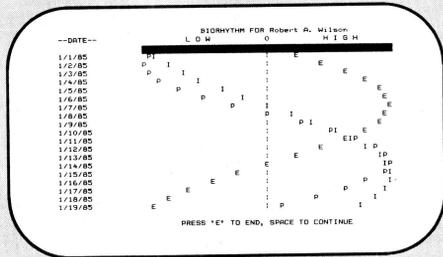
BIODATA takes your birthdate and calculates various facts about this event. You get on screen, or printed out, a continuous biorhythm chart (for any time period and length you specify) showing the condition of your emotional, physical, and intellectual being. According to the theories of biorhythms, these charts predict the favorable and unfavorable times for your activities.

Also part of the program is a calculation of the Julian day for your birth, the number of days since you were born and the day of the week of your birthdate. In addition, BIODATA calculates the celestial longitude of the sun at birth and your astrological sign.

Use for yourself and for family and friends to learn what your biorhythms predict.

IBM & Compatibles, Apple II family, printer optional

**\$19.95**

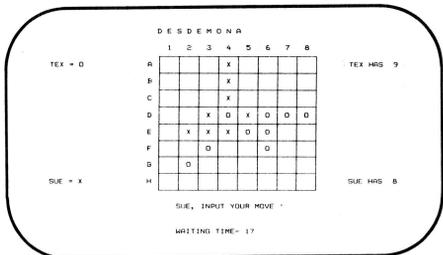


Biorhythms on Screen or Printed Out

**DESDEMONA™ A Challenging Board Strategy Game**

You play the computer or play a friend. The computer keeps track of the board pieces and displays the score.

The game is played by placing your men on the 8x8 board with the intention of trapping your opponents men between yours (the captured men change sides). Then your opponent plays likewise. The player with the most men on the board at the end wins. The rules are simple but it's very challenging for players with good strategy. Beating the computer isn't easy!



Play the Computer or a Friend

IBM & Compatibles, Apple II family, no graphics required **\$19.95**

## HOROSCOPICS™ What the Stars Have in Store for You!

Fun and easy to use. You input name, date and time of birth, and place of birth (latitude and longitude). Then your computer does highly accurate calculations to determine the exact sky conditions at the time of your birth.

Using these results, a horoscope chart is printed which shows the zodiac constellations relative to the earth and plots the positions in the sky of the sun, moon, and all 8 other planets. Any 80 column printer may be used, no graphics required.

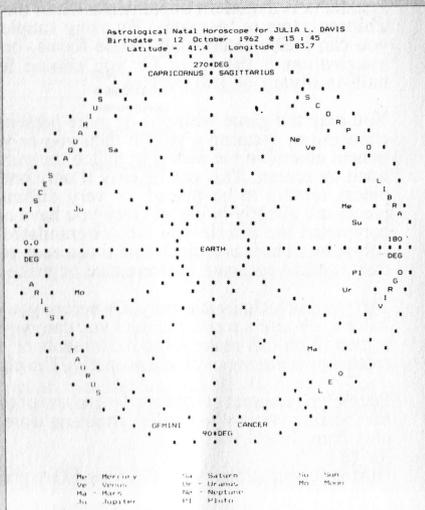
Next is printed a table of 8 astronomical parameters (geocentric longitude, distance from earth, etc.) for the sun, moon, and planets so that detailed analysis is possible for the advanced astrologer. An astrological reading is then given based on the positions of the sun (sun sign), moon (moon sign), and each planet. The readings are according to traditional astrological interpretations.

Also provided is a table for determining the ascendant sign, and the associated interpretation.

Finally, there is an analysis of the conjunctions and oppositions of the sun, moon, and planets for your time of birth.

Family, friends and relatives will find your astrological analysis fascinating and fun. Don't blame us if you're swamped with requests!

IBM & Compatibles, Apple II family, any 80 column printer.



Get Chart Plus 3 More Pages

\$24.95

New!

## NUMBERSCOPE™ The World of Numbers and Life

This program does analysis of your name and birthdate and provides an interpretation based on the traditions of Numerology handed down since the Babylonians. Meaning is revealed by the letters and numbers and their arrangements. The computer eliminates the drudgery of calculations and cross referencing.

NUMBERSCOPE includes the readings of traditional texts that associate meaning with numbers. The letters of the name are assigned number values for analysis and the birthdate numbers likewise interact. The results of the analysis include the following:

Motivation, Expression and Inner-self Numbers  
 Karmic Lessons to be Learned  
 Hidden Tendencies and Subconscious Response  
 Destiny Number, Life Cycles and Turning Points

Also included is a brief history of Numerology and how it is applied. There are some example names and birthdates for famous people that you can use to test the results of Numerology against your own results and those of friends.

IBM & Compatibles, Apple II family

NumberScope - Part I Reading for: ROBERT WILLIAM FLETCHER

Motivation number = 4  
 Conservative, enjoys structure and method, avoids change.

Inner-self number = 5  
 Seeks adventure, travel is powerful urge, happy-go-lucky.

Expression number = 9  
 Wide vision, philosophic and worldly, gifts are shared.

Karmic Lessons to be learned (if any):  
 7. Emotions can flow but must be controlled or they control you.

Hidden Tendencies (if any):  
 3. Disregards energies by lack of focus, impatient and restless.  
 5. Intellectually restless, seeks change without reason.  
 9. Idealist seeking world harmony, impractical in daily affairs.

Press Return to continue

Easy Numerology Analysis, No Fuss, No Calculations!

\$19.95

Order Today!

1-800-533-6666  
 In PA 412-422-6600

## Ordering Information

---

**Telephone Orders** - Call toll free 1-800-533-6666, 9-9, Mon. thru Sat. In Pennsylvania or for information call 412-422-6600. Please have your VISA or MasterCard number and expiration date ready. Quickest way to place and receive your order.

**Payment** - We accept check, money order, VISA or MasterCard. P.O.'s accepted from schools or other recognized organizations. Sorry, we can not accept C.O.D. orders.

**Shipping** - Add \$3.00 to your order total to cover postage and handling to addresses in the U.S., Canada and Mexico. For overseas addresses add \$5.00 for shipping. U.S. orders are shipped first class mail. Overseas orders are shipped air parcel post.

**Foreign Orders** - Use of your VISA or MasterCard is preferred. Checks will be accepted only if payable in U.S. dollars and drawn on a bank (or branch) located in the U.S.

**Computer Type** - Avoid delays, please remember to indicate your make and model of computer (such as Apple IIe, IBM XT, or compatible type). Note that some programs are available only for a particular computer type.

**Free Catalogs** - Does one of your friends have an IBM or Apple computer? Just fill in the name and address on the order form and we will mail a catalog right away.

**Guarantee** - Disk are warranted against defects in the media. Return any defective disk within 30 days for a free replacement.

**ORDER FORM**  
**Zephyr Services**

1900 Murray Avenue  
 Pittsburgh, PA 15217

Order Toll Free 1-800-533-6666

 **9-9, Mon. to Sat.**   
 In PA or for Info, call 412-422-6600

Quality Software for  
 IBM and Apple Computers



Date \_\_\_\_\_

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY/STATE/ZIP \_\_\_\_\_

TYPE OF COMPUTER \_\_\_\_\_ PHONE \_\_\_\_\_

QTY	DESCRIPTION	UNIT \$	TOTAL
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Type of Payment:

Check/Money Order





SUBTOTAL \_\_\_\_\_

6% TAX(PA. RESIDENTS) \_\_\_\_\_

SHIPPING **\$3.00** \_\_\_\_\_

TOTAL \_\_\_\_\_

Card # \_\_\_\_\_

Expiration Date \_\_\_\_\_

Signature \_\_\_\_\_

(for charge cards)

**THANK YOU FOR YOUR ORDER !**

**Join Our Thousand of Satisfied Customers,** in all 50 States and over 70 countries. Including schools & universities (Princeton, Harvard, Berkeley, Georgia Tech, many more), businesses (General Motors, Standard Oil, IBM, Westinghouse, etc.), governments and individual computer users worldwide. Some actual comments on our products and service:

*"I was impressed by the speed of your service and the quality of your programs."* J.H., Saddle River, N.J.

