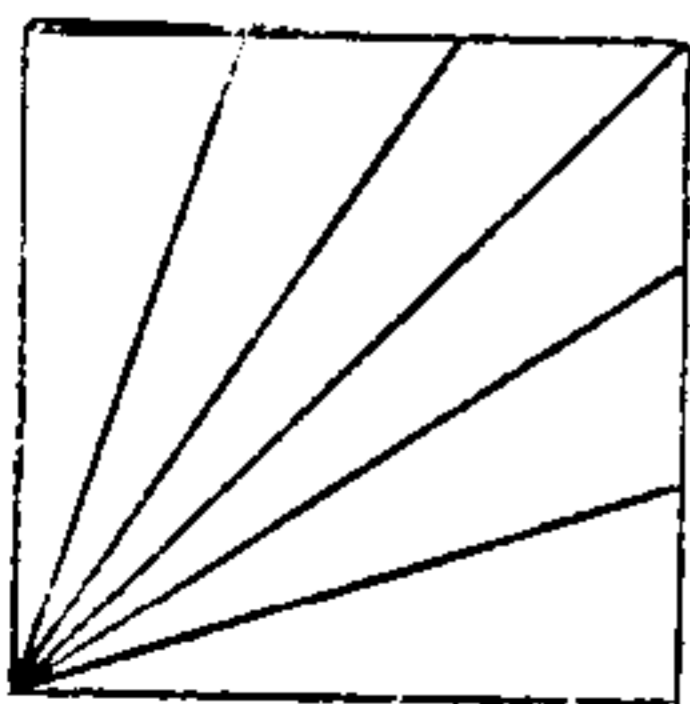# DATA SYSTEMS

COMPUTER SOFTWARE

1982 Software Catalog TI 99/4

2 x 2 Matrix determination

computes the matrix, determinant, and the inverse of the 2 x 2 matrix entered by the user.

3 x 3 Matrix determination

computes the matrix, determinant, and the inverse of the user defined 3 x 3 matrix.

Hyperbolic functions

Computes the hyperbolic function or inverse of the hyperbolic function chosen for the value entered

Quadratic equation

Solves the quadratic equation for x given a second power binomial expression.

Sigma function

Enter the lower and upper values, the increment, and the function, and get the answer

Vector dot product

Computes the vector dot product, given the two vectors. Useful in some physics applications.

Vector cross product

Computes the vector cross product for two vectors - used in some physics applications.

Polar to Rectangular conversion

Enter the coordinates in polar form, and they will be converted to rectangular form.

Prime

Checks to see if the number inputed is prime.

Log

Supply the number, and the log base you wish to use, and its log to your base is outputed.

Factorial

Gives you the factorial of the number entered.

Derivative of a function

Enter a polynomial function, and this program will compute its derivative. Uses product and division rules, so products and divisions of polynomials can also be computed, to a limited extent. Does not do transcendental functions, or functions of functions.

Circle from Three Points

Enter three points in rectangular coordinates, and find the center and radius of the circle they lie on.

Acceleration

Given the acceleration, will compute the velocity and distance travelled at regular time intervals. Useful in some physics applications.

Freefall

Simulates a falling body. You can specify friction (if any) of the body. Will compute distance travelled and speed of the body. Acceleration can also be changed, though the default if Earth's acceleration.

Hydrocarbon Combustion

Enter the chemical formula of the hydrocarbon, and the amount of excess air it is to be burned in. This program will output products, air/fuel ration in moles and grams, and the percentage of products.

ALL PROGRAMS ON THIS PAGE ARE AVALIABLE ON DISKETTE OR TAPE. THESE PROGRAMS ARE $3.00 EACH. SEE LAST PAGE FOR ORDERING INFORMATION.

GRAPHICS --

Letter Styles   Consists of three styles. Package of 3 programs.

                     a) Lower Case Letters
                     b) Large Letters (33% bigger than standard)
                     c) Computer Style Letters

Runs in Extended or Normal Basic. Avaliable on tape or diskettes.

                                        $10.00

TIE Fighter   Picture of a Tie Fighter on the top half of the
                   screen. Runs only in standard basic (will not run
                   in Extended).
Diskette or cassette $ 5.00

Graphics Flags Package   See up to 30 different flags of different
                       countries. Countries listed below:

Andorra, Argentina, Austria, Belgium, Bolivia, Chad, El Salvador, Ethiopia
France, Gabon, Greece, Guatemala, Guinea, Hungary, Iran, Ireland, Italy,
Ivory Coast, Libya, Luxembourg, Mali, Mexico, Netherlands, Nigeria,
Norway, Peru, Switzerland, United States, West Germany, Upper Volta

on tape or diskette $20.00

Satellite   Extended Basic Only
              shows a globe with a satellite circling it on the left of
              the screen. Can be incorporated into your own programs.
tape or diskette $ 4.00

Opening   a good way to begin some programs of your
            own. An explosion of colors spreading outward from the center
            of the screen- demonstrates the color graphics capability
            of the computer very well.
tape or diskette $ 4.00

SOFTWARE MODULE FROM TEXAS INSTRUMENTS

Diagnostic	$28.00
Extended Basic	$90.00
TI LOGO SOFTWARE	$280.00
Terminal Emulator II	$45.00
Video Chess	$60.00
Football	$28.00
Video Games	$28.00
The Attack	$37.00
Hunt the Wumpus	$23.00
Indoor Soccer	$28.00
A-MAZE-ING	$23.00
Home Financial Descision	$28.00
Househould Budget Mangt.	$38.00
Securities Analysis	$50.00
Personal Record Keeping	$47.00
Statistics	$40.00
Tax/Investment Record Kpg	$65.00

Diskettes from Texas Instruments

Programming Aids I	$14.00	
TI Trek Disk	$14.00	speech optional

WORD PROCESSOR PROGRAM FROM EXTENDED SOFTWARE COMPANY

A word processor program that will run in Extended Basic (only), on
any RS232C Interface printer, or on the thermal printer, and produce
upper and lowerase (even on screen print), enhanced print, underlining,
formatting (on printers with this capability). Input typing speed is
over 100 words per minute, lines are from 28 to 254 characters long.
Holds 50,000 characters on a diskette (or 60 minute tape), hold 3000
characters in memory (before storage). Compatible with tape or
disk storage, and comes with complete editing features. 20 page instruction
booklet included.

Money back guarantee: If you are not completely satisfied with the package,
return it within 15 days to Extended Software Company, for a full refund
of the purchase price.

Cassette $32.00
Diskette $35.00

BUSINESS PROGRAMS --

Amortization
        Enter the interest rate, amount of payments, and amount borrowed,
and this program will print up a customized amortization table. Designed
to run on Port 1 of your RS232 interface, on an Epson MX-70, this program
can be easily converted for other printers or peripheral devices.

                                        $5.00 disk or cassette

Compound Interest Business Package

This disk is composed of five programs, explained below. They run
on Extended Basic and are avaliable only on disk.

MENU- explains how to run the program and helps you choose the correct program

AMOUNT PAID AS INTEREST - Enter the principal, interest rate, and time period,
                          and the total interest paid is output.

NUMBER OF TIME PERIODS - Calculates the number of periods in a compound
                          interest calculation given future value of principal,
                          present amount, and interest rate.

FUTURE VALUE   - Calculates the future amount of the principal given
                          interest rate, principal, and amount of time

INTEREST RATE   - Calculates the interest rate given the future value,
                          principal initially, and amount of time.

                                        $10.00

GENERAL WILL

This program will print up a will legal in the United States if signed by
you and three witnesses. Just enter the information asked for on the screen.
Should be run in Extended Basic, and is avaliable only on diskette.
Designed for use on Port 1 of your RS232 interface, on an Epson MX-70
printer, it can easily be converted to your printer.

                                        $18.00

DEPRECIATION
        Computes depreciation by three different methods:

                1. Straight line
                2. Sum of Years' Digits
                3. Declining balance

Input the number of years of useful life, your cost, the salvage value,
and the rate (for declining balance only), and you will get the depreceation
over a number of years. Output can be on screen, or to printer hooked
up at Port 1 of your RS232 interface.

                                        $10.00

EDUCATIONAL PROGRAMS ---

ARITHMATIC TUTOR: For early grade school. Quizes on addition, subtraction, multiplication and division. Gives an initial 10 problems: if less than seven are answered correctly, gives additional problems depending on how many were incorrect. Only two and three digit numbers are used. Upon completion of all four excersices, the computer cycles to a game program. This program can be modified within reasonable standards for you, as desired.

    Needed: Extended Basic, Disk Drive

                                                  $10.00

CHEMTUTOR 1   For basic high school chemistry classes. Quizes the user on names and symbols of elements, radical formulas, oxidation states, and on solubility rules. The user enters the number and type of problems desired.

    Needed : Extended Basic
             avaliable on diskette or on tape $10.00

CHEMTUTOR 2   For a later stage in a basic chemistry class. Quizes on the electron suborbitals: the computer supplies the element, and the user must supply the ground state electron configuration. Specify the number of problems you wish to solve.

    Needed : Extended Basic and Memory Expansion
             avaliable only on diskette
                                                   $ 7.50

GAMES

Neutral Zone

You are in control of a new type of cruiser, and you have been sent out to destroy an enemy vessel at the outskirts of the Terran Federation. You have the advantage of speed, but the unknown ship carries some type of unkown powerful weapon. Good look Commander.

Extended Basic needed. Tape or diskette $14.00

Space Battle 2056 (from American Software)

This is an exciting new space game in which you command an Earth force and defend a helpless fleet of ships and fuel station, against an alien force bent on your destruction. It places you against the computer who controls the aliens. Random factors make each game a different contest.

Tape or Diskette $13.50

Meteor Shower   (from American Software)

Your spaceship is in darkest space when suddenly you are facing a strom of meteors. In this arcade type game you control both speed and direction of your spaceship. The longer you survive, the faster the meteors come at you. It contains both a regular and counterflow option. Top five scores are displayed after each game.

Extended Basic needed. Tape or diskette $9.50

SKI   (from American Software)

Ski is a game that can be played by one person or many. You ski down a slope one at a time and try to have the winning time. But watch out, go too fast for the skiing conditions and you may fall! The results of the run are displayed so they can be compared. The skiing conditions vary from excellent to icy. There are hundreds of courses to choose from.

Cassette or diskette $14.50

Laser Shield   (from American Software)

Laser Shield is a game in which you try to save 4 cities and protect your laser base from incoming missiles. It takes quick reflexes and presence of mind to destroy the missile with your laser. There are three waves of missiles, each on harder to destroy than the previous one. This is an Arcade style game with two skill levels.

Cassette or Diskette $14.50

GAMES FROM INSTANT SOFTWARE

Santa Paravia and Fiumaccio

The year is AD 1400, and you are the ruler of a tiny Italian city-state.
You are ambitious by nature and intend to build your little city-state
into a powerful kingdom.

So begins Santa Paravia and Fiumaccio, where you and your fellow players
compete as rulers of neighboring cities. You control the grain harvest,
feed your people, set tax rates, exercise justice, and invest in public
works.

Life was short back then, so you'll only have a limited amount of time
in which to build your kingdom. The lives of your serfs will depend
on your decisions. If they are wise, then your city-state will
grow, and you will acquire loftier titles. If your rule is incompetent,
your people will starve, and your city-state may be invaded by your
neighbors.

You can play the game alone, or up to six players can compete at one
time. Either way, you are sure to find the route to the throne a
challenging one.

Avaliable only on tape $9.50

Airmail Pilot

The Chicago Sun
July 18, 1922
-WANTED -

Airmail pilot for the Columbus to
Chicago run. Must be willing to fly
in every kind of weather.
Only the foolhardy need apply.

Let the Airmail Pilot package take you to the early days of aviation
history. Your plane is the Curtis JN4-D, affectionately known as the
Jenny. You must fly the mail from Columbus to Chicago.

The Jenny carries only 26 gallons of fuel. You'll have to stop along
the way. Bad weather may force you down. Electrical storms may turn
your aircraft into a mass of flaming wreckage, or ice may form on
your wings and plunge you to a certain death below. But the mail must
get through.

Experience the thrill of flying, when aircraft were mere fragile machines
of wood and fabric, with the Airmail Pilot package.

Avaliable only on tape $9.50

SQUARE - Try to solve this rubix cube problem. You only need to complete
one side, but the other sides are hidden.

Cassette or Diskette $10.00

Adventure Games from Fantasy Computing

Ringwraith's Lair

requires: Extended Basic
Memory Expansion
Disk Drive

A fantasy game in which the player tries to acquire treasure, win battles,
and most important, to survive. Text.

$22.50

Ringwraith's Lair II

requires: Extended Basic
Memory Expansion
Disk Drive
Ringwraith;s Lair diskette

A totally different scenario from the one above. Use the practice from
the game above to try to master this totally new one.

$11.50

COMMAND MODULES FROM TEXAS INSTRUMENTS

Video Chess	$60.00
Football	$28.00
Video Games	$28.00
The Attack	$37.00
Hunt the Wumpus	$23.00
Indoor Soccer	$28.00
A-MAZE-ING	$23.00
TI Trek Diskette	$14.00

TI Trek Diskette $14.00   Disk drive needed. Speech optional

WIZARD'S DOMINION, A Fantasy Adventure (from American Software)

An ominous glow beckons, inviting you to navigate the passages of crystal
in search of adventure, gold, and magical powers. Only the bravest dare
to enter the cavernous world of the WIZARD'S DOMINION. Spend your gold
wisely as your life depends upon your decision. Uses Graphics, 3-D
perspective, and many different levels, with hundreds of caves in each.

Extended Basic only. Diskette or Cassette $19.50

Speech Synthesizer	$130.00	
Telephone Coupler Modem	$200.00	
User's Reference Guide	$9.50	
TCA, The Source Subscription	$90.00	
Denali Data Atari-TI Joystick Adaptor	$20.00	
Le Shhtick Hand Held Joysticks	$32.00	requires Denali Data Adaptor
Epson MX70/80 Ribbons	$10.50	
RF Modulator	$45.00	
Diagnostic Command Module	$28.00	
Extended Basic Command Module	$90.00	
TI LOGO SOFTWARE	$280.00	
Terminal Emulator II	$45.00	
Computer Graphics Worksheets	$7.50/ 100 worksheets	
5¼" Diskettes.	$2.95 ea	
	$26.00/ box of 10	

Disk Doubler (allows you to use both sides of your diskettes- twice the storage)
$8.50

Software Exchange Membership $15.00   (see below)

Software Exchange

The Software Exchange is a program set up to offer low cost
quality programs to TI 99/4 and 99/4A users, while at the
same time encouraging authors to write more new programs.
Anyone can participate- just send in your origional program
to tape or diskette, with a list of any peripherals needed.
Each time this program is sold, the author will recieve a
$3.00 royalty. Programs will be sold for $4.00 to cover the
cost of postage and the cassette or diskette. Catalogs of
the programs submitted will be issued every two months and
sent to all members. Members pay a $15.00 yearly fee to cover
the cost of printing and postage of the catalogs.

You may also be interested in our regular line of software and
peripherals. Catalogs are $1.00 (refundable on any order, free
to members of the software exchange).

Data Systems
2214 W. Iowa St.
Chicago IL, 60622

Life Expectancy

Answer yes or no to a number of questions asked by the computer, and find out your life expentancy. Avaliable on diskette or tape, but Extended Basic needed.

$10.00

Discrete Distributions Package

This program computes the binomial and poisson distributions of a function. Enter the first and last values of x, and the increment. Also enter the number of independent trials and the probability of success for a single trial. For more information on this program, please send $1.00 which will be refundable toward the later purchase of this program. (The poisson distribution is a special case of the binomial distribution, where the probability of a single trial approaches zero)

Avaliable only in Extended Basic on diskette $10.00

ORDERING INFORMATION --

Please send order with remittance to:

        Data Systems
        2214 W. Iowa
        Chicago IL 60622

Please enclose a minimum of $1.00 to cover postage. If you do not enclose enough for postage, we will bill you (you can send it with your next order)- if you enclose an excess of postage, we will send you a refund check. There is a minimum order of $15.00- please add a $1.00 handling charge to any order under $15.00. We thank you for your business.