mini'app'les

Program
Library

January 1986

Mini'app'les
DOMs
and
IAC
Index

Mini'app'les Disk Of the Month (DOM) & International Apple Core (IAC) Program Index

Eamon Adventure Series

Disk#	Title
E1	Master & Beginners Cave (E1 required for all adventures)
E2	Lair of the Minotaur
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The End

5 1/4"

Disks of the Month

DOM #1

November 1980
by Ken Slingsby
THE DOM HAS STARTED!

Ken Slingsby has put together our first disk of the month, which has been reproduced by Chuck Thiesfeld for your enjoyment. A limited quantity will be available for purchase.

The DOM contains several programs from the International Apple Core, original locally written programs, and one or two from magazine articles.

The IAC volume #3 is included in its entirety. We will continue using the IAC's disc as long as space permits. The volume #3 from the IAC contains several hi-res games from the Baked Apple User Group of Japan. These were passed on as is, however very little documentation is needed to get the games running.

They are not board games although several are captivating. It is interesting to read the translation of the instructions and notes into English. Several of the games use both paddles and may be easier to coordinate if you have a joystick.

I found the X and Y axis were rotated (either my joystick is wired wrong or their joystick has the axis interchanged.

The DOM has three programs from IAC #2. This volume has been circulated before, however we intend to make use of these programs in all future DOMs.

This will serve as the "official" distribution of the programs. The programs were written by members of the Northwest Suburban Apple User Group of Chicago and a group called ABACUS. MENU displays the catalog in its normal format, then exchanges the length for a sequential letter. By one or two keystrokes the user can run the program, lock it, unlock it, or delete the file.

CATALOG MANAGEMENT - EDIT allows the user to create or edit a text file containing descriptions of the files saved on the disk. The text files, so created, will always be named PROG.LIST. Every attempt will be made to place the PROG.LIST on each DOM. CATALOG MANAGEMENT allows the user the option of running BASIC or applicable machine language programs, or viewing the documentation for each. NOTE: The ... MANAGEMENT programs will not be repeated after the first DOM VOLUME.

APPLE PIE is a program copied from the Aug. 1980 Creative Computing. This program allows the graphical presentation of data in a pie chart. The comments should allow the user to modify the program to his own use. The text file PIE demonstrates one relatively painless method of distributing modifications to a program. In this case the modification is a new set of data for APPLE PIE.

COLOR DICE is a program that is now stand alone but could be integrated into a game possibly, to simulate the throw of dice.

BERTHA is a demonstration of ballistics. The game presentation claims to be aiming projectiles at London. The user is prompted to enter the angle and amount of charge for a randomly chosen distance to hit the target.

CALC PRIME FACTORS will calculate the prime factors of any integer, expressing the resultant as a series of positive integers raised to powers. If the input was negative the sign is indicated above the first resultant.

DOM #2

February 1981
by Ken Slingsby

The DOM #2 concentrates on utilities with a few general use programs thrown in for good measure.

A WORD OF CAUTION!!

This disk contains more sectors of material than the normal disk. Some copy programs may not copy it correctly. Two programs, B.CATALOG and DISK SPACE are wholly or partly contained in "forbidden" sectors. Please BRUN or RUN these after copying the disk to be sure they copied correctly. It may be necessary to copy them to another disk using more conventional methods. This was done as there was a lot of fine material available. It was felt that this would give you more for your money.

Several programs were submitted by a graduate student in the U of M Business School. These are Managerial Economics and Accounting related utilities demonstrating several concepts of practical use in a business environment. They may not all be of direct use to each of us but they do include some very interesting high resolution graphics, especially plotting with annotation on the graph. The programs are given to the club as demonstrations and may not be valid in all cases.

SYMBOLIC MATH
This program is included in both Integer and Applesoft versions and is a demonstration of polynomial expansion.

SINGLE DRIVE COPY
This program allows the user to selectively copy files from one disk to another using a single drive. With a 48K machine, approximately 110 sectors of Integer, Applesoft, Binary or Text may be loaded before disk swapping is necessary. The program is well written and self prompting. Most error situations are handled without loss of data.

TAX.79

Just in time for those of us who need all the help we can get in filling out that Form 1040 is this program. It will calculate tax due after you have entered income, dividends, interest, deductions, number of dependents, etc. The program will also calculate Schedule G if you want to try Income Averaging. The program uses the binary routine READAT via the & command to read data statements. To change the tax tables for new years, modify lines 1570-1670 observing the cautions contained in the REMs.

READAT
This machine program from the Denver Apple Seed Group is called via the & command from TAX.79. The utility will read data statements into the arrays provided that ALL the required data is in one statement. This is pointed out in the TAX.79 program in REMs.

FILE CABINET.REV4.1
This is a revision of the Apple Data Base Management program done by the Dallas Apple Corps. There are many improvements made to the program such as incorporation of Gary Foot's sort algorithm, inclusion of either 'OR' or 'AND' data in reports and prettied up displays. One nice feature of the reports is that if the selected report is too large for the screen, the printer can be automatically selected. Many REMs have been added to make understanding of the program much easier. We have made some minor revisions to the received program. Lines 2000-2075 control the printer.

FID
This is the Apple utility written for DOS 3.3. We have found that it can be used for DOS 3.2 as well. This utility allows you to selectively copy, lock, unlock files, check space remaining on the disk. To selectively copy multiple files the user must enter an '=' for the file name when the program prompts for it. This will cause the program to list each of the files in the current catalog in turn asking if the user wants to copy, lock, unlock (or whatever) the file. Otherwise, one file at a time is worked upon. If the user has a single drive system, ignore the references to two drives, however a disk swap is required for each file copied. For those of us who do not have DOS 3.3 the Single Drive Copy program above may be just as useful.

DEMUFFIN
Again for those with DOS 3.3 this utility will let you convert back to DOS 3.2. The utility was written by the folks at Call-Apple with corrections made by others to make it run. The screen prompts should make the program self explanatory.

B.CATALOG
This routine will list the remaining disk space at the top of a catalog listing. BRUN the program to get it going. In my experience with DOS 3.2, it is necessary to RESET after this routine to gain use of the computer again.

The following programs were written by a U of M professor in the Business School. Each of them requires the use of the HGR PRINT routine to place text material on the graphs. Not all the donated programs could be placed on this DOM, so the remainder will be first in line for the next.

HGR PRINT
This binary routine places text on the hi-res screen according to the position of the invisible cursor positioned with VTAB and HTAB. Thus, graphs can have axes, titles and other helpful text on them. Examine the several plotting programs described below for further information.

PLOT SUB
This routine will plot a curve fitted to data points entered by the user. An option allows the points to be plotted without the connecting curve.

SCALE PLOT III
This routine plots operator entered functions of T, each having a different color, scaling the axis in needed.

SCALE PLOT IV
This routine will plot operator entered relations with each curve optionally colored differently.

SCALE PLOT V
This routine will plot a function of two variables such as $Z(X,Y) = 3X + 2Y$. One variable is held constant as the other is varied to produce a graph. This can be repeated to produce a family of curves.

SHORT RUN PROFITS
This routine evaluates short run cost, balancing the price and quantity to find the maximum profit. The routine will do a Mad Hen Crosshatch of the selected area where the horizontal lines indicate cost and the vertical lines indicate revenue, giving the resultant profit.

DEMAND SCHEDULE
This routine evaluates price versus demand in a production environment. It is assumed that as the price rises the demand will decrease. The user enters values for price and demand and the program will plot the resultant curve.

ELASTICITY CHECK
This routine plots a linear demand function verses elasticity where elasticity is defined to be the percent change in demand as price increases. I hope the above descriptions of the business programs are reasonably accurate. They are from a graduate level course, somewhat beyond my understanding. My apologies if I have misinterpreted or mislead you, the users.

DOM #3

February 1981
by Ken Slingsby

The Disk Of the Month for February contains many of the remainder of the business programs contributed by Mrs White. These are the programs that would not fit on the DOM for last month. In addition, there are several programs from the IAC Vol #4. These include several hi-res utility programs and some more excellent games from the Baked Apple User Group of Japan. It is possible you may learn something from just running these programs. We also have included a text processor program donated by the Dallas Apple Corps.

HGR PRINT
The routine HGR PRINT is repeated in this DOM because so many of the curve fit programs require it.

MARGINAL REVENUE
This program plots a linear revenue curve of the form $Y = MX + B$.

COST SCHEDULE
This program plots fixed and variable costs.

CUBIC COST FUNCTION
Plots cost of making an object as a third degree polynomial.

COPY HGR PRINT
This program was written to copy the HGR PRINT routine used by many of the plotting programs. With a few changes it could be used to copy other binary programs one at a time.

POWER ESTIMATOR
This program is an experiment in linear programming. The author cautions that it is valid for a small number of points.

MONOPOLY PROFITS
This program calculates the profits to be expected in a monopoly environment.

MENU
This program is included again to allow easy selection of catalog items. The CATALOG MANAGEMENT and PROG.LIST are missing because the MENU file and EDIT/CREATE FILES text processor can be used to get the same results.

SHOOTING ALIEN
Another of the great graphic programs from the Baked Apple Group in Japan via IAC #4. This program requires the use of the paddle to shoot down the endless stream of oncoming aliens. BRUN the program to get it going. One nice feature of their programs is that you get back to BASIC when the program finishes.

CHECK BOOK BALANCER
For those who have struggled with the bank statement, trying to figure where THEY went wrong, this program may help. It has plenty of prompts to help in the data entry and will print the results if wanted. Modify line 385 for the printer to be used.

GAMBLER'S RUIN
This program points out the principle that keeps Las Vegas going - given enough chances, the gambler loses in the end. From IAC #4.

BARN
Another hi-res picture drawing program. This one draws a boxy building - a barn - in 3D. It then allows the user to rotate it, change the view angle, and size. From IAC #4.

LISSAJOUX
This program will plot a Lissajoux figure, the composition of two harmonic motions at right angles. This is demonstrated by connecting sine wave inputs to both the horizontal and vertical axis inputs of an oscilloscope. This program converts the Apple into a slow speed o'scope.

EDIT/CREATE FILES
LC ADAPTER
Here is a text processor. This program, written by Bob Matzinger of the Dallas Apple Corps, will allow you to type letters and reports. The material may be saved to disk in a text file. Through careful writing, the program proceeds smoothly and typing is easy. Instruction on how to use it are contained in the file INSTRUCTIONS. You may need to modify the print routine beginning on line 7000. If you want to watch the text as it loads from the disk, remove the REM from line 6150. The routine LC ADAPTER is used to convert a vanilla Apple][or][+'s upper case only display to mixed upper/lower case for a printer. On the screen, upper case is displayed as inverse and lower case is displayed as normal characters. The file PROG.LIST, which normally is included with the DOM, was omitted from this disk. In its place is DOM #3. This file can be read and/or printed by EDIT/CREATE FILES. As an added benefit, if you haven't already tried it with this program, EDIT/CREATE FILES makes a dandy means of creating EXEC files.

RADIOACTIVE
RADIO
These two programs will graphically demonstrate the meaning of half life as it pertains to radioactive elements. The BASIC program will load RADIO, a hi-res picture into the HGR screen and by its display show the concepts. This program was donated thru IAC #4.

MAKE RATIO
This program can be used to convert decimal fractions to rational form.

HONEYCOMBS AND HERRINGBONES
This program creates patterns on the hi-res screen. It is from the Dallas Apple Corps.

STRIP VISICALC READ FILE
If you have Visicalc, you may need this to 'reset' your files. This program will remove all numeric entries from a Visicalc data file, leaving the formats and formulas. It was donated by the Dallas Apple Corps. The binary READ FILE is used by this program.

DOM #4
May 1981
by Ken Slingsby

The Disk Of the Month number 4 contains the remainder of the programs from IAC #4. Several original programs and programs from magazines donated by local members, and a repeat from a previous DOM back by popular demand. A new feature is being introduced this month. With the help of Acme Computer the DOS on this DOM and those that follow is bootable (? !) on either 3.2 or 3.3 systems. Try it and see!

PULSAR

This IAC demo is a series of machine language routines that produce high speed pulsating displays on the screen. An Integer program explains how to run the routines.

HIRES-TO-LORES DEMO
This demo is from APNOTES. It converts a random hires screen to a lores equivalent.

INPUT DEMO BY TWE
This demo incorporates routines from fall 1980 issues of Mini'App'Les and especially John Risken. Input does not create the "EXTRA IGNORED" problem. The demo is designed to have the subroutines stripped out for use in program development.

INT CATALOG
A hello program which enables running a program (etc.) with just a keypress or two.

JANE'S EGG TIMER
A large digital count-down clock for timing events. REMs in the program explain how to customize the clock for your computer to increase its accuracy.

POLAR PLOTS
An educational graphic program that uses the "polar" coordinate method for the construction of geometric shapes.

SPIRAL DEMO
An IAC program that plots spirals in polar coordinates.

SURFACE
An IAC Demo which plots a 3-D mathematical surface.

ALPHABETIZE
A drill on the organizing of words alphabetically. For kids in grade 2 and up. Uses "read-data" word entry. Response is by typing in the choice for correct list position.

ASTEROYDER
This game is similar to one found on the last DOM. You control a ship firing at a multitude of targets coming at you. This program requires the paddles and some skill to achieve a high score. BRUN the program. From the Japan Baked Apple User Group of Japan.

LIT'L RED BUG
This game originally appeared in Creative Computing Magazine. It is a lores paddle game for one player. Try to go as fast as you can and keep your car on the road as it snakes ahead of you. Many of you will recognize the original author's name as one of the premire writers of Elppa software.

MOONIE
A great hires game from a recent "SOFTSIDE" magazine (fall 1980). This is better than the run-of-the-mill Lunar Lander. The length of the program and stored data clobbers some of the program. Therefore SAVE it BEFORE you run it.

EQUI-PROBABLE
A demonstration which plots the equiprobable distribution of a group of random integers. From the IAC.

BASE CONVERTER
A program to convert numbers from integer to hexidecimal to binary. It also has the capability to add or subtract, which becomes useful when calculating addresses in the computer.

CATALOG MANAGEMENT
A repeat of a previous DOM. This program enables the running (etc.) of programs from the CATALOG with just a keypress or two. It also allows a short review of info stored about the programs on the disk.