*"Vocabulator - Recommended: Excellent"* - **Electronic Learning Magazine**

*"Astrostell is a perfect delight, one I would have like to have written myself."* Prof. M.F., Collegeville, MN

*"Financer does the job well and with ease."* E.G., Nanticoke, PA

*"I was immediately impressed with Chemicalc, would like more similar programs."* G.H., Honolulu, HI

*"Horoscopes does a good job at a reasonable price. Excellent!"* P.G., Williamsville, NY

*"Supercat is a good program for cataloging our office library."* C.O., Revere, MA

*"Statcalc fits my needs and I like the selection of statistical functions."* J.C., Eustis, FL

*"Astrocalc more than met my expectations. Would recommend it to anyone."* Observatory Director, NJ

## Our 6th Year of Business

Please send a copy of this catalog to my friend who has an Apple or IBM personal computer:

name \_\_\_\_\_

company \_\_\_\_\_

address \_\_\_\_\_

city \_\_\_\_\_

state/zip \_\_\_\_\_

Brand of Computer:  Apple  IBM PC

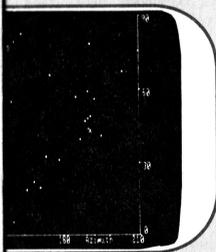
TEAR OFF HERE & MAIL TODAY.

This flap is gummed and ready to seal.

Enclose order form, check or credit card information, seal and mail.

e!

**New!**



Time and Location

(Epson FX,LX,JX,EX,  
**\$69.95**)

ayed

**New!**



Limits of Visibility

**\$29.95**



ORDE

**Zephyr**

1900 Mu  
Pittsburg

Order Toll Fr

 9-9, M

In PA or for It

(Please Print)  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_  
State \_\_\_\_\_ Zip \_\_\_\_\_

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY/STATE/ZIP \_\_\_\_\_

TYPE OF COMPL \_\_\_\_\_

QTY \_\_\_\_\_

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Type of Payment:

Check/Money





Card # \_\_\_\_\_

Expiration Date \_\_\_\_\_

Signature \_\_\_\_\_

(for charge cards)



**Zephyr Services**

1900 Murray Avenue  
Pittsburgh, PA 15217

Place  
Stamp  
Here

## ASTROFINDER™ Planetarium, Chart Maker & More!

**New!**

### Features for Everyone - Amateur & Professional

Simulated Skyviews on Screen, Your Date/Location Star Charts in 4 Formats, to Selected 5th Magnitude 30 Page Star Catalog, on Screen or Print Out Manual with 14 Page Star Atlas, 2 Diskettes

**Skyviews for Your Date, Time and Location**

1/4 of Night Sky Realistically Simulated on Screen Center on Selected Object, Use Star Magnitude Filter Or Choose Any Azimuth (0-360 degrees) on Your Horizon Planning Screen Gives Alt./Azimuth Table, & Moon Status

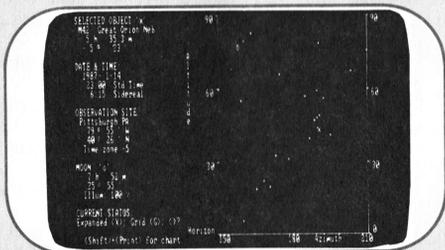
**Get Star Charts Printed in 4 Formats**

Skyview with Observing Conditions Given, Expanded Skyview Ultra-Plots (7"x10") with 1/8 Deg. Resolution Coordinate Grids on Charts or as Separate Charts Batch Mode, to Print Up to 20 Charts Automatically Linearized Transverse Mercator Projections for Charts

**Auto-Retrieval of Objects to Screen, or Charts**

Just Enter ID and Get Objects on Screen/Chart, All Messier Objects Deep-Sky Objects File, Add More as You Wish, Planets & Comets Tables LaGrangian Interpolation for Accurate Location

IBM & compatibles with CGA or EGA graphics, any graphics printer for charts (Epson FX,LX,JX,EX, IBM Proprinter, Oki 192+, 193+, or equiv. for Ultra-Plots). **\$69.95**



The Night Sky for Your Time and Location

*Handwritten signature or scribble.*

## SUNTRACKER™ Solar Eclipses Calculated and Displayed

**New!**

Calculates astronomical conditions for any solar eclipse and displays a map with areas of visibility. The program computes and provides eclipse elements, accurate to 12 miles on the Earth's surface. Or you can input elements to achieve greater accuracy. Using data from EclipseMaster, the accuracy is to within 1-mile.

The central line of the eclipse is plotted on a world map and the limits of visibility for a partial eclipse are also plotted. User can specify the percent of coverage of the Sun's diameter for the partial eclipse. Tabular data for the eclipse includes central line location, width, duration of totality and the altitude of the Sun. Complete with user's Manual.



Central Eclipse Line & Limits of Visibility

IBM & Compatibles, Apple II family, Commodore 64/128

**\$29.95**

Order Today!  
 1-800-533-6666   
 In PA 412-422-6600

## ASTROCALC™ For What's Happening in the Sky!

You input time, day, month and year and your latitude and longitude. Then ASTROCALC does scientifically accurate calculations to give you all of the following for the sun, moon, and all planets:

- Right Ascension and Declination
- Altitude and Azimuth
- Ecliptic Latitude and Longitude
- Angular Size, Degrees or Arc Seconds
- Phase, Fraction Illuminated
- Elongation from Sun
- Orbital Elements for each Body
- Rise/Set Times
- Brightness, in Astronomical Magnitude
- Distances from Sun and Earth

Also provided are:

- Local Standard Time
- Greenwich Mean Time
- Local Sidereal Time
- Greenwich Sidereal Time
- Solar Equation of Time
- Twilight Start/End Times

In summary, all basic astronomical data (both heliocentric and geocentric) is calculated for any date and location of interest. ASTROCALC uses double precision calculations for increased accuracy. Most results are accurate to within a minute of arc over the range 1700 to 2200 AD, with decreasing accuracy the more distant in time.

A must program for astronomers, students, advanced astrologers or anyone interested in the sky. A detailed user's manual is provided which explains the basics of positional astronomy and program use. Thousands of satisfied users, worldwide.

IBM & Compatibles, Apple II family, Commodore 64/128

**\$29.95**

SUMMARY TABLE									
ASTRONOMICAL DATA FOR 20 7 6 / 1984 @ 22.45 EDT LAT+ 40.45 LONG+ 80.37									
	R.A.	DEC.	RISE	SET	AZM	ALT	DIST-AU	MAG	
SUN	5 HR 60 MN	23 DEG 27 MN	5.94	20.83	323	-16	1.0		
MOON	23 HR 54 MN	4 DEG 2 MN	1.64	12.95	68	-32	.003		
MERCURY	5 HR 49 MN	24 DEG 16 MN	5.70	20.72	325	-17	1.3	-0.8	
VENUS	6 HR 6 MN	23 DEG 51 MN	6.02	20.97	321	-15	1.7	-3.1	
MARS	14 HR 25 MN	-18 DEG 60 MN	16.98	2.96	193	32	0.6	-0.8	
JUPITER	18 HR 40 MN	-23 DEG 3 MN	21.07	6.63	194	12	4.2	-2.2	
SATURN	14 HR 36 MN	-15 DEG 37 MN	16.72	3.20	194	16	9.2	1.2	
URANUS	16 HR 33 MN	-21 DEG 54 MN	19.28	4.61	162	26	18.1	5.8	
NEPTUNE	18 HR 2 MN	-22 DEG 14 MN	20.79	6.07	141	17	29.3	7.9	
PLUTO	14 HR 11 MN	4 DEG 14 MN	15.34	3.82	208	51	29.3	14.2	

NOTES: RISE/SET TIMES ARE DECIMAL HOURS, E.G., 19.50 = 19 HR 30 MIN  
 FOR AZIMUTH, NORTH = 0, EAST = 90, ETC. ALTITUDE IS +/- DEGREES  
 + ABOVE HORIZON, - BELOW HORIZON  
 AU=ASTRONOMICAL UNIT=AVERAGE EARTH/SUN DIST. = 149.6 MILLION KM  
 DISTANCE IS FROM EARTH  
 MAG= MAGNITUDE  
 ENTER G TO GET GRAPHIC SUMMARY, OR PRESS ENTER TO RUN ANOTHER CASE OR EXIT

Summary Table, Plus 18 Data Screens

**New!**

## MOONTRACKER™ Lunar Eclipses Computed and Displayed

Calculates the circumstances for a lunar eclipse and then displays the areas of visibility on a world map, including penumbral and umbral phases, and the rise/set lines.

Tabular data is also generated including fraction coverage of moon's diameter by penumbra and umbra, position angle of shadow, longitude & latitude of point directly under moon, degrees separating the centers of the Earth & Moon shadows, angular radius of the penumbra & umbra, angular diameter of the moon.



Map Shows Phases of Any Lunar Eclipse

The accuracy of the results is to within 16 miles. One mile accuracy is achieved with input from the EclipseMaster program.

IBM & Compatibles, Apple II family, Commodore 64/128

**\$29.95**

## ASTROSTELL™ The Constellations and Their Treasures

ASTROSTELL uses your computer to teach the constellations. All 88 constellations are included plus the many deep sky objects they contain. The constellations are shown on screen using 4 levels of star brightness to approximate what is seen in the sky. The features of the program include:

- \* Call up Constellations by Name to Screen
- \* Random Display Mode to Guess Correct Names
- \* Gives Names and Magnitudes of Bright Stars
- \* Shows Deep Sky Objects & Descriptions (galaxies, star clusters, nebula, double stars)
- \* Option to show stars only or with objects
- \* Classical Lore Given for Each Constellation

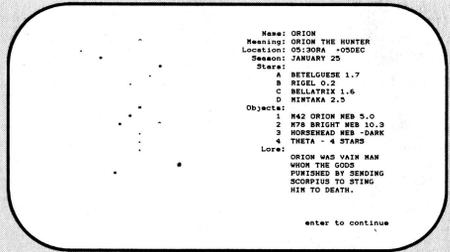
ASTROSTELL lets you input date, time, and your latitude and longitude and then the program lists the constellations visible in the sky for these conditions. Then you may display the ones you wish on the screen. No graphics board is required.

The program also includes background information on the history of the constellations, the development of star charts and observing tips to learn the constellation, plus how to use a telescope.

For all astronomers, amateur or professional, young and old.

IBM & Compatibles, Apple II family(with 80 column screen)

**\$29.95**



88 Constellations & Basic Data

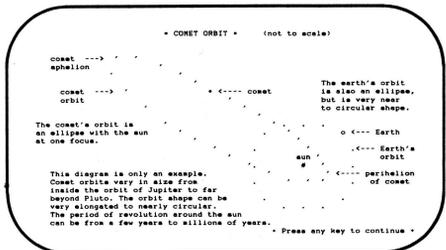
Order Today!

IBM 1-800-533-6666  
In PA 412-422-6600

## COMETWATCH™ All About Comet's, Including Halley's

Includes extensive information about comets and how to observe and photograph them. For Halley's comet it gives the history and details of the 1985/1986 and other returns. Activities for using the program are also included. The calculations provided are:

- \* On-screen plot of any comet orbit with orbits of Mars, Jupiter, Saturn, and Uranus for reference. Table of comet data provided or input your own.
- \* Halley's position in the sky for any date, time, latitude and longitude for 1985/1986 return. Gives altitude and azimuth.



Orbit Example, Calculate Others

- \* Halley/Sun/Earth encounter. For any Halley return, past or future, plots path of Halley and Earth around the sun.

For the amateur astronomer or in the classroom, Cometwatch is an excellent introduction to comets.

IBM & Compatibles, Apple II family, Commodore 64/128

**\$29.95**

## ASTROBASE™ A Database for the Sky beyond Pluto

This program is for astronomical observers and anyone curious about what is in the sky beyond our solar system. Valuable for all astronomers or students from middle school and up.

ASTROBASE is a mini-database system that contains, built-in, the 300 most important astronomical objects of the deep sky (beyond our solar system). Besides the 300 objects already stored, you can add up to 700 more objects of interest (up to 400 for Apple). Among the 300 objects in ASTROBASE are the following types:

- Galaxies
- Open Star Clusters
- Globular Star Clusters
- Emission Nebula
- Dark Nebula
- Planetary Nebula
- Double Stars
- Variable Stars
- Quasars & Special Stars

```

***** EDIT AN OBJECT / ENTER OBSERVATIONS *****
YOU CAN EDIT ONE OBJECT AT A TIME
ENTER OFFICIAL DESIGNATION (EX: NGC4755) ? NGC224

OFFICIAL DESIGNATION (MCG224 )
OTHER DESIGNATION (531 )
COMMON NAME (ANDROMEDA NEB. )
CONSTELLATION (AND)
LOCATION (0040+4100)
TYPE OF OBJECT (GLX)
ANGULAR DIAMETER (160)
BRIGHTNESS MAGNITUDE (3.0 )
DESCRIPTION (R111 ) SR 160'X40'NAKED!!
DATE OBSERVED (200913) USE FORMAT YYYYMM. USE ALL PLACES
PLACE OBSERVED (WOODSTOCK,VT )
SKY CONDITIONS (CLEAR & DARK)
EQUIPMENT USED (16" NEWTONIAN )
OBSERVATION COMMENTS (FABULOUS ! CLUSTERS SEEN )

FILL IN ALL INFORMATION AS DESIRED. TYPE ONE FIELD, THEN PRESS ENTER TO GO TO
NEXT FIELD. AFTER LAST FIELD IS FILLED YOU HAVE OPTION TO SAVE, CHANGE OR QUIT
    
```

300 Objects, Plus Add Your Own

These objects represent the variety of what exists in the cosmos and are considered the most important of their type. All are observable in telescopes of amateur size (6 to 16 inches aperture) and include the most famous objects such as Messier's list and other compilations.

You can do searches for types of objects and display or print resulting lists. You also can display which objects are visible in the sky for any day and time you choose as an aid for observing. ASTROBASE can be an observing log to record date, conditions, and other information about each object as you observe them. See all 300 objects and you will have a thorough tour of the universe!

Comes with manual explaining program use and the fundamentals of astronomy related to the objects in ASTROBASE.

IBM & Compatibles, Apple II family, printer optional

**\$29.95**

Order Today!  
 1-800-533-6666   
 In PA 412-422-6600

**New!**

## ECLIPSEMASTER™ High Accuracy Eclipse Data!

Computes solar and lunar eclipses within 1-mile accuracy for central line, 1/20 of 1% magnitude for solar or lunar eclipses. Accurate to 3" of arc in longitude & 1" in latitude.

All aspects of eclipse calculations are included: central line, local circumstances, area of visibility, duration, width of central line, finding of eclipse seasons for any year. Also computes the elements of an occultation of a star or planet by the moon.

IBM & Compatibles, Apple II family, Commodore 64/128

**\$29.95**



## PHYSICALC™ Introduction to the Concepts of Physics

The major areas of mechanics, gravity, light, quantum mechanics, and relativity are reviewed and explained. 30 key equations of physics are presented, which can easily be used on screen for calculations. The material is suitable for anyone 9th grade and up who is interested in physics, to use at home or in the classroom. Other features include:

- \* Set of physics problems (with solutions) to test understanding of the material presented and demonstrate applications.

- \* Illustrations to provide explanations of concepts and clarify the material. (no graphics required)

- \* Glossary on screen of physics terms, plus a brief history of physics and physicists.

The program is easy to use with a main menu to select activities so you can proceed at your own pace. The material is well organized for review after initial learning is completed.

The intent of PHYSICALC is to provide an introductory survey of the world of physics. The student develops a "feel" for what physics is about and why it is useful and intellectually stimulating. PHYSICALC can point the way to further exploration of topics of special interest to the student.

IBM & Compatibles, Apple II family (with 80 column screen)

**\$29.95**

\*\*\* Electricity - page 3 \*\*\*

Eqn.# Equation

1  $F = qv \sin A$

Description

Force on a moving charge, q, = charge, v = velocity, v x magnetic induction, B

x = sine of angle, A, between B and v

F is perpendicular to B and v

This force is basic for many electrical devices such as motors, first applied by Faraday in 1821.

2  $V = -d\Phi/dt$

The voltage induced, V, in a circuit = change in magnetic flux,  $\Phi$ , per second.

$\Phi = B \times$  area of circuit

x sine, A, of angle between B and area surface

(current flows to oppose changing  $\Phi$ )

basis for electric generators & other devices, used by Faraday in 1831.

\*\*\* Press # for equation you want or 9 for previous screen or 8 for menu \*\*\*

Equations of Electricity Applied

## BIO\*CELL™ Introduction to the Biology of Cells

The major cell structures for plants and animals are illustrated and the function of each organelle is explained. A survey of the various types of cells that make up plants and animals is provided. The material is suitable for anyone 7th grade and up. Other features include:

- \* Testing of student knowledge of cell structure and suggested activities to review understanding.

- \* Introduction to genetics, the structure of the DNA molecule and how it codes genetic information.

- \* Glossary on screen of biological terms related to cells, plus background on how the study of cells developed.

The program is easy to use and you can proceed at your own pace.

IBM & Compatibles, Apple II family (with 80 column display)

**\$29.95**

\*\*\* DNA Structure \*\*\*

The DNA "ladder"

A = adenine base  
T = thymine base  
C = cytosine base  
G = guanine base

A bonds only with T  
C bonds only with G

The many possible sequences of bases allow vast amounts of information to be stored in DNA structure, controlling cell activity and providing genetic information for next generation of cells or a new organism.

\*\*\* Press # for menu \*\*\*

Structure discovered by Watson & Crick in 1953

The DNA double helix as usually found in cells

two nucleotide chains that are held together by hydrogen bonds between bases

--- Press # for menu ---

Portion of uncoiled DNA

DNA Illustrated & Explained

## Join Our Thousands of Satisfied Customers!

## VOCABULATOR™ To Increase Your Vocabulary!

The program comes with a built-in vocabulary with 4 levels of increasing difficulty. You choose the level and then have the option of multiple choice testing or a quick flash card method. The multiple choice method counts the number of words used and the score of correct answers. Nearly 1000 key words are available in the program.

The words in each level are presented in random, non-repeating sequences so that the presentation is different each time the program is used. This is an efficient and easy way to increase your vocabulary.

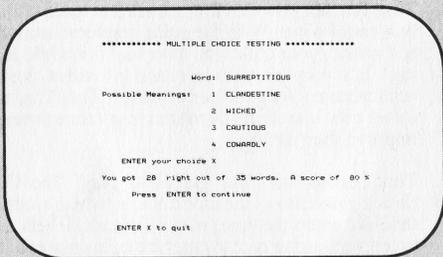
You can also add words to a personal vocabulary list (saved on disk) and build a collection of words you wish to master. Just minutes a day with the built-in vocabulary and your own list and you will develop an excellent command of the language! (Some interesting background information on vocabulary is provided.)

VOCABULATOR is useful in the classroom or at home, for ages from middle school to adult (the highest level is challenging!). The personal list can be used for foreign language drill if desired, by entering English words with their foreign equivalents. Anyone interested in a better vocabulary will benefit from this program.

**“Recommended: Excellent, non-intimidating program”- Electronic Learning Magazine**

IBM & Compatibles, Apple II family

**\$29.95**



Multiple Choice Testing Mode

## BEARINGS™ Which Way Do We Go from Here?

This program is for pilots, skippers, radio amateurs or anyone needing to know precise bearings or great circle directions from one location to another. It's also an interesting lesson in geography. You input latitude and longitude and then the computer calculates and prints out directions and distances to over 500 locations around the globe. The usual azimuth system is used, with 0 degrees as north, 90 as east, 180 as south, 270 as west, etc.

Great for aligning your antenna to pull in those DX stations, or for navigators (real or armchair). Find out which way to go to get to Bora-Bora from your house! Output is ordered by country and city and includes amateur prefixes for each region. An interesting and useful program that can be used in conjunction with the WorldDisk program.

Great Circle Bearings for W'9 X Y Z

Prefix/Country/City	Degs	Dist/km	Prefix/Country/City	Degs	Dist/km
A2/BOISWANA/GABORONE	78	16902	CN/MOROCCO/CASABLANCA	48	9942
A3/REP. OF TUNGA	231	7953	CN/MOROCCO/FEZ	47	10672
A41/OMAN	0	13946	CN/MOROCCO/MARRAKECH	50	10041
A5/BHUTAN	328	12225	CP/BOLIVIA/LA PAZ	124	8165
A64/UNITED ARAB EMIR.	3	13529	CP/BOLIVIA/SUCRE	124	8571
A71/QATAR	5	13314	CR3/JS/BUJNEA-BISSAU	69	10908

Directions and Distances to All the Globe!

IBM & Compatibles, Apple II family, any 80 column printer

**\$19.95**

Order Today!  
 1-800-533-6666   
 In PA 412-422-6600

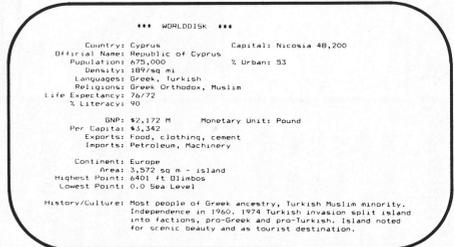


## WORLDDISK™ All the Countries of the World on a Disk!

**New!**

WorldDisk provides all fundamental data for all the countries of the world on a diskette. The data presented includes population, area, percent literacy, GNP total and per capita, the languages spoken, and major religions. There is also data on the imports/exports of the country and a thumb-nail sketch of the history and culture, as well as other information such as regional location and the capital city.

The program can be used by selecting individual countries for review in detail or as a reference. You may also use the comparison mode which allows several countries on the screen at once to compare their vital statistics such as populations, economy etc. The data can be sorted for meaningful comparisons or rankings.



Basic Data & Comparisons Among 160 Countries

WorldDisk is valuable as an educational tool as it makes it very easy and fun to explore and compare the countries of the world. Your children will be fascinated with the variety of our nations. Or use it as a handy reference work.

IBM & Compatibles, Apple II family

**\$29.95**

Order Today!

 1-800-533-6666   
In PA 412-422-6600

## MUSICMAN™ Compose & Play Music on Your Computer

With MUSICMAN you can try your hand at composing music right on the screen with standard musical methods. When finished, press a key and hear your music played. You can save your compositions on disk to replay or modify later. Or listen to any of the ready to play tunes provided with the program.

On screen you see a musical staff of 5 lines (and 2 partial ledger lines above and below) where you place the notes you want to play. You can use whole, half, quarter, eighth or sixteenth notes or rests. The notes can be dotted for extended duration.

You may set any key you want for your composition. Accidental sharps and flats can be placed wherever you need them.

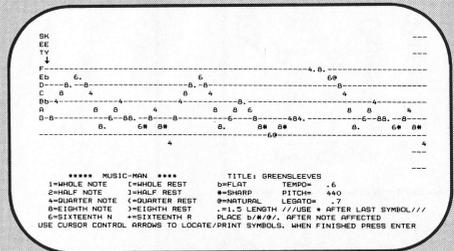
Once your basic composition is done, you can then change tempo (fast to slow) and pitch (above or below the standard A = 440). You can also control the degree of legato effect, if desired. You've got all the basics of musical composition at your fingertips. Use all the variations you need to perfect your music.

MUSICMAN will have you taking on Gershwin, Bach or the Beatles. It's fun and easy to use.

MUSICMAN is useful in the classroom or at home, for ages from grade school to adult for anyone interested in music.

IBM & Compatibles, Apple II family (with 80 column screen)

**\$29.95**



Compose on Screen, Save to Disk