DAY FINDER
A utility program that finds the day of the week for any date entered (since about 1500 AD).

DISK ACCESS UTILITY
This utility allows display or printing of the disk, sector by sector. The program includes some self documentation.

DISPLAY MEMORY IN HEX & ASCII
This routine will allow you to examine the RAM, displaying the addresses in both Hexidecimal and ASCII. The program will fill one screen then stop to allow close examination.

NUMBER FORMATTER
A routine which can be EXECed into a calling program to provide a given number of digits after the decimal point with rounding of the last digit. A demo is included which explains the workings of the routine. The routine occupies lines 59000 - 59080.

NUMERICAL KEYPAD
A utility program which aids in numerical input such as into a data base. BRUN the program; then when the numerical keypad is needed, type a control S. This turns the letters U I O J K L into numbers. The top row of keys provides the 7 8 & 9 with the space providing the zero. This may be a little hard to visualize, but it works. Another control S will exit the routine.

PAGE 2 UTILITY
This utility allows the use of the lores page 2 of the Apple.

Comments on the DOM:

Documentation for the DOM was part of the job for the Program Editor, me, as I saw it when I volunteered for the position. Up to now, with a few exceptions, this has been the case. Thanks to the assistance of two of the people who donated programs to this DOM, it was much easier to assemble this month's disk. Both people provided programs with liberal REM's explaining what was going on. They also provided the file PROG.LIST with explanations of the programs on the disk. We do not necessarily require either of these items for submitting programs for the DOM but I think everyone can appreciate the help their inclusion provides. The program CATALOG MANAGEMENT was not available before now and explains why PROG.LIST was not included before. In most cases, a person can follow the flow of a program without all the REMs. In some cases I added comments to programs where I could figure out what was going on. In one or two instances, I have worried that my interpretation was not the same as the programmer's.

Put yourself in my shoes (if they fit). Would you feel right guessing at the intent of a program portion then displaying that guess to the users of varying experience levels?

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DOM #5

July 1981
by Ken Slingsby

The Disk Of the Month #5 contains the remainder of the programs from the International Apple Core Disk #5, and several programs donated by our members and from some other user groups. The programs are not in any particular order. Their order does follow this list and the list contained on the disk.

You will note that we have included a program from Creative Computing. Their software is not copyrighted unless they specifically indicate otherwise. However, MICRO and NIBBLE magazines copyright all their software except for short subroutines such as NIBBLE's input routine used by COMPARE.

Highlighting the DOM is a "limited" word processor. For those not familiar with the term, a word processor is a fancy text editor. That is, it (the word processor) allows the user to enter and print text (just like a text editor). In addition, a word processor allows the user to correct mistakes on a word by word and even a letter by letter basis. In contrast, most text editors force the user to retype an entire line to correct any mistake - no matter how small. The word processor will also allow printer format controls such as setting margins. This processor allows these functions. I called it "limited" because a good commercial word processor has many other features needed to more efficiently handle text.

Programs on DOM #5 are:

FOG INDEX
The FOG INDEX analyzes your text to determine the skill level (the approximate school grade) required to comprehend the material. The program asks that a 100 word sample of the text be entered. A carriage return will terminate entry of text. At least one sentence must be entered. More will give a better sample. From Creative Computing April 1981.

DATE SUB-ROUTINE
This routine can be added to your programs to prompt for and check date A sample calling routine has been added to demonstrate the usefulness of the routine. By a local member.

INT SYMREF
INT LINE X-REF
These programs will create two valuable cross references for Integer BASIC programs. The first displays the line numbers containing reference to each of the variables in the program. The second creates a cross reference of all GOTO's and GOSUB's, and jumps caused by IF...THEN conditionals. To use them: RUN the Integer program. BLOAD the desired cross reference program. In the case of the SYMREF LOMEM:2560

CALL 2048. If printed output is desired, call the printer before the CALL. From the IAC.

GRANDAPPLE
This program turns your Apple into a HIRES display of a Grandfather clock complete with chimes, tick and alarm. From the IAC.

HIGHER HIGH-RES
A demonstration of a method of getting a HIRES display of 560 X 192 dots on a black and white monitor. The difference in smoothness of a diagonal line is remarkable. From the IAC.

MEMORY INTERPRETER
This program will display the contents of memory in decimal, hexidecimal, and ASCII formats. From the IAC.

ADDRESS2
Displays the sum or difference of decimal, hexidecimal, or binary numbers. This could be a big help in calculating memory addresses. From the IAC.

RAM TEST 48K
Repeatedly tests the 48k of motherboard RAM memory. Displays the failing locations of any bad chips found. From the IAC.

HIRES TV PATTERN GENERATOR
This program displays the classic patterns used to converge and adjust a color TV set. The patterns will tell you if some adjustment is needed. CAUTION: If you do not understand the procedure to adjust your set, let someone else do it. From the IAC.

TELWORDS
BRUN this program to display all the possible combinations of words (???? !) that can be made using the letter replacements for the digits of a telephone number. From the IAC.

GREAT CIRCLE
A program for finding the great circle distances from a given location, expressed in latitude and longitude. The distances to many major cities of the world may be found. This would be helpful to amature radio operators or others studying the globe. From the IAC.

POKES
Creates a text file that can be EXEC'ed into a BASIC program. The text file will contain pokes of user entered addresses and line numbers. Thus the user is relieved of the lack of fun in entering machine language sections into BASIC prorams. From the IAC.

ASTRONOMY-EXPOSURES
A program to calculate the settings to photograph the celestial bodies. The f-stop and time of exposure are calculated for several subjects. From the IAC.

WORD SEARCH PUZZLE MAKER
This program makes those word search puzzles that appear in several of the tabloids. Lines 5000 and 7000 can be adjusted to adapt the printed size. From the Dallas Apple Gram.

VIDIZZY

One of those whatzit programs. Running the program will clear the screen, display a few funny characters and a single line of a program. If you trace over the line and press return, a HIRES pattern emerges. Try to figure out what is happening.

DAVE'S PEEKS
This routine provides a method of allowing the user the opportunity to continue or abort the program to which it is appended. It is not a program in the strictest sense of the word as it cannot be run. The REMs serve to instruct. From the NSAUG (Chicago) newsletter.

TITLE PAGE PROGRAM
This program creates an attention getting title page for your program.

CASSETTE LISTENER
Allows you to hear the cassette input. This would be an aid in setting the volume control of the player.

PUMP DOS PATCHES
These patches provide fantastic improvements for DOS 3.2 and DOS 3.3. See our January 1981 newsletter for further details. From the NSAUG.

FP.FREE & CAT COMBINED
As the name implies, this program will display the number of free sectors remaining on a disk whenever the CATALOG command is given.

COPYCAPPLE
Another version of Apple Simon. From the Michigan User newsletter.

EDIT 3/24/81
AMPER
SUBLO
JUSTB9300SLOT1.EPSON
LIST & PRINT MULTIPLE FILES
These programs together make up a simple word processor. To enter text, run EDIT. This will load the appropiate binary files and prompt for the source of the input. To get started, use the keyboard. You will enter text in ten "line" segments, where a line consists of less than 255 characters. A line is terminated by carriage return. At 240 characters, the bell will sound. When 10 lines have been entered, you may edit by entering the line number, save to the text buffer by entering a "-", or print the text by entering a "+". If you save the text you can continue entering text until nearly 1900 characters are in the buffer. At this point the text can be saved to disk. Previously created files may be re-edited.

The user can print multiple files with the last program, which is an extension of the print capability in EDIT. It will prompt for the line length, number of files to print, and the file names. I think you will find EDIT a useful program. It was written by Dan Buchler.

FILE NAME EXPANDER
This program will expand the catalog capabilities to handle up to 181 named files. CAUTION: Run this program immediately after INIT. Much information will be clobbered otherwise.

LEON'S BELL

This program creates clicks for each keyboard stroke. From the NSAUG.

CLASSIC BUBBLE SORT
SHELL SORT
HIBBARD SORT
QUICK SORT
QUICKER SORT
HART SORT
SINGLETON SORT
These sort algorithms are compared for their sorting speed and memory efficiency. The comparisons and ratings were done by Jerry Rivers of the Michigan Apple.

IMPROVED COMPARE
This utility was originally written by Chuck Boody and was published in Call-Apple and the Apple Orchard. It seems we all get multiple revisions of a program saved on disks. This program will list or print the differences between the two versions of a program. This version, by Tom Edwards, executes much faster.

DOM #6
September 1981
by Ken Slingsby

The sixth Disk Of the Month contains several programs written by local members and a few programs from other user groups' newsletters which were typed in by our members. Three of the programs created documentation which formed the basis of separate newsletter articles. There is a mix of games, demos, utilities, and general interest programs.

HIRES SCREEN INVERTER
This program takes a picture on hires page 1, inverts it, and draws it on page 2. Just in case your TV monitor gets tipped over, use this to put your HIRES back in shape. The program was written by Steve Johnson.

BASEBALL
For most of the summer it looked as though the only way to see a baseball game was to play it yourself. This game gets the Apple involved. From an article in the Dec. 1980 Softside Magazine. The article contains a list of variables and their function as well as a good description. Entered by Steve Johnson.

CONNECT-A-DOT
A line drawing game entered from a Softside article by Steve Johnson.

MINNESOTA MAP
This program draws a map of the state showing major bodies of water and rivers. By Steve Johnson.

MINNESOTA MAP/RADAR

The same map as the previous program with a radar sweep centered on the Twin Cities. Written by Steve Johnson. Where are the storm clouds on your radar map?

PAYMENT CALCULATOR
A program for calculating the payments for a loan at varying interest rates and several periods of time. The resulting chart can be displayed or printed and should be helpful in budget planning. By Alan Peterman.

BANNE
CATALOG MANAGEMENT
A program for displaying the descriptions of the programs on this disk. It allows running them with a single keystroke. By the NSAUG of Chicago.

HIRES PATTERN PLOT
A HIRES pattern demonstration that probably is a mathematical game. From the River City Apple Corps with an addition by Chuck Boody.

ASSEMBLER
An assembler written in Applesoft. This program was based on a similar program written for a Hewlett Packard computer. By Mike Gooding.

PRODUCE BINARY
This program takes the output file of the Assembler and produces a binary output file. By Mike Gooding.

PRINT
A program to print a sequential text file on a printer. It was included with the Assembler, but has uses wherever a text file needs to be listed. By Mike Gooding.

DEMO.ASM
A sample file to be assembled by the above Assembler. Examine this file to get an idea of the syntax required. By Mike Gooding.

LITTLE WINDOW
A fancy title page program showing use of the Apple's window commands. The REMs in the program explain the action. By R. M. Thompson (Dallas Apple Corps (?)).

MONEY
A program to demonstrate a method of printing dollar amounts (or any two digit decimal amounts) in a justified manner. By Mike Gooding.

DOLLAR USE EXAMPLE
DOLLAR BINARY
An example of printing dollar amounts justified using a binary routine to speed up the justification. The result always has two digits after the decimal point. By Mike Gooding.

TEXT WRITER B1
A text processor for creating printed documentation. This program was based on an article in Micro Magazine. Mr. Hamelink went a few steps further by adding many routines to make the operation smoother and much easier. By William Hamelink.

STEVE'S SUPERSHAPER
STEVE'S SUPERSHAPER REV 02

A program to create HIRES shape tables. This one allows the user to create the shapes with the game paddles. The shapes can be edited before or after converting the shape into a shape table. The program REV 02 is identical to the first except most of the REMs have been removed to allow storage of more tables. By Steve Sullivan.

JUGGLE BALL
A demonstration of the Supershaper. The file BALL contains the shape table for the program. By Steve Sullivan.

REM LISTER
This program will list (or optionally print) just those lines containing REMarks in an Applesoft program. This may prove helpful in finding certain areas of a program without listing the entire program. To use: RUN the program. This will create a text file OUTLINE. Load the target program. EXEC OUTLINE. RUN 63000. By N. Hurzberg, Call-Apple Nov-Dec 1980.

HEX/DEC CONVERTER
A program to convert numbers from one base to another. By Val Golding, Call-Apple Nov-Dec 1980.

IDS PRINT FONT CHANGE
A routine to demonstrate a method of sending commands to an IDS printer. This is necessary as the IDS uses the control 'D' to delineate printer commands with the resulting confusion if Apple's DOS is active. By Jerry Rivers, Michigan Apple Computer Club.

PROPER EXTENDED STORAGE 3.3
This routine will free an additional nine sectors for file or program storage on a 3.3 formatted disk. The space comes from unused sectors in track two. By Michigan Apple Computer Club.

MEM DISPLAY
BRUN this file to get a display of the contents of RAM memory. The dump starts at $800 (2048) and continues into the ROM area. To control the listing, use the space bar. Each time the routine is stopped, the current address is displayed.

FANCY FORMATING
A routine to demonstrate methods of obtaining various output formats (integer, floating single precision, and double precision). By Poke-Apple Mar 1980.

DOM #7
October 1981
by Ken Slingsby

The Disk of the Month for October contains all the programs from IAC #7, a few programs from other user group newsletters, and some locally written programs.

PROG.EXAM

This program will list your Applesoft program giving the RAM address of each of the program lines. This would facilitate modifying the program to contain illegal statements, (or to hide machine language perhaps?) To use, RUN the program. This will create a text image of itself. LOAD your Applesoft program; EXEC EXAMINE and RUN 63982. Your program must not contain line numbers greater than 63982. Typed in by Ron Androff.

GRAPHIC DUMP (EPSON)

If you have the Epson MX-80 printer with the Graftrax 80 option, this program will dump a hires screen to paper. To use it, POKE 9,x; BRUN GRAPHIC DUMP; where x=75 ($4B) for 4.7 inch wide picture, or x=76 ($4C) for 2.3 inch wide picture. The program will work with most eight-bit parallel interfaces for the Epson.

SKYWRITER
SKYWRITER (INSTRUCTIONS)
SKYWRITER (ONELINER S)
SKYWRITER (SNOOPY)

These programs include another method of creating shape tables (see our DOM #6). The two oneliner programs demonstrate a fancy picture drawing algorithm. The Snoopy program is very cute - it can draw Snoopy upside down or sideways. By Paul Stadfeld of the Northern Illinois Apple Users Group (NIAUG). From IAC #7.

INSULTS

This program is a spin off from the HAIKU poetry. Insults hurls some of the most gruesome jabs under the sun. Please do not use this program to describe my descriptions of your DOM contribution! By Bruce Christopher of the NIAUG. From IAC #7.

ERROR HANDLER

This is a program debugging tool used to detect errors that happen while the program is running. It will list the line number where the error occured and the reason for the error. By Rob Stewart of the NIAUG. From IAC #7.

APPLESOFT LINE WRITER

A programming aid which writes lines into a program for commonly used set-up routines such as DOS strings. Running this program will set up a text file which you EXEC into your target program. The liberal comments in the program further explain its operation. By Jim Pfeiffer of the NIAUG. From IAC #7.

GENERAL LEDGER
G/L DATA
PRINT G/L

These three files set up a General Ledger for a small business allowing updating, calculation, and printing of the data. The PRINT routine is called by the main routine. By Fred Amundesen of the NIAUG. From IAC #7.

DPRING

This program allows the dumping of Visicalc files. By David Sherman of the NIAUG. From IAC #7.

TIMER ROUTINE

Here is a routine you can add to your program to time the interval required to respond to your prompt. The timing appears to be very close to actual time as the routine is written. Typed by Ron Androff.

LORES GRAPHICS EXAMPLES
HIRES GRAPHICS EXAMPLES
HIRES GRAPHIC DEMO
IMPROVED HIRES CURSOR PROG

These programs will give some insight into the APPLE II graphics capabilities perhaps enough to give you the 'kick' to add graphics to the program you are working on for the next DOM.

DOM HEADER

Someone asked me how the DOM headers are created. This program makes about half the work easy. It creates seven text files whose file names make up the header. The remaining work, (for me as I have not automated it yet) consists of using a disk utility to remove the track and sector list and file storage for each file. Without this step 14 sectors are made useless with unnessary (in this case) data. This program is based on a very good article in CALL-APPLE July/August 1981 by Clifton Howard, M.D. By Ken Slingsby (for what it's worth).

DOCUMENT INTEGER PROGRAMS
SYMBOL TABLE XREF
LINE # XREF

These programs will aid in the good documentation of your Integer BASIC programs to help in understanding them in the future. To use, LOAD your Integer program and EXEC DOCUMENT INTEGER PROGRAMS. If you want printed output initialize the printer before the EXEC. Submitted by Ken Slingsby

SNOOPY FOOTBALL POSTER

Just in time for the season, this poster will grace the walls of your room (or wherever you put it). Submitted by Ken Slingsby.

HGR PRINT 48K
HGR PRINT 48K INSTRUCTIONS
COPY HGR PRINT 48K

Some time ago there was a program on the DOM which produced pie charts annotated with the APPLE's HGR PRINT. (Originally distributed by Apple as part of one of their 'Contributed Software Volumes'). HGR PRINT was written to be used on 32K or 48K systems therefore quite a bit of space is wasted on the (now) usual 48K machines. Wayne has moved the routine and provided a means to easily copy it from disk to disk. By Wayne Saylo.

MAKE LINE CAPTURE

This program will create an EXEC file of part of your program. This could be used with the COMPARE program which was in a recent DOM. By David Nordvall.

GAME NAME

This routine can be added to your game program to keep track of the highest score for each run of the game. The interesting feature of this routine is that it is self modifing and saves the modified image to disk. By David Norvall.

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DOM #8
November 1981
by Ken Slingsby

This DOM is largely made up of programs from the IAC #8, provided by the *Sidney Group of Australia*. They included a MENU program which I left intact to denote which programs are a part of the IAC disk. Your comments are welcome concerning this menu program as it differs considerably from the Catalog Management program we have been using with the DOMs.

The programs on DOM #8 are:

CAT INIT
CAT MENU
These programs make up the Menu program supplied by the Sydney Group of Australia. Cat Init is used to make the menu contents of Cat.

HGR DEMO!
This program contains a series of hi-res demos. By the Sydney Group. From the IAC.

BIORHYTHM
This is THE biorhythm program. There are many features not usually found in the usual bio program. The program will print the biorhythm charts on an eighty column printer. From the IAC.

TARGET SHOOT
This game's object is to "shoot" targets by placing blocks in the path of the bullet, causing it to glance off in another direction. The best score is obtained by using the least number of blocks. From the IAC.

LUCY
The thinking program, has an answer for almost anything. It also has a seemingly endless number of questions.

THE TALKING CALCULATOR
A four function calculator is simulated. It uses the APPLE's speaker to vocalize the key presses. The voice is not as good as those synthesized at the September meeting, but the price is much better. From the IAC.

APPLESOFT SHAPE MAKER
It seems that we are getting a new variation of shape makers with each DOM. This version creates shapes from text displays, using a 1 or a 0 to plot points. A little hard to visualize, but the method does work. From the IAC.

MASTERMIND
The game of MASTERMIND with a new twist. From the IAC.

BACH
A musical lo-res demo which uses the APPLE's speaker. From the IAC.

GERMAN
This program was written to aid the author in learning the German language. It operates as a German/English dictionary, giving you the words of one language, and prompting for the equivalent words or phrases in the other language. The program contains a mixing algorithm to ensure that the words are not given in the same order each time the program is run; thus aiding in the learning process. The comments in the program describe how to change the words or add to the vocabulary.

The program could be used for other computer aided learing by substituting math tables for the words, for instance. By David Lau.

LIGHT SABER
Here is the noise of the light sabers used in Starwars. Just right for your games. Contributed by Chuck Boody.

SPECIAL REM
This is not a program but is a description of how to obtain characters not available on the APPLE's keyboard for REM statements. Typed in by Ron Androff.

TAX PLANNING
This may be a misleading title as this program provides quick calculations of the worth of tax sheltered investments. It can be of valuable assistance for such planning. Contributed by Chuck Boody.

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DOM #9

December 1981
by Ken Slingsby

This Disk Of the Month features the IAC disk number 9, which is made of contributions from the San Francisco Apple Corps. Our DOM also contains some locally contributed programs. Members who have been in the group a while will recognize a few of the programs as several were in the User Bank some time ago.

HELLO1
This was the hello program from the IAC disk. The program displays the SFAC Logo and will catalog the disk. From the IAC.

CALCULATOR
Preforms the four calculator functions plus can find area, square roots, and exponentials. A good demo for elementary students. From the IAC.

REACTANCE CALCULATIONS
Will compute either the reactance, frequency of resonance, or capacitance/inductance of a series circuit. From the IAC.

TRANSISTOR PARAMETERS
Will calculate the Beta and Gain of a 'standard' transister amplifier circuit in the common emitter connection. From the IAC.

SIN PLOT
Will plot a sin function. From the IAC.

METRICS AREA
METRICS LENGTH
METRICS VOLUME
METRICS KITCHEN
METRICS TEMPERATURE WEIGHT
These programs will convert a given unit in the English system to the metric system or vice-versa. From the IAC.

PERMUTATIONS - COMBINATIONS
This program will compute the permutations and combinations of a given event series. For example it will answer the question: "how many permutations and combinations of sets of the alphabet are there taking 5 letters at a time?" Hint . . . The numbers are rather large. From the IAC.

BINOMIAL DISTRIBUTION
This program will calculate the probability of getting 5 heads when flipping a coin 10 times, for example. From the IAC.

EXTERIOR BALLISTICS
Calculates the range of a projectile shot at an entered angle and with an entered muzzle velocity. From the IAC.

HARMONIC ANALYSIS
Plots a curve and harmonics for entered data. The curve will automatically scale itself for the data to be plotted. From the IAC.

QUADRATIC SURFACE
Give point values at regular intervals over a quadratic surface. From the IAC.

HEX CONVERSIONS
Converts numbers to hexidecimal or performs addition, subtraction, and shows the values in binary form. From the IAC.

NOTCH FILTER
Calculates the elements needed to assemble a notch filter. From the IAC.

BIORHYTHM PRINTER
This is not a repeat from the last DOM, but a different version. This version is based on the Integer BASIC program that used to be in the User Bank. John has extensively modified it to print the biorhythm on a printer for any time period desired. Contributed by John Schoeppner.

DIAL ABBS
This program with a Hayes Micromodem will dial and connect your APPLE to one of the local Bulletin Boards. It is based on a demo program in the Hayes instruction booklet with several modifications. Contributed by John Schoeppner.

THE PROBLEM WITH RENUMBER
RENUMBER
These programs describe the problem and include the solution. Contributed by Steven Sullivan.

MOVE SCREEN UTILITY
MOVE SCREEN BINARY
This program describes a method of creating one of the most eye-catching title pages I've seen. The explanatory notes should make this utility relatively easy to incorporate into your programs. By Steven Sullivan.

SINGLE DRIVE MUFFIN
This program will muffin an entire disk from DOS 3.2 to 3.3 in five passes. It operates in a similar fashion to the single drive copy programs that exist. The program was written by Dana Schwarts of the Washington Apple Pi. It was printed and described in the Summer 1981 APPLE ORCHARD. Contributed by Ken Slingsby.

PRIME FACTORS OF INTEGERS
This program will calculate the prime factors of a given integer that is, breaking it into the smallest values not evenly divisible by other integers. From the IAC.

PLOT
Will plot on the screen any function entered into the program, using text characters. From the IAC.

FAST FOURIER TRANSFORM
Computes the FFT of an entered set of X,Y points. From the IAC.

TOTAL
Adds a series of entered values such as dollars and cents. From the IAC.

LOOP ANTENNA
Calculates the number of turns of wire and total length of wire needed to make a loop antenna for a standard AM radio. This loop antenna will improve its reception. From the IAC.

XLINE IMPEDANCE
Calculates the impedance of a transmission line given its characteristics. From the IAC.

NUMBER BASE CONVERTER
Converts numbers from one base to another. For example, this program will convert a binary number to base 10. From the IAC.

HEX-DEC CONVERTER
Converts numbers from hexidecimal to base 10. From the IAC.

CALC PI TO 1000 DIGITS
This program will calculate the value of pi to any number of digits up to 1000. From the IAC.

LONG DIVISION DIVISION
Demonstration of long division showing the steps involved. Good demos for elementary students. From the IAC.

MULTIPLY
Demonstrates multiplication of integers. From the IAC.

MATH PRACTICE
A good drill program for elementary students. Aids in learning the functions of addition, subtraction, multiplication, and division. From the IAC.

DOM HEADER TAKER-OFF-ER
Looks like I goofed. The DOM header that has been on every DOM since its start has not always been written by a program. Therefore, there are some headers that will stop Muffin dead in its tracks (forgive the pun, I couldn't resist). The description of what is being done to make the DOM headers is in the July/Augest Call A.P.P.L.E. Rather than explain how to correct this problem, which is rather difficult, this program will remove the header from the offending disks. It should be Demuffined to DOS 3.2 before using. Written by Ken Slingsby.

DOM #10

January 1982
by Ken Slingsby

The DOM for January consists of the entire IAC disk #10, some local contributions and some programs taken from the Mini'app'les Library. The later was in existance before the DOM began.

From time to time, as space permits, material will be selected from that Library. Please let us know if this practice should be continued. Most of the Library programs on this DOM are from Call-Apple.

The first programs on DOM #10 are locally contributed.

LOGO
Some time ago, Tim Pfaff thought the DOM should have a logo. This logo should be something that becomes a trademark for the organization. This logo in not quite the same as the logo used in the newsletter, so perhaps a seperate logo could be adopted for the DOMs. I am not sure how Tim created this logo, but there is an ample supply for some future DOMs. Here is another opportunity for comments.

AUTO PROGRAM
This program will write some of a new program for you. It is an adaptation of a similar program written for the TRS-80. Bill Decoursey has rewritten it to work for the Apple. The program asks whether the user wants standard program parts to be included in the new program. These standard parts include such things as clear the screen, 'get' input, string array set-ups, etc. The resulting program segment is saved as a text file waiting to be exec'ed into a larger program.

SOFTWARE NOTE
The next group of programs comes from the IAC disk #10. They are a collection of hi-res graphics demos from fellow Apple users in Europe. Some of the file names are beyond me so I will not attempt to explain them all. Suffice it to say that they all can be 'RUN' and all will produce hi-res pictures or displays. Be sure to let the program DA BIN ICH run to its completion.

GAME SOUNDS EDITOR
This program will produce sounds on the Apple speaker in accordance with user-entered values for pitch, duration, rise or fall. The resulting sounds can be used in games of the user's writing.

STRING SWAP DEMO
What happens to the Apple when you write a program to sort string arrays? If you have tried this, you will notice that the sort goes on great for a while, then the computer appears to 'hang' for a minute while it does an automatic FRE. This becomes necessary because the string arrays become defined and swapped. In the process many unused string arrays are left taking up lots of memory. Here is a demonstration of a swapping technique that does not create those unused strings waiting for 'garbage collection'. By Randy Wiggington.

ANAMATION
This short program is a lo-res kaleidoscope. It is from the library.

ANAMATIONS

Here is a program from the library that will entertain the pre-school kids. It is a series of lo-res displays that they find captivating. By R. Bozek.

MEET THE COMPUTER
STORY TELLER

The Apple computer can be a great origional story teller. If you believe this..... These programs from the library will get a chuckle anyway. From Personal Computing.

REAL ESTATE PLOT

One of the uses for an Apple could be in selling real estate as this program demonstrates. The origional author is unknown. From the library.

SWORDS & SORCERY

This is an adventure program using only the text screen and your imagination. From the library. Written by Bruce Turrie of Belgium.

CALENDAR FOR PRINTER

The free calendars around the first of the year seem to have all but disappeared. With this program and an 80-column printer you can create your own for many years to come. Line 200 may need some adjustment for different printers. From the library. By Phillip Zimmerman.

DISPATCH TABLE LIST

If you do assembly language programming, there may have been times when you have wanted to use some of the routines in the Applesoft ROMs. This program gives the entry points for several of the routines. For further info see the IAC magazine of about a year ago. From the library. Written by Neil Konzen and Val Golding.

MUSIC MAKER

This program will allow you to input simple tunes and play them back thru the Apple's speaker. The sound does not compare with the synthesizers on the market now but neither does the price. Written by Bob Sander-Cederlof. From the library.

DOM #11

March 1982
by Ken Slingsby

The Disk Of the Month for February contains a tutorial in basic computer usage. More specifically, it is an Applesoft tutorial, however most of the concepts would apply to almost any computer. This may be just the thing to make a new user more comfortable with the Apple.

The tutorial is quite lengthy and takes up almost all of the space on the DOM. I ended up making a "weighted" flip of the coin to choose from other contributions to complete the DOM. The programs on this disk are:

APPLE TUTORIAL

The Apple Tutorial is from the IAC disk #11. The program was developed by Diarmuid McCarthy at the Dublin College of Marketing & Design. (It only works on a green screen! Ha ha, get it?) Mr. McCarthy requested that the software be made available to anyone who wants it and that no-one should make a profit from the sale of that software. That's the true spirit of Public domain. You may of course copy it and distribute it to anyone who wants it.

The program is not intended to be a stand-alone Computer Aided Education (CAE) device. However, it is nearly that as far as Applesoft is concerned. There are none of the usual questions found in the CAE material. There is a wealth of information contained in the tutorial.

While the tutorial was written with the new user in mind, there could be help for nearly everyone who uses it. I speak from experience!

It is recommended that you (or someone knowledgable) copy the tutorial onto another disk and have the tutorial only on the new disk. To do this, initialize a new disk using "APPLESOFT TUTORIAL" as the greeting program name.. Use FID to transfer the tutorial and its supporting files to the new disk. There are seven files involved. This will make the tutorial the standalone package it was designed to be.

TAX AID

If you, like many of us, are pondering over the New Year's Greetings from the Feds and the State, this program may be of benefit to you. NOTE: Mr. S. J. Fine wrote a tax program for us sometime ago that did the whole job for the Form 1040. Unfortunately, the tax tables have changed since then but then the program is not that hard to modify. See DOM #2, Jan. 1981. This program from Mr. Fine is to be used if you have interest income that is not taxable on the Minnesota State return. The program is self prompting and easy to follow if you can do your own taxes. An interesting programming feature of this program is the READAT routine. This will allow you to specify the line number of the DATA statement you wish to READ rather than having to read all preceding data statements first. This program contains embedded machine language. It would be wise to load it and then save it to a work disk before it is run. If you need to modify TAX AID, please contact Mr. Fine.

READAT INFORMATION

This is additional information concerning the use of the READAT routine. The first portion of the program is a demo of the routine, showing how the routine can READ from any DATA statement rather than forcing the programmer to sequentially READ all prior data statements to get to the one of interest. The second portion of the information program is a text file reader. The text file READAT.TEXT contains more details in the operation of the READAT routine. To save space on this disk I had to combine two of Mr. Fine's contributions into one file. Therefore the lines numbered less than 10000 are the demo of the READAT routine. Lines numbered 10000 and greater are the text reader program.

LOGO

This picture file is being tried as a logo for the DOM. If you have any comments, please forward them to me. The LOGO was created by Tim Pfaff.

DOM #12

April 1982
by Ken Slingsby

The Disk Of the Month for March 1982 contains the IAC disk #12, some programs from the Dallas Apple Corps DOM, as well as some contributions by local members. The IAC contributions are from the Ottawa (Canada) 6502 User Group.

The programs on the DOM are:

LOGO
This is the banner for the DOM (not to be confused with the LOGO language). The design was contributed by Tim Pfaff. He uses a Versawriter to create the hi-res display.

APPLESOFT LISTPRINTER and
APPLESOFT LISTER INSTRUCTIONS
This program formats Applesoft listings to the printer. Each line will be 60 characters long (less for shorter lines). The program name and a page number are printed on each page. Pagination is used so the printer does not print on fold lines. From the IAC.

AUTHORSHIP
This program will establish credit lines at the end of your Integer BASIC program. To use it, RUN AUTHORSHIP, make the desired changes by typing or tracing the form provided. Then RUN it again (with no program name) to 'hide' the lines. Load the Integer BASIC program you want the credit lines appended to and CALL 785. The credit lines will be numbered greater than 40000. From the IAC.

CALENDAR
This program will print a calendar for the year on a printer assumed to be in slot 1. From the IAC.

CONCENTRATION
Here is a card version of that favorite game. The program has excellent hi-res graphics. You may play against the Apple or watch the Apple play against itself. From the IAC.

CONNECTION
Make four sides to form a box to earn points. This game may be played by two players or one against the Apple. From the IAC.

CRIBBAGE
The Apple plays against you and keeps score. Good use of graphics is made in moving the cards. The Apple always seems to be able to get scores. From the IAC.

HEXCON
Displays both hexidecimal and base 10 (decimal) values of the entered number. Also displays the negative of the entered number. From the IAC.

HOOVER DAM
A simulation of the operation of a hydro-electric generating plant. The game progresses much like the game from Muse Software called "THREE MILE ISLAND" even down to the displays themselves and the method of calling the displays. From the IAC.

PAGE DUMP
Will dump a "page" (256 or $100 locations) of memory to the screen at a time. The left and right arrow keys control scrolling of successive pages. The dump can be formatted to be in either hexidecimal or ASCII. From the IAC.

SOFSYMREF
SOFSYMREF.S
This program, when BRUN, will print a symbol cross-reference for the Applesoft program in memory. The program is currently targeted to run at $6D60 (28000). The source code is provided to allow the user to assemble it for other locations using the S-C Assembler. Program from the IAC. Conversion of source code to S-C format by Dan Buchler.

STOCK TRADER
A game of trading stock to make a profit or suffer the losses. One of the most active stocks is, of course, Apple. From the IAC.

TEDISSEMBLER.S
The source for a dissassembler (?) in S-C Assembler format. From the IAC.

VIDEO TEST
A program which will display the classic television test patterns used to adjust color TV sets. From the IAC.

PUSNG
A binary "print using" routine. See lines 10 to 25 of the program IRA (below) for an example of how to use. Contributed by Al Peterman.

IRA
This program will figure the amount accumulated in an IRA account or regular savings plan for different interest rates and numbers of years. Will give a table output on the screen or printer. Printer output assumes an Epson MX-80 connected in slot 1. By Al Peterman.

AUTO-REDIAL
This program will allow the Hayes Micromodem to dial a number and keep redialing it at user selected intervals until a connection can be established. A very useful routine for those busy bulletin boards. By Al Peterman.

METRIC CONVERSION PROGRAM
A program to convert metric to anglo or anglo measurements to metric. Contributed by Warren Ostlund.

MUFFIN CATALOG
This program will catalog your DOS 3.2 disks on a 3.3 equipped system. You will need the Muffin program supplied with your 3.3 master disk. If you find the correct disk and want to muffin the programs to 3.3 the Muffin Catalog program will exit to Muffin.

ROM MOVER
A program to move the contents of the Apple's ROM to lower RAM addresses. Contributed by Warren Ostlund.

SLOW AUTO BREAKOUT
FAST AUTO BREAKOUT
This is the origional Breakout program modified to run by itself. The fast program is a compiled version using Mike Laumer's Integer Compiler. It is included here for cultural purposes. Note that although the compiled version is more than four times longer (in this case), it runs much faster. This is, in general, the way it is with BASIC compilers verses the intreperted versions. From the Dallas Apple Corps.

VISICALC FILE CHECKER
This program will dump the formulas from a Visicalc file to the screen or printer. From the Cedar Press Sept/Oct 1981 issue.

ERROR HANDLER
This program will handle the error messages that might be otherwise missed if the ONERR GOTO . . . is used especially during program development. If an error is detected this program portion will print the text of the error message and allow the user to edit the offending line or continue, ignoring the error. From the Dallas Apple Corps.

DISK SCAN 1.0
Here is a program that will initialize a disk, check it for bad sectors, and mark the VTOC appropiately if any bad sectors are found. The program may be run on disks full of software, however do not save the VTOC on these disks unless you have good backups. From the Dallas Apple Corps.

DOM #13

July 1982
by Al Peterman

As the new program editor, I would like to thank Ken Slingsby for the excellent work he has done in setting up the format for the disk of month and it's documentation. His work will make mine much easier.

The DOM features a DOS modifier to create custom commands such as 'FILL' instead of 'LOAD'. There is also a lovely system to create screens of text using a binary load of the screen page of memory, a technique that can save lots of memory space. For those of you who use Applewriter 1.1, there is a conversion program from Applewriter 1.1 to or from standard text files. And finally for those of you who might dare to use your Apple in a non-serious mode for gaming, there are some new MADLIBS, and an AWARI game.

LOGO
Logo for DOM - Created by Tim Pfaff using a Versawriter.

DOS MODIFIER II
A program to create your own custom DOS. This will allow you to tailor DOS error messages and commands to your own words. It is much like Beagle Bros. 'DOS BOSS' with a few extra twists thrown in. From the IAC.

REMINDER GENERATOR

A program to create REM statements in a text file that can be 'EXEC(ed)' into your program with ease. From the IAC.

DISK ZAP
A general purpose disk access utility to examine and modify information on a diskette sector by sector. From our 'old library' and the IAC.

ROWTSER
An Applesoft diskette examiner/modifier. It allows sector by sector examination with modification and printout capability. From the IAC.

PERPETUAL CALENDAR
This program will produce calendars for those of you who might need one for the year 2004! Another fine product from the International Apple Core.

TXFILER
A machine code program that will allow the conversion of standard ASCII DOS text files to Applewriter 1.1 format and vice versa. Very useful for the many of us who use Applewriter 1.1. Requires software contained on the Applewriter 1.1 program disk. From the IAC.

TXFILER INFO
An information program that will explain the uses and capabilities of 'TXFILER'. From the IAC.

INVERSE FIELD INPUT
Using INVERSE fields, this utility demonstrates a method to prompt on the screen the limits of a response expected from the user. From the IAC.

SCREEN WRITE INSTRUCTIONS
Instructions for the SCREENWRITER System. From the IAC.

SCREEN WRITE 2.1
Binary screen machine language driver.

SCREEN EDIT
The screen edit/create program for the 'SCREENWRITER' system. This program allows you to save/restore to/from disk copies of the TEXT page on your screen. With the editor, cursor control is provided to modify the screen at any point, inserting lines in NORMAL, INVERSE or FLASH mode. From the IAC.

LIFE EXEC
An 'EXEC' file to set the HIMEM and the LOMEM values for the life program. This is a good example of using an 'EXEC' file to set parameters and run a program. To use it type 'EXEC LIFE EXEC'. From the IAC.

LIFE (LOMEM 3072:HIMEM 8172)
The game (or should I say science) of LIFE in which dots propagate and die according to very set rules. This has produced many interesting studies on the topology of such sets of figures. 'Generations' are displayed on a LORES screen. From the IAC and various other sources.

MADLIB
This will liven up your next party with a new set of very funny 'Madlibs' (or fill in the blanks with blind stories). They are

new and have a nice routine to print on the screen in black and white. From the IAC.

AWARI
This cute little game is based on a not-so-obvious strategy. The game revolves around moving 'stones', shown on a LORES screen, from bin to bin. You compete with the computer. It is suitable for children as well as adults and is a good game to show elementary preplanning. From the IAC and the 'old library'.

DECISION
An excellent decision making program. It will evaluate many options or products with many factors and weigh the factors according to importance. It can save data to disk or tape and allows easy changes in the factor, items, importance or grading. From the IAC.

COMPUTERS.DECSN
An example of a binary file of data for the 'DECISION' program. This example shows how to choose a personal computer.

ARITHMETIC TAC DOUGH
This children's game can help teach the four basic arithmetic operations in a fun game of Tic-Tac-Dough. Two persons play on a LORES Tic-Tac-Toe board which displays the results of your arithmetic skills. From the IAC.

HERB'S CALCULATOR
This program will turn your $2000 Apple into a $25 full function calculator. It has square root and exponential functions and even looks like a calculator! From the IAC.

STATE CAPITALS
If you need a little help with your U.S. geography this program will help you remember the capitol of West Virginia (or any other state). Uses a LORES color map of the USA. From the IAC.

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DOM #14

August 1982
by Al Peterman

This DOM features a graphics packer/unpacker routine contributed by Chuck Boody that will allow you to store high resolution graphics on disk in as little as 8-10 sectors. That can be a savings of 70% over the usual bit mapping method. The hello program (MINI'APP'LES) shows one way to use these routines in an existing program. Also those of you who saw the formatting programs in the May & June newsletters and did not immediately type in the programs to try them out can now see how they work without having to enter them manually. There is a 6502 simulator program that will be quite useful for those of you who have always been interested in machine language programming, but didn't know where to start.

For those of you into adventure games, there is a rather nice version of JACK AND THE BEANSTALK and you don't get to be the giant! Also for those of you who wish to explore every possible Apple command try CATTLECAR GALACTICA and be prepared for unusual events. Lastly, there are 3 Integer BASIC low-res games that are simple enough for children and fun enough to keep anyone interested for awhile.

LOGO 14 (PACKED)
A 'packed' hi-res picture. It can be displayed with UNPACKER and is the logo for this DOM.

PICTURE PACKER
An Applesoft program to use the PACKER routines in a fairly well documented manner. It provides you with the ability to CATALOG the disk.

PICTURE DISPLAY
The other Applesoft program to allow one to display the 'packed' picture. It also has the CATALOG option and will switch to 'picture packer' with the '/' command.

JACK AND THE BEANSTALK
A fairly extensive adventure program. It has a save-game option (if on a unlocked disk). Developed by M.A.C Software and contributed by Janelle Norris.

CATTLECAR GALACTICA
A dandy problem for you! It will let you test your knowledge of all APPLE commands and languages and provide some entertainment at the same time. By the inimitable Bruce Tognazzini.

APPLESOFT
Not really Applesoft nor is it 43 sectors. I leave it up to you to discover the true identity of this file. Warning: do not erase this file even if you have Applesoft in ROM.

COMPUTER SIMULATOR
An excellant simulator of a 6502 which allows you to program it and then step through the program seeing all the registers and addresses change as you do it.

LIFE EXPECTANCY
A program to forecast your life expectancy by evaluating the effects of your personal lifestyle. It runs in a questionaire type manner and explains some of the less obvious results to your answers. From the 'old library'.

WHITE'S FORMATTER
A program to demonstrate a method of formatting decimals in dollar and cents format. From "Dave White" and the June newsletter.

ONAN'S FORMATTER
"Dave Onan's" decimal formatter from the May 1982 newsletter is another way to get decimal points lined up.

MURRELL'S NEW INPUT
"Mike Murrell's" input routine to allow you to get input by analyzing the position and data at the cursor. Again from the May newsletter.

CRASH CARS

A low-res game of deceptive simplicity. It is like the arcade game but adds the problem of not allowing turns that crash into the outer walls. From the 'old library'.

DON'T FENCE ME IN
A low-res game from the 'old library' that was copied in the movie TRON. The game is between 2 players that try to surround each other with moving lines. It is well documented.

INTERCEPT
Another low-res game from the 'old library'. This game is designed to test your skill in getting to parts of the screen without running over the path you have already traversed.

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DOM #15

October 1982
by Al Peterman

This Disk of the Month represents some of the best public domain software created by the Mini'app'les membership over the last 2 years.

The first new program (and one of interest to nearly everyone) is a very well done mailing program written by Dana Lonn. It has many features of the commercial programs and a few they never even thought of! Chuck Boody dug into his stock of student programs and found four new games/demos. POKER DICE is a nice game and the TRICOLOR GRAPHICS are really quite stunning. Lastly, there is Rob Wentworth's SLOT MACHINE which is as nice visually as Bill Budge's 'Raster Blaster'. However, it is in Integer BASIC.

Also on this DOM are a few programs from the old library and other places. The CHECKBOOK BALANCER is a simple little program to simulate the form on the bank statements and the APPLESOFT AUTO-NUMBER adds the line writing feature that Applesoft should have had in the first place.

MAIL LABELS
A rather nice mailing label program. It allows one to handle files of up to 400 names and sort them alphabetically or by zip code. It also will go to condensed print for names that are too long for a standard label. By Dana Lonn.

CLUB OFFICERS MAIL LIST
A sample of a 'MAIL LABELS' name file.

COMPARE MODIFIED
Tom Edward's modification of a program by Chuck Boody for comparing versions of Applesoft programs. The programs should be turned into text file format for comparison. From DOM #5

MAKE LINE CAPTURE
A routine to create an 'EXEC' file from a program. It can be used with 'COMPARE'. By Dave Nordvall from DOM #7.

HI-RES DUMP.EPSON MX-80
A dump to an EPSON printer of a HIRES picture. It requires an interface that can output 8 bits of data (any but the Epson

board). See the instructions in 'DUMP INSTRUCTIONS'. By Cary Mariash and Dan Buchler from DOM #7.

INVERT HI-RES PAGE 1
A machine routine to invert the black and white areas for the printing of a HIRES page. See 'DUMP INSTRUCTIONS'.

DUMP INSTRUCTIONS.A
The instructions for running HI-RES DUMP.EPSON MX-80 and INVERT HI-RES PAGE 1.

MOVE SCREEN UTILITY
This program gives a method of creating a very nice title page. The notes will make this utility adaptable to your own programs. By Steve Sullivan from DOM #9.

PAYMENT CALCULATOR
A little program to calculate the total payments on loans for a range of interest rates and maturities. By Alan Peterman from DOM #6.

AUTO-REDIAL
A menu driven program to allow easy use of a Hayes MICROMODEM II. It will dial any bulletin board and redial if it fails to get through. It can automatically redial at set intervals. By Alan Peterman from DOM #12.

TEXT WRITER B1
A text processor based on an article in 'MICRO'. Bill Hamelink modified it and made it much more elegant. From DOM #6.

GERMAN
A German/English vocabulary exercise. It can be modified to create flashcards for any language or math situation. By David Lau from DOM #8.

BIORHYTHM PRINTER
A biorhythm program that will print a hardcopy for any time period desired. By John Schoeppner from DOM #9.

APPLESOFT AUTO-NUMBER
A program to give APPLESOFT automatic line numbering. The program tells how to get the intervals and starting line number you desire. By Daryl Hammond from the old library.

CHECKBOOK BALANCER
A program to help you reconcile a bank statement with your checkbook. It works much like the form on the back of most bank statements.

AUTO PROGRAM
Bill Decoursey's version of a system to write the standard parts of programs. It includes input and output routines and also has some utilities such as CLEAR SCREEN. From DOM #10.

PARABOLIC CALCULATIONS
A program to calculate and display a parabola from inputed data on the focus point and the object line. By Frank W. Claude.

PARABOLIC ERROR
A program to calculate the limits of the foci of a parabola. By Frank W. Claude.

SLOT MACHINE

An excellent Integer BASIC hi-res Slot Machine game by Rob Wentworth. It uses PADDLE 1 as the lever to throw the slot machine into action and actually reads the speed the paddle is turned to get the speed of the wheels.

POKER DICE MK V
The game of POKER DICE (rather like YAHTZEE). It was done by Mark Anderson who was a student at Belle Plaine High School. This (and the next three programs) show that first year programs can be quite entertaining.

TRICOLOR GRAPHICS
A color graphic demo program done by Todd Peterson who was another Belle Plaine H.S. student. This is a watch and enjoy demo of HI-RES graphics. Chuck Boody added the color flipper routine at the end of the program.

BRAKING DISTANCE
A program to calculate braking distance for a car under various circumstances. The numbers are realistic for a 'normal' car but may not reflect a Porsche or an overloaded pickup. Also by Todd Peterson.

COLOR BARS
A quick color recognition game by Keith McConnel. It is a cute and creative game that requires a color display to play.

DOM #16
November 1982
by Alan Peterman

The November DOM contains some useful utilities for HI-RES work and the often asked for Integer BASIC in RAM for those of you without a 16K or ROM card. As always, the disk has a distinctive logo to start it off, but this month's disk has a NEW logo that uses shape tables and the DRAW command. This program is a good example of how to use SHAPE TABLES (pages 92-100 in the older Applesoft manual).

In addition, Mr. Fine has given us another fine tax program to do the work on IRS Form G (income averaging) or the other tax rate schedules. He has also given us a nice cryptology program that makes code breaking more convenient. Included are a few sample files of codes to work on. Please DO NOT call me for the answers. I don't know them.

Under the miscellaneous category is a sales program by David Lau for recalling sales data and printing out reports. For the golf set there is a program to analyze scores. It comes from Dana Lonn, along with his golf scores for the '82 season.

Since no DOM would be complete without a few games, there is a new game, APP-MAN, from Kevin Bradley and Jeff Merth and some old Integer BASIC games that WILL run under the RAM Integer BASIC on this disk.

MINI'APP'LES
Hello program and logo display by Brigg Field. Uses shape table to draw HI-RES graphics in motion.

GRAPHICS UTILITY
A graphic utility by Dana Lonn and Larry Trottochau. It allows one to draw on either HI-RES screen, lines, circles, colored areas, etc. It will allow BLOAD's from disk and will merge screen 1 and 2 for a composite. It also has a text add feature to put text onto the HI-RES screen. The program is menu driven and deserves some study. It uses the files 'PAGE COMBINE and 'HI-RES DUMP.EPSON MX-80'.

APP-MAN VER 6.1
A deceptively interesting game like BLOCKADE that allows one to try to out-maneuver the computer on a field. By Kevin Bradley & Jeff Merth.

TAX.82T/SCHED'G'
A program by Sam Fine that will compute the tax owed on federal tax rate schedules. It will allow you to save and recall the data from disk and has rates for married and single taxpayers. It is tentatively current for 1982 rates.

NEW CRYPTO
A cryptology program that allows saving and recalling of partially completed problems. It has the ability to quickly let one try different substitutions and see what happens to the puzzle. Contributed by Sam Fine.

INTEGER BASIC-DISK
If you who don't have Integer BASIC, this is the integer in RAM that you need. Just 'BRUN' it and you will be in integer. It may not work for very large programs or programs that use HI-RES graphics.

GOLF
Another Dana Lonn program. This will keep track of your golf games and lets you analyze them for consistancy as well as handicap, etc.

SALES PROGRAM
A modification of the PHONE NUMBER program on the DOS MASTER disk by David Lau. While it leaves somethings to be desired, it is a good example of how to modify a program to get one that better suits one's needs.

G/NIGHTMARE GAMEPAK
From the old library and CALL A.P.P.L.E comes this set of games and garbage that will perhaps prove interesting to some game players. As a guess this is for ages 8-15 although one of the games might be entertaining for any age group. In Integer BASIC.

I DARE YOU
Another Integer BASICgame from the 'OLD LIBRARY'. It is based on dice throwing and will play for one or two players. It will teach the probabilities involved in dice games by defeating you if you go for 'SUCKER' odds!

CURVE FITTER
Another 'OLD LIBRARY' program that will fit data to the best curve and analyze it for consistency.

DOM #17

January 1983
by Alan Peterman

This newest Disk of the Month features some programs from the International Apple Core as well as some programs (and modifications) by our own members. While this disk is rather heavily oriented towards the programmer or advanced user, there are several programs that should be useful for all users.

For those of you who don't have two drives for copying and hate the constant disk swapping, there is a revision of SINGLE DRIVE COPY PGM for DOS 3.3 that will speed up your file transferring. It will copy all files and will take up to 110 sectors of material at a time. Also, this disk has a modified DOS that will boot Integer BASIC into the language or RAM card in under 3 seconds and there is a program to allow you to put this DOS on your diskettes. Going along with the disk access programs there is a rather slow but thorough SECTOR MAP program that will tell you where on the disk each program is located. This can be useful in cases of bad disks or merely to know what the disk's format is. Lastly, in the disk category, there is a program to let you use track 35 and gain 4K of storage. Evidently, most Apple (and compatible) drives can use track 35 for a total of 36 tracks (0-35).

For recreational use, Jeanne Walsh has contributed a program that will generate and save music files. On the DOM there are two examples of music files. It probably would be a good idea to transfer the MUSIC program onto a work disk so that you can write new tunes to disk. Also, there is an interesting game/puzzle from Ken Shuck called PETALS. He claims in the instructions that the name is a clue to the solution of the puzzle, but I, for one, didn't get any help from the name. Also, there is a CALORIE COUNTER program that will keep track of your diet now that the holidays are over.

Utility people should have a field day with the subroutines in PUF (Print Using and Friends). It allows easy formatting of dollar amounts and has a string swap and array delete command. Also the POKE.33 routine makes program editing easier. There is a program, HUFFIN, to read Pascal disks in DOS and a program to read the memory of the Apple in standard ASCII. Also there is a long list of important addresses in the Apple and a program to convert lower case to upper case for people without lower case chips. An 'EXEC' file called MEMAP will tell you how you are currently using the RAM memory and the UN-NEW program will restore a lost program if you accidentaly type 'NEW'.

SINGLE DRIVE COPY PGM
An updated version of a DOM #2 program that will be very helpful to owners of just one drive. It allows you to copy several files at one pass including text, Binary, and Basic files.

FASTBOOT CREATE
A program to create a fast-booting DOS that will load Basic into the RAM card in under 3 seconds. This makes Integer much more convenient to have up. The program describes exactly how to modify your disks for this fast DOS. It uses the file FAST.LOADER and FAST.RWTS (Read Write Track Sector) to accomplish the changes to DOS. These programs should be used on a disk after initialization to create the fast-booting disk. Another way to get the FASTBOOT is to initialize a disk after booting a disk that has this DOS active. From the IAC.

CALORIE COUNTER
A nice program that will keep track of daily caloric intake and has a built in library of foods. You tell it what and how much you ate and it gives the total calories consumed and the amount of weight you gain or lose. Donated by Ken Slingsby.

MUSIC
A music program that allows you to generate files of music or play back ones that you previously saved. It covers 3 octaves and has tempo adjustments. By Jeanne Walsh. There are two files of music to play on the disk or you can create new music files by entering the note, duration and octave for the composition you are working on.

PETALS
A HIRES dice game by Ken Shuck. It lets you find the rule for getting a number from the dice displayed as a mathematical puzzle. There is a good routine for displaying dice cubes that one could adapt to another game.

ADDRESS INDEX.INSTRUCTIONS
Instructions on how to use the ADDRESS INDEX program. It tells how to convert the ADDRESS INDEX to upper case if you don't have a printer or lower case chip. From the IAC.

ADDRESS INDEX.LC
A long list of important addresses in the Apple. List it on a printer to get a very good reference or read it on the monitor. For more info run 'ADDRESS.INDEX.INSTRUCTIONS' first. From the IAC.

LC-KILLER.INSTRUCTIONS
Instructions on use of the LOWER CASE KILLER program. From the IAC.

LC-KILLER.OBJ
The binary lower case killer. It will convert any lower case in a program to UPPER CASE. This can be very useful if your Apple doesn't have a lower case chip and the programmer did have one. Run the instructions for full info. From the IAC.

SECTOR MAP
A nice program to map out where on the disk each program's directory is and how the total disk is used. In Integer and from the IAC.

DISPLAY ASC PAGE BY PAGE.INST
A program to describe how to display the current memory of your Apple in standard ASCII code. The program is a machine language program that you 'BRUN' to 'read' memory without having to convert from HEXADECIMAL. From the IAC.

HUFFIN
A program to let you read PASCAL disks on a DOS system. If you get a disk in PASCAL you can access the data with a standard Apple and/or convert the data to DOS for use in non-PASCAL programs. There is an instruction program to describe the use of this utility in more detail. From the IAC.

POKE 33.INSTRUCTIONS
Instructions on how to use the POKE.33 system. If you program, it allows a one keystoke change to a 33 column screen which makes editing of programs much easier. This program sets up an ampersand vector so that all you have to do is type "&" and the program switches the screen mode. The machine language program comes in a normal Binary file which can be 'BRUN' and a relocatible version. There is also a source file for those of you who know what to do with such a beast. From the IAC.

PUF.INSTRUCTIONS
The instructions for the 'PRINT USING AND FRIENDS' program. This handy set of routines provide the ability to easily define print formats and also provide a mechanism to clear-to-end-of-line or -page. Like the POKE.33 program there is a source code file in addition to the object file. From the IAC.

TRACK 35.INSTRUCTIONS
The instructions on how to modify DOS to allow use of track 35 on the diskette. The disk now uses 0-34 (35 tracks) but most can access track 35 and gain 2048 bits more storage. Again there are object, source and relocatable files. From the IAC.

UN-NEW.INSTRUCTIONS
The instruction for a little program to UN-NEW. If you accidentally type "NEW" and then realize you have lost a program that you wanted, you can 'BRUN' UN-NEW and recover it. While this shouldn't be a routine that is needed often it may be crucial the one time you need it! From the IAC.

MEMAP (EXEC)
A set of commands to list out the way your Apple is currently using memory. It will give the current values of HIMEM, LOMEM, THE VARIABLES, DOS, STRING ARRAYS etc. From the IAC. To use it at any time just type 'EXEC MEMAP (EXEC)'.

DOM #18
Diversi-DOS (Personal Domain)

DOM #19
Fire Organ (Personal Domain)

DOM #20
EAMON see EAMON Listing

DOM #21
EAMON see EAMON Listing

DOM #22
March 1983
by Alan Peterman

Once again a few of our members have gotten publication of their creations (as well as a free DOM) by giving us some nice programs. There are also a large number of programs from the International Apple Core.

Just in time for taxes we have a current version of Sam Fine's tax program that will calculate federal taxes and form G. Also of general use is a program to calculate loan amortization schedules, and a very nice calendar printer.

Recreational users will find a nice hi-res lunar lander game, a gambling game and a car race simulator. There is also a Morse code program and a card game. Those of you who like to play with BASIC will find a cute little puzzle in the LIST THIS FILE BEFORE IT'S RUN program.

Programmers should have plenty to work with on this disk. There are some utility routines from the IAC and Beagle Brothers to create nice screen effects. Also there are about 15 SOUND files to add strange (and wonderous) noises to your programs. There is a nice screen menu program to aid in selecting options from a list and a PRETTYPRINT system for program listings. Also, the machine language programmers will find a utility to help them in their arcane avocation.

MINI'APP'LES
A new hello program by Steve George. It has some information about the club, and will display the new DOM logo.

DOM DISPLAYER
A program to display the DOM logo. By Steve George.

CALENDAR MODIFIED
A program to print monthly or yearly calendars. It will also calculate the number of days between two dates, as well as the day of the week for any date. This program was donated by Ken Slingsby and modified for the PROWRITER by Al Peterman. For information on exactly how to use it there is a

program called 'MX-80 CALENDARS/DATES INFO' to help the user.

TAX.82/SCHED'G'**
The latest and most powerful form 'G' preparing program from Sam Fine. It has the correct data for 1982 tax forms. It uses the 'READAT' routine for the tax table data, and has a screen dump for the MX-80.

GAMBLER
A gambling (what else) program that was keyed in from 'SOFTSIDE' magazine by Ron Newquist. The program simulates many different games of chance and, in my experience, will teach you how to lose!

GRAPHING FUNCTIONS IN HI-RES
A program from the International Apple Core that will graph functions on the hi-res page with options on scale size. It allows inputting of various functions.

TWIRLING CURSOR
A little routine to create a cursor that appears to twirl. It is similar to the cursor that the Hayes Terminal Package uses. From the IAC and Beagle Brothers.

LIST THIS FILE BEFORE IT'S RUN
A cute little exercise in strangeness. List this file then run it - or vice versa. I have not figured out exactly what is happening, and maybe when someone does they can give us a hint on how it is done. From the IAC.

TRICK FILE NAME UTILITY
A way to name a file so it cannot be easily changed. We use a similar scheme in the header files for the DOM. The trick is starting the name with a bunch of Control H's to backspace some of the info out of the Catalog window. From the IAC.

HI-RES SOLAR SYSTEM SIMULATOR
Astronomy buffs may like this program as it will plot the positions of the planets in actual positions, and can plot their motions for a period of time. From the IAC.

FILE ARRANGER UTILITY
A little routine to rearrange the order of files on a disk. DO NOT run this on this disk or any disk of importance without reading the instructions. From Beagle Brothers and the IAC.

LOAN AMORTIZATION TABLE
A program to print out loan amortization schedules. From the IAC.

^^255 HI-RES COLORS DEMO^^
A neat demo of all the colors that can be put onto a screen. Use a color display to see all the shades that this will create by mixing the primary colors. From the IAC and Beagle Brothers.

PAUSE (WORKING) ROUTINE
For those of you who want a pause that refreshes - this will give a cute 'time out' in a program. From Beagle Bros. and the IAC.

BILLBOARD DISPLAY DEMO
A scrolling billboard type display routine from Beagle Bros. and the IAC.

SOUND1(CALL2921)
The first of many SOUND files that can be loaded and then 'CALL'ed up or 'BRUN' by themselves. The sounds are not just simple tones but rather complex creations that will definately draw attention to themselves. These may be quite good for embedding into a program to call attention to some process. From the IAC.

MENU MAGIC
A routine to create nice SCREEN MENUS that can select options by the arrow keys and the 'RETURN' key. From the IAC.

MOONLANDING
A nice hi-res moon landing game. It uses the paddles (or joystick) to control a lunar lander coming in for a landing. The animation is quite good. From the IAC.

ERROR HANDLER
A routine to add to your programs that will add error handling routines. It is well done and can be 'EXEC'ed into a program under construction. From the IAC.

ADDRESS SEARCH SYSTEM
This system is designed to help machine language programmers find bits of code in long routines. It searches a range of addresses for certain hex codes. There is an INSTRUCTION PROGRAM to give specific details on the use of the machine language program, the SOURCE file, a relocatible object file, and a standard binary object file. From the IAC.

DISK FREE SPACE
A nice program to show how much free space is on a DOS 3.3 disk. It also gives a graphic display of which sectors are in use. From the IAC.

MORSE CODE
A program to test your ability to receive Morse code. It can also be used to help you practice receiving the code. It has variable speed and length of messages. From the IAC.

PRETTYPRINT
A nice - but slow - program to print Applesoft program listings with indents for subroutines and loops. There is 'TEXT' file called APPRINT that will create a LISTING file that PRETTYPRINT works from. Run the 'PRETTYPRINT' program to get the instructions on using the system. From the IAC.

SHUFFLE
A card game from the IAC in which the object is to arrange 4 rows of cards into ascending order in the least possible moves.

SPACE CANYON
Another game from the IAC that uses a paddle to manuever a car in a twisty channel. The car is a little hard to turn accurately - but one learns how soon. From the IAC.

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DOM #23

June 1983
by Alan Peterman

DOM #23 features some local programs, a few dregs from the IAC disk #20 and a few 'goodies' from the 'old' library. As there is only one file in Integer Basic, everyone can access most of the programs.

I have put a couple of general use programs on the disk including a nice scheduling program by Gareth Tobler. It will print charts of weekly schedules and allows saving, editing and loading of data files. Also, Gareth gave us a nice menu driven program to place the C. Itoh PROWRITER, and other command compatible printers such as the Apple DMP, into the most often desired print modes.

For those of you who are into games and educational software, there is a program to teach making change and two simulation games.

Programmers may find the GRPRINT system useful to do graphic screen dumps on IDS and EPSON printers. Also, the GETFILE/GETSECT utility from the IAC may prove useful in some arcane application.

If you use THE Spreadsheet Version 1 program, you may find the SSORT useful. It will sort Spreadsheet text files of up to 238 columns or a total of 250 rows and columns on two sort fields. It is not quite finished as it does not deal with negative numbers, but an update is probably forthcoming. It requires a 64K Apple (RAM or //ec).

PASSWORD
A nice little program that shows one way to use password protection for data entry. The password is part of our club name and also the name of an Austin sports sedan. If all else fails check the ASCII codes in the program to find the small password! By Ken Shuck.

PRINTER
An example of a menu driven program to set up your PROWRITER or Apple DMP printer into some of the different fonts available. It puts together a string of commands into a concatenated string and puts the printer into the desired mode. It will then do a test print and set the printer at the top of forms, if requested. By Gareth Tobler.

WEEKLY SCHEDULE
A rather comprehensive program to generate weekly schedules and print out charts of the appointments and commitments you have made. The program is in 24 hour clock mode for the hours of 0800 to 2300. It was written and submitted by Gareth Tobler.

MAKING CHANGE.2
A simple educational game of making proper change by Bob Paff. It is probably most suitable for ages 5-9.

GRPRINT SYSTEM
There are four files that make up the 'GRPRINT' utility. It is a graphic dump that has been modified from ideas in BYTE (12/82) and works for the EPSON MX-80 and IDS-445 printers. The first two files are assembly language source code in standard text file format. Contained therein is documentation on configuring the system by POKEing certain locations with the required parameters. There are choices as to the starting line of the hi-res page to print and the ending line as well as choice of screen 1 or 2. This information is reprinted below. The two binary files are the actual machine language programs. To use them 'BLOAD' the appropriate one and then issue the following POKEs and CALLs:

For the EPSON printer
  POKE 768,S for the starting line
  POKE 769,E for the ending line
  POKE 772,P (1 or 2) for screen number
  CALL 781 to start printing.

For the IDS-445 printer
  POKE 768,S the starting line
  POKE 769,F the ending line
  POKE 771,C size of dump C=28-30
  POKE 772,P screen page
  CALL 779 to initiate the routine.

SSORT
A program to sort THE Spreadsheet Version 1 (from A.P.P.L.E) files by Dick Peterson. It will sort THE Spreadsheet textfiles alphabetically and numerically. It requires 64K and does not handle negative numbers. It uses a DOS mover routine as well as a machine language sort. The source code for the machine language sort as well as a text file of REMarks are included to facilitate use of this sort. The DOS mover will not be activated if DOS has already been moved and is compatible with (and much faster) with Diversi-DOS.

GETFILE INFO
The information and example program for the GETFILE & GETSECT programs. It will read the disk and tell how the sectors are allocated. The program seems rather redundant but since the IAC published it you get to see it! There is a source code file as well as the machine language routines and an Applesoft demo program.

LAPLACE INVERSION.DOCUMENT & INVERSION
These programs are for those of you who cannot live without doing Laplace transforms and inversions (don't all stand up at once). There is an introduction and explanation of how to use the Laplace inversion program in the Laplace Inversion.Document program and the actual inversion program. The program is powerful but still slow. It features a movable cursor to examine all of the plotted points. You must key in the equation desired (in 'S') as program lines before the program will process it for you. From the IAC.

OREGON TRAIL
A classic simulation program from the 'old' library. It is in Integer Basic and entirely textual so don't expect graphics. However, do expect to learn how to budget and manage a massive move in primitive times.

ATOM 20
Another simulation from the 'old' library. This is in Applesoft so you all can run it and find out how to survive after the MX's have flown. There is much more luck involved in getting through this program than 'OREGON TRAIL' but it is possible.

DOM #24 & #25

July 1983
by Alan Peterman

This month I am passing along two diskettes from the International Apple Core. There is an educational diskette (#24) and a machine language diskette (#25).

The "education" disk is full of games/learning activities for young children and the "machine language" disk has many utilities and tutorials on the use of machine language programming. Because of the inherent structure of the disks, I was not able to put the usual Mini'app'les introduction and menu programs on these disks. However, there are good menu programs and introductions on each disk.

The educational disk DOM #24 contains a very wonderful hello display in hi-res graphics that may well be worth the price of the disk. After that display it goes into a menu/explanation routine for selecting which program to run. The games are rather simple drill type games, but with innovative graphics to entertain children. Don't let my use of the term "simple drill" keep you from seeing these games. All the games have been compiled using the GALFO1 compiler and run like lightning. {Chis Galfo of California wrote a very sophisticated Integer Basic Compiler which, as well as speeding up the execution of Integer Basic by several binary orders of magnitude, provides enhancements that add Applesoft features to the language. The Educational programs on the DOM are written in this enhanced version of Integer BASIC.}

ONE NOTE: the menu states that you can use the <ESC> key to get out of the games and back to the menu, but several of the games just exit to BASIC and then need rebooting to recover the menu.

DOM #25 is the IAC release of the Loyal Ontario Group Interested in Computers (L.O.G.I.C.) machine language disk. It features a binary entry program, the MASM and mini assemblers, a couple of nice tutorials on machine language programming and use of the assemblers and some other basic utilities including a disassembler and a memory dump/interpreter. Each program has a tutorial or instruction program so use of the package should be fairly easy. Anyone interested in machine language programming should have this disk!

DOM #26

August 1983
by Alan Peterman

This month's DOM is actually the International Apple Core disk #26 that I have decided to release in it's entirety. This is due to the IAC's scheme of putting enough good documentation on some of their disks so that my job becomes quite a bit easier. Also, by the time I fixed the catalog to eliminate all the INVERSE listings (that cause printers to go into spasms), and getting rid of all the other cute 'enhancements' with which the the IAC dresses up their catalog, I decided to leave the programs as they were.

At any rate, you are getting some programs and systems donated to the IAC from other member clubs. For those of you who might not know our DOM #15 was released in it's entirety by the IAC as one of their disks, so don't think other clubs aren't suffering through our programs.

From the *Apple Fritters of Rhode Island*, we have a system of programs that work with the **Rubik's cube**. The programs WILL NOT solve a cube, but they are nice for playing around with one, and for seeing the use of CHAINING within Applesoft programs.

The *Brasil Apple Clube* has given us some **Integer programs** and a short file that will run Integer on a 48K Apple II+. The programs include a cute short disk space program, a program that gives the length and address of binary files, a very nice menu program and a program to delete all unlocked files on a disk. As a comment about the last program, it may be interesting to some of you to know that the Apple DOES NOT really delete the information on the disk when you DELETE a file. All the DELETE command does is to mark the directory entry that the file has been deleted. Until the sectors the file used are written over, or the directory information is covered by writing a new file name over it, the file exists and can be recovered. This has some possibilities for loss of security of important data. By the way, when you give me programs for DOM's, I don't always undelete old files....

The Maryland Apple Core is represented by a couple of **calendar programs**, one of which has a reminder system built in. It could be handy for keeping track of all the Mini'app'les meetings. They also have given us a **HIRES shape generator** system with extensive documentation and a label printing program that will print multiple labels (after you fix line 210 to put your printer into the proper mode). There is a memory dump program that will dump any section of memory (note specify 'P' for printed output and 'X' to end) and a program called **FINDER** that doesn't seem to work. We can use it and it's documentation files as a puzzle for you to figure out how it works, what it does and why it doesn't!

Lastly, there are some programs from the *Erie Apple Crunchers*. The most useful is a program to **MASTER CATALOG** multiple diskettes. While it isn't as good as the old program from Programma International, it is quite useful for organizing your diskette library. It does have an entry mode that allows one to enter manually data for non-catalogable disks. There is a sort option, albeit a slow one, and a separate printing program to give you hardcopy reference to your disks. They have also given out a checkbook balancing/analysis program that is rather comprehensive for those of you who want to keep track of your funds. Finally, there is a neat hello program and a couple of logic games to keep the old synapses lubricated.

DOM #27

November 1983
by Alan Peterman

This month's DOM has some programs written by our members and some from the Adam & Eve user group of Madison, Wisconsin. While I prefer to put out disks that are entirely original material OR re-release other groups disks, there was not enough good material from any one source for this release. This DOM should have something on it for almost everyone as it includes games, useful routines, business programs and programming utilities.

I am glad to have found on the disk from the *Adam & Eve User's group* disk some very interesting programs, including some from Mini'app'le DOM's. There is a very good **font editor** and display system that allows one to create custom character sets. Also, there is a program to input and **edit machine code** for those of you into machine language programing. They also provided a routine to relocate machine language programs and a program to search Applesoft programs for any given string. For beginner programmers there is a program that gives examples and helps show the proper use of DOS text files for storage and a program that helps to explain and visualize how arrays are defined. Lastly, there is one of the best **'LIFE'** systems I have ever seen which allows one to store beginning positions.

Our club is very lucky to have some excellent programmers who are willing to share their programs with us. *Mr. William Buending* has given us four programs that include a **decimal to hexadecimal converter** for very large numbers, a **rounding display** routine, a program to calculate the amount of **disk space** a random access text file will occupy and return-on-investment program. The last mentioned program is very slick and will allow editing of data, hard copy printout, and storage of data for later retrieval. Dave Nordvall has given us a program to input and edit machine code using 16 of the Apple's keys as a hex key pad. I suspect that this program may NOT work on a //ec.

Finally to round out this disk I chose some **games** from that *Will Schneider* submitted from various sources. There is a program that analyzes sentences for **reading difficulty** and is much like 'FOG INDEX' from DOM #5. There is a graphic bowling game in Integer BASIC (needed for speed) and an adventure game in text.

The detailed descriptions of the programs are as follows:

BIG NUMBER HEX-DEC
A program by William Buending that turns large numbers into hexadecimal to save space in storage. It will handle much larger numbers than Applesoft!

DECIMAL-DISPLAY
A nice program by W. Buending to display as many decimal digits as wished. As in many of these programs it may be useful as a subroutine to round numbers within another program. It can round off at up to 10 decimal places.

CALC-DISK-REQUIREMENTS

A program that calculates the number of sectors that any RANDOM ACCESS file will require. You input how many records to store and the size of each record and it will show how many sectors will be used. Again by William Buending.

ROI-CALCULATION
An excellent program to calculate the return on investment. It allows editing of the input numbers and will print hardcopy results if desired. By William Buending.

HEX KEY PAD
Dave Nordvall's input program for HEX entry of machine code. It turns a grid of the Apple's keys into a 4x4 hex key pad. It also has editing and storage capabilities for the hexadecimal data entered.

DISK FILE ROUTINES
A program from the Adam & Eve user's group that shows the use of DOS storage commands. It gives examples for RANDOM and SEQUENTIAL files and even has an example mode that stores and retrieves data in real time. This should be a great aid in learning the use of text files in Applesoft programming.

INLINED.DOC
The documentation program for 'INLINED'. This program is another input line editor for machine language programs. It was written by John Rogers of the Madison group.

INLINED
The actual editor program.

RELOADER.DOC
The documentation for the 'RELOADER' pgm from the Adam & Eve group. This is a routine to relocate machine language code to different areas of the Apple's memory and keep straight the refrences.

RELOADER
The RELOADER program for relocating binary programs.

HIRETEXTDEMO/3
This program from the Adam & Eve group is a lot like HIGHER PRINT in that it allows you to display as text special custom fonts on the HIRES page. The documentation is quite complete and uses the higher text routines. All of you will be able to have true upper and lower case using this routine with no additional hardware. The machine language program that allows this magic is named HIGH-RES-TEXT/3.

DEMOTEXT/3
The text file of the demo for the 'HIRETEXTDEMO/3'.

CHARACTERS
A character font generator program to create your own special fonts. It has full storage and retrieval capabilities and has most of the features of HIGHER TEXT. It creates fonts compatible with the HIGH-RES-TEXT/3 system. By John Rogers of the Adam & Eve users group.

ROMAN FONT CHARACTERS
A character set much like the standard Apple set.

SOFTFIND.DOC

The documentation program for the SOFTFIND program from the Adam & Eve users group. SOFTFIND will search Applesoft programs for strings and can be used to debug or modify programs. Nearly GPLE for free!

ARRAYS
A program to show and test your knowledge of how arrays are constructed. By John Faldi of the Wisconsin group.

LIFE
A very good version of the life system where pixels form or destroy 'children' according to set rules. This version will allow single step, walls or wrap around, and storage and retrieval of initial positions. There are several seed files for the LIFE system. When loading one of these from disk you don't need to put in the leading 'L.' Again from the Adam & Eve group.

APPLEBOWLER
An Integer BASIC program that acts as a bowling game. It uses the paddle (or joystick) button to release the ball. Submitted by Will Schneider who attributes it to Phillip Case of COM-Soft.

MONSTER COMBAT
An adventure/combat game in text from Will Schneider, source unknown. Use N, E, W, and S to move around the grid and take the challenges as they come.

HOW TO COMPRESS
The documentation for COMPRESS. This program will get rid of all wasted spaces and REM statements from Applesoft programs. It has certain limitations on the number of statements and complexity of program that it can handle. These limitations are well explained in this program. From MICRO magazine of SEPT 1982 & Will Schneider.

COMPRESS
The COMPRESS program. BRUN it and then after loading the program invoke the program with a CALL 36875.

READING LEVEL
A program to analyze sentences for readability. After typing in some text, the program will decide what reading level is needed for comprehension. If the program is really accurate, we need better reading skills in this country! This program was originally in Creative Computing in March 1981 and was submitted by Will Schneider.

DOM #28

January 1984
by Alan Peterman

The latest DOM is a combination of IAC disk #29 and some programs from our local members. The International Apple Core disk contained the BINARY UTILITY GRAPHICS system for creating graphs in an easy and straight-foward way. In addition, one of our members, Ken Ruzek, has written several

programs to further simplify the use of "BUG". Also, since I continually get requests for the updated version of the SPREADSHEET SORT (from DOM #23), the newest version is on this disk. Lastly, there are some programs to calculate investment returns, portfolio value and to run a disk for head cleaning.

BINARY UTILITY GRAPHICS (BUG)
Binary Utility Graphics is a plotting 'language' which was written by Kenneth Lind for a Toronto-based user group, the Loyal Ontario Group Interested in Computers. It is an excellant program for creating graphs in a quick and simple manner.

Anyone who has attempted to use the Apple's high-resolution screen for plotting graphs will have encountered several difficulties. One problem is that the hi-res screen, which is made up of several thousand dots (or pixels) numbering from 0 to 279 horizontally and vertically from 0 to 191, has a starting point of 0,0 located at the top left corner, whereas the 0,0 coordinate of a conventional graph is at the lower left. Converting various X- and Y-axis scales into these numbers of points may not be easy, and the need to plot various shapes (e.g., bar plots, labels, special points) is usually beyond the programming abilities of a neophytic Apple owner. Binary Utility Graphics (or BUG as it is known) was developed for the purpose of facilitating this graphing process.

BUG consists of 27 commands which serve as enhancements to Applesoft. The commands are linked into Applesoft programs using the ampersand (&) command. Commands included within BUG allow the user to plot five different types of points and lines, different bars, and to label the charts along the tic marks and at the top and bottom. There are 3 high-resolution screens which can be used for plots, although only 2 can be seen. Commands which move and swap these screens are executed rapidly, as are the commands to load and save the pictures on disk. The type of font incorporated into the chart's labels can be defined by the user, and any hi-res character set which is compatible with the DOS TOOL KIT from Apple Computer Inc. will work properly.

The system consists of a machine language program "BUG" which may be BRUN. For ease of use an Applesoft program "BUG HELLO" will BRUN the binary file and allow loading of special character fonts, 5 of which are included on the disk. Also there are 5 DEMO programs to show the use of the BUG system and an INSTRUCTIONS program to print out the extensive documentation which is included on the disk as text files. The text files are standard DOS files which may be read into a word processor if desired. In addition there are several programs written by Ken Ruzek to allow menu driven graphing and macro keys to simplify the use of the system. These programs, as well as the other programs from the Mini'app'les members, are described below:

BUGMENU
A program by Ken Ruzek to let you have a menu to create graphs from the "BUG" system. It allows easy menu driven graphing. A CTRL(G) will exit from most of the functions.

KEYMAC
A binary program submitted by Ken Ruzek to work with "BUGMAC" to create a set of macros for the "BUG" system. With this macro capability you can enter an ESC B to bar plot instead of the "& BPLOT" COMMAND.

BUGMAC
The rest of the macro sytem from Ken Ruzek. To start these programs all one need do is "EXEC DO BUGMAC". For a complete list of the macro commands run the program "BUGMAC MACRO DEF'S".

BUGMAC MACRO DEF'S
A program to display the macros in the "BUGMAC" system. It can print on any standard printer in SLOT 1.

DO BUGMAC
An EXEC file for the "BUGMAC" macro system. To start the BUGMAC system first type "BRUN BUG (c/r)" then "EXEC DO BUGMAC (c/r)".

SSORT
The improved spreadsheet sort. It now allows negative numbers and will load DOS onto the RAM card in 64K machines. By Richard H. Peterson.

DICK'S HEAD CLEANER
A program submitted by Dick Marchiafava that will run a drive to spin a head cleaning disk.

QTRLY/ANNUAL RETURN
A program to calculate quarterly and annual returns on a portfolio of investments. It is limited in scope but could be expanded by replicating its code or preferably by setting up subroutines for many of the sections. By Tom Alexander.

LT/ST GAIN/LOSS
A program to analyze long and short term gains and losses. The program produces a summary of the long and short term gains for analyzing the taxable status. It also can be expanded as needed. Also by Tom Alexander.

MARKET VALUE
A program to generate current market value of a portfolio. By Tom Alexander.

DOM #29

April 1984
by Alan Peterman

This Disk of the Month is designed as a support disk for spreadsheet users who wish to prepare their 1983 income tax return using VisiCalc (tm), or THE Spreadsheet (tm) version 1 or 2. It also contains Applewriter II files to support the two most popular printers in some rather difficult configurations. This DOM has only one program, other than the introductory programs, which will compute many of the 1983 tax results for users who do not have any of the spreadsheets.

The program, TAX.83, written by Sam Fine, represents his latest version of a homegrown and very useful program to calculate taxes due for both the Federal and State returns. It is in Applesoft and uses the files READAT and SCREENDUMP.

The DOM has three files, TAX MODEL.VC, TAX MODEL.SS1, and TAX MODEL.SS2, which are templates.

They were created by Arsen Darnay and INCLUDE the State calculations. To use these files it is recommended that you peruse the newsletter articles and test the results against simple problems before betting the IRS that the results are perfect. Neither the club nor the Authors can take any responsibility as to the accuracy of any part of these tax models or programs. John Hansen should be credited with transforming the Spreadsheet template into VisiCalc format (TAX MODEL.VC) and Dan Buchler did some editing on THE Spreadsheet version 1 (TAX MODEL.SS1).

The rest of this disk is devoted to Applewriter II files that create and explain the use of glossary files. The two files, EPSON1 and PROWRITER1, are loaded into Applewriter II and allow easy access to printer formatting, type style, etc. Steve George devised this system for the Epson printers and Chuck Boody rewrote the Glossary file and documentation for the Prowriters. To use the information files once Applewriter II is loaded, insert this disk (or preferably a copy) and type "CTRL P" to get to print command, then type "do epson help <c/r>", or if desired "do prowriter help". This use of the WPL execution file will lead you through documentation that should help you to understand how the glossary file can be used to make accessing the printer easier. For those of you who are interested, this article is also included on the DOM and may be displayed with the program VIEW TEXT. This is the same program that displayed information about the mini-assembler on DOM #25. It can be used to display almost any sequential text file by modifying the names in line 110. Alternately, an input routine could be added to ask for the name of the file to be displayed.

DOM #30

May 1984
by Steve George

DOM #30 is a compilation of programs submitted by the members of the Green Mountain Apple Club (GMAC) via the International Apple Core (IAC). Most of the programs appear exactly as we received them; however, a few have had very minor changes made to them. The minor changes include things like: resetting the Applesoft pointers after exiting from a hires drawing routine, etc.

And now, on to the specifics!! The GMAC HELLO program is a nicely executed hires animation (automatically RUN when the disk is booted). SUPERDRAW continues the hires theme and is a program for creating and editing hires pictures. Initially you can load in a hires pic or start-off with an empty palette. Color choices include the standard ones: white, black (erase), violet, green, orange, and blue. Modes of drawing include: sketch (like an Etch-a-sketch), line, moveshape, paint, type, and edit. Input is through paddles or joystick, although a Koala-type pad should work very nicely. One thing that looks especially promising is the ability to type onto a saved hires business chart. From the menu you can then save your composite graphic, complete with titles. Further details are available on disk.

ALPHANUMERICS is an interactive demonstration of how you can type directly to the hires screen. <Esc> is used to toggle between upper and lower case lettering.

CHARACTER CODE is an instructional program which shows you how to create your own characters to be used when printing to the hires screen (as in ALPHANUMERICS above).

Illustrating the technique of moving a program up in memory from its normal location is SCREEN 2. The purpose here is to reserve some room for additional "text pages" which could be used as Help screens for a program. Designed for use with Applewriter 1.1 files. Add this method to your own programming if you wish.

Do I hear $1,000,000 ?? You just might if you get involved with AUCTION. This program allows you to keep track of legitimate bidders, their bids, and payments received. Specifics on the program are documented on disk. Another file, AUCTIONSTARTOVER appears to be an emergency re-start (use with Caution). A short subroutine which Auction uses is TRAP RESET KEY and could easily be adapted for your programs. It "traps" the reset key and causes the program in memory to re-run.

A little trav'lin' music if you please! SOFTWARS is an Applesoft plus machine language program to create the Star Wars theme music. Thorough documentation of pitches and timing is within the program's body.

DISK COMMAND EDITOR lets you change a portion of the DOS verbiage we've all grown to love so dearly. Such as DISK VOLUME 254 and * for a locked file. Now you can make them "GAME DISK #" and # for locked! Changes are memory resident until the next boot. If you'd like to keep your changes, exit the program and INITialize a blank disk with your altered DOS. Finally, it lists the DOS Commands to screen or printer.

CAPECAN'APPLE' is a lores game that teaches about orbiting a space vehicle. You input velocity and orbit height. With the right combinations you will achieve orbit. Too little thrust - you crash 'n burn. Too much - you escape the pull of the Earth.

Bees in your bonnet? Got bats in your belfry? SPELLING BEE III is a "flashcard" format to learning the correct spelling of words. You can make up your own list to teach/test others. (Or if you're really BATTY, input them YOURSELF and then test YOURSELF!!) The file 'OFTEN MISSPELLED' includes some real humdingers! Go for it.

MISTER MATH 3 appears deceptively simple! You choose the arithmetic function (+,-,*,/) and the difficulty level (easy, hard, very hard) and the number of problems. If you choose division and very hard, some of the problems are real sticklers to do in your head. Appropriately titled, 'cuz I MIST several of 'em.

Ever had to really jam on the brakes? (Ok ok, I hear you, you put jam on bread. Hrumph!) But seriously, STOP III lets you input a rate-of-travel with paddles/joystick and then measures your reaction time to a semaphore which changes from green to red. It then tells you how long that took, how far you would have traveled at your designated speed, and how much

farther before you actually stop (and on 3 different road-surface conditions)!!

Eat EAT EEAATT!!! Tired of all those diet programs? Want to indulge? Well here's a data base program dedicated to food!

RECIPE FILE X allows you to selectively retrieve recipes, add new ones and generally pig out! Screen displays are very nicely done and the Help file sure comes in handy. Output to screen or printer.

There you have it: a full smorgasbord of programs on DOM #30!

DOM #31

October 1984
by Pete Gilles

Tom Alexander's contributions make up over half of DOM #31. The DOM editor says "THANK YOU, TOM ALEXANDER" Tom is not only a prolific program developer, he is also a good documentor. His group of programs entitled SECURITIES LEDGER came complete with a text file of documentation.

PRINT LEDGER DOC
LEDGER DOC
Before running the following programs: LEDGER, PORTFOLIO, MARKET, SOLD, STOCKS, or SALES, please run the file PRINT LEDGER DOC. This short program will print the text file LEDGER DOC on any forty column printer. You may, of course, access the text file LEDGER DOC with a word processor such as Applewriter if you wish.

LEDGER
PORTFOLIO
SECURITIES LEDGER is a group of menu driven programs which will allow you to record the purchase, current status and sale of common stock in a portfolio. The program LEDGER is the starter program. It will load and execute the other files for you. The file PORTFOLIO will allow you to update your personal portfolio with purchases and sales.

MARKET
SOLD
STOCKS
SALES
The file MARKET will produce a report on the market value of your portfolio and the file SOLD will generate a capital gains and loses report for your income taxes. These reports may be previewed on your monitor or sent to your printer. The files STOCKS and SALES provide some sample data to get you started with the SECURITIES LEDGER programs. Tom informs me that these programs reflect the latest changes in the tax law concerning long term capital gains.

PHONE BOOK
Another Tom Alexander program which will allow you to build your own telephone directory. The program creates a text file

called DIRECTORY which will grow as you enter names, addresses and phone numbers. If you are going to use this program for a very large phone book, you will want to move the program to another disk with more free space.

LONGEST DECIMAL

The last Tom ALexander program on this DOM contains a demonstration of a set of routines which will allow you to align the decimal point when you are printing out columns of numbers in an Applesoft program. The routines will search a group of numbers and determine which number has the greatest number of digits to the right of the decimal point. Zeroes are appended to the other numbers so that the entire column is aligned by decimal point.

PRINT SCRUNCHER DOC
SCRUNCER DOC
HIRES SCREEN SCRUNCHER
HIRES.PACK
HIRES.UNPACK

This is a group of programs submitted by Steve George who received permission from the publisher of Hardcore Computist to include them on our DOMs. They will pack and unpack a HIRES page with a savings of 40 to 80 percent in disk sectors. Run the file PRINT SCRUNCHER DOC to print the text file SCRUNCHER DOC which is the docoumentation for the programs HIRES SCREEN SCRUNCHER, HIRES.PACK and HIRES.UNPACK.

PAINT DUEL

A human controlled tank vs computer controlled tank each firing paint canisters. It contains on-screen instructions. From Creative Computing submitted by Will Schneider.

QUINTI-MAZE

A 5 x 5 x 5 three-dimensional maze with HiRes graphics. It has a built-in timer. This also contains on-screen instructions. From BYTE submitted by Will Schneider.

CHORD

A computer aid to music transcription. From Creative Computing submitted by Will Schneider.

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DOM #32
Diversi-COPY (Personal Domain)
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DOM #33
November 1984
by Pete Gilles

DOM #33 comes to us from the *Northern Illinois Apple User's Group (NIAUG)* via the International Apple Core (IAC). The disk contains three hi-res games in color submitted to a contest run by NIAUG in 1983. The games were all created using a piece of software from BrOderbund called the "Arcade Machine". The games are called **Beach-Head, Westward Ho!,** and Bee Crunch. All the games require a joystick or game paddles.

There are some general instructions that apply to all the games. Strike:

(ESC) To pause/then any key to continue
(SPACE) To restart and hold hi-score
(RESET) To restart and zero hi-score
(RE-BOOT) To select another game.

The specific instructions are:

Beach-Head
You are all alone in your tank, trying to protect the beach against the landing of enemy troops. You must also watch out for the snipers that are hidden on the beach. Use the paddle to move the tank left and right and game button (0) to fire your gun. There are also unfriendly aircraft strafing the beach. I don't know if the tank can shoot the aircraft (translated that means I couldn't hit any). You have three "tank lives".

Westward Ho!
The Indians have attacked the wagon train. You, the trusty scout, have a gun and nine lives to protect the gentle settlers. Beware of the "riderless" horses because they also shoot arrows. You, however, are such a terrific shot that you can shoot the arrows out of the air. Also watch out for the large boulder on the bluff and the moving cactus. Use both game buttons to fire in either direction. There are at least two levels to this game. I have observed some inconsistency in the scoring in the game -- I seem to lose points for no apparent reason.

Bee Crunch
This can be a two player game with each player using a game paddle. Each paddle controls one of the arrows at the top or bottom of the screen which are your shooters. You gain points by killing bees or the other player. You will however LOSE points if you destroy 1) "the friendly snake", 2) "the lovable little frog" or 3) "the adorable bee hives". You have three lives to lose.

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DOM #34
February 1985
by Pete Gilles

This DOM is a collection of Apple Writer // utilities written in Apple Writer Word Processing Language (WPL). With the exception of one small file that came from the International Apple Core (IAC), this disk is the work of Tom Ostertag. And a considerable amount of work, it is. Tom has provided over 360 sectors of text arranged in about 75 WPL files. This is a nicely integrated set of utilities and

documentation. Documentation, you say? Yes right there in the form of user selectable WPL files are short descriptions of the utilities that may displayed on your monitor. Like hard copy, you say? Well, one of the utilities provided will convert WPL control characters to the form [L] so that you may print a WPL file.

How do I access these wonderful utilities? Well you begin by booting your Apple Writer //. Place the utility disk in drive two. Strike Control-P and type DO ME.FIRST,D2. If you forget to put the utility disk in drive 2, you will get an I/O Error message from Apple Writer //. Press RETURN to move from the banner page to the Main Menu.

Read through Selection 1. If you choose Selection 2., you will get the Documentation Menu.

The descriptions given below are a portion of the documentation provided for each of the utilities.

Copy Multiple Files--This utility will transfer files from one AW2E file disk to another. It will prompt you with the file name and you can choose to copy or not. (Like FID only without rebooting.)

Delete Multiple Files--This utility will delete unlocked files from a file disk. It will prompt you with the file name and you can choose to delete the file or not. (Saves time working with [O]F.)

Convert WPL Files--This utility will convert six commonly used control characters to characters that can be printed. This is a useful feature since going through a file and changing them manually can take a considerable amount of time.

Print Multiple Files--This utility will print all unlocked files on a AW2E file disk. You will NOT be prompted for the file names.

Print Multiple Copies--This utility will print multiple copies of a AW2E file. You will be prompted for the file name and drive.

Free Sectors on a Disk--This utility will determine the number of Free Sectors, Used Sectors, and files on the chosen disk. {If you plan to use this utility, make sure that your file ends with a form-feed.} You can choose to determine sectors on several disks.

Put Catalog in Memory--This utility will produce a printed copy of the chosen disk's CATALOG. You can use this feature to produce hardcopy lists for your use without having to boot each disk.

Count Words/Characters--This utility will count the number of words/characters in an AW2E file. This program is already on the AW2E Master disk. It is updated to make is easier to access. IT DOES MAKE A MESS OF THE FILE, SO SAVE IT FIRST.

Set Print to Screen Option--This utility will change the print value file (PVF) so a text file can be viewed on the screen without the fast scrolling and the [S] keystrokes to control the speed of scrolling. If the SPECIAL glossary has been loaded, [G]r will restore the default print value file, or this WPL will also.

Print an Outline--This utility is part of a set of embedded print control commands that are loaded into the document in memory from the SPECIAL glossary. This option removes the comments that are included to clarify the positioning in the document so the document is printed and saved without the comments. (Sounds like a poor-man's Think Tank)

The Main Menu also contains Selections with instructions for the installation of these utilities on your Apple Writer // disk (be sure to use a copy!); with details of creating a STARTUP program and notes on a SPECIAL glossary for an Epson FX-80. Printing out the documentation of these features is left as an exercise for the user.

As I mentioned earlier, there is only one file on this disk that did not come from Tom Ostertag. It was supplied by the IAC. It will correct a bug in Apple Writer //E when used on an Apple //c. Take a look at file APPLEWRITER//E PATCH if you are having this problem.

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DOM #35

(OOPS! We skipped a #)

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DOM #36

June 1985
by Steve George

This disk is made up of a variety of financial and investment-type programs. The majority are self-contained, individual programs to calculate a specific financial problem. About one-half of the disk is comprised of programs contributed to the group by Tom Alexander. His integrated programs are all connected through the main module DIVIDEND RECORDER. Tom's explanation is better than my own, and follows:

DIVIDEND RECORDER is a menu driven filing program which records all dividends received from securities.

The code is divided into five separate programs. These are named DIVIDEND PREFACE, DIVIDEND RECORDER, DIVIDEND RECORD, DIVIDEND REPORTS, AND DIVIDEND EDITOR. The random-access text file generated by DIVIDEND RECORDER is named DIVIDEND FILE.

The Main Menu consists of eight categories for the operator to select from. The Main Menu and the sub-menus are:

```
1. Index of Securities on File
2. Add New Securities
3. Record a Dividend
4. Review a Record
```

```
        1. Display Report on Monitor
        2. Print Report on Printer
        3. Review Another Record
        4. Return to Main Menu
     5. Portfolio Reports
        1. Review Portfolio Yield
             1. Display Report on Monitor
             2. Print Report on Printer
             3. Return to Reports Menu
             4. Quit
        2. Review Total Dividends
             1. Display Report on Monitor
             2. Print Report on Printer
             3. Return to Reports Menu
             4. Quit
        3. Return to Main Menu
        4. Quit
     6. Edit a Record
     7. Quit
     8. Initialize File
```

DIVIDEND RECORDER is begun by RUNning DIVIDEND
PREFACE, the starter program. This program allows the
operator to choose between a review of operating instructions
or to go directly to the Main Menu on the DIVIDEND RECORD
program, which is loaded and run by the DIVIDEND PREFACE
program.

Because the accurracy of the yields and total dividend for each
stock is dependent on the integrity of each of the items entered
by the operator, a prompt will ask if the data are correct as
entered in both option 2 (Add New Security), and option 3
(Record a Dividend).

As received, the **DIVIDEND FILE** contains some sample data
which will show you how the data you enter will be displayed.
The sample data for The Wrongcost Inc was purposefully
entered incorrectly to show how the DIVIDEND EDITOR
functions. The Wrongcost Inc's second dividend yield was
recorded as 25%! There is something obviously wrong. But
what? The only way to find out is to print the report on
option 4 (Review a Record). This will show that the cost of
the shares paid was $400, not $4000 as it should have been
recorded. The situation is remedied by selecting option 6 (Edit
a Record) where the error can be corrected. Try it. It works.

You are encouraged to review the instructions on the
DIVIDEND PREFACE program. The correct syntax and
other information is included.

The balance of this disk was compiled from a variety of
sources. The files are listed below:

MARKET EVALUATOR PAK
TAX DEPRECIATION & CREDIT
TAX SHELTERED ANNUITIES
FIXED MTY INVSTMT ANALYSIS
PAYROLL
HOME INVENTORY

Market Evaluator Pak - consists of six programs:
Treasury Bill Evaluation
Stock Portfolio Valuation
Put & Call Option Value

Call Option ROI
ROI on an Option Straddle
After Tax Yield on a Bond

Tax Depreciation & Credit - calculates investment
credits/depreciation allowances over the life of new or used
equipment. Also maximum short term or long (12 or 25 years)
depreciation. Salvage value, too. Research and Development or
normal business use.

Tax Sheltered Annuities - TSA's based upon earnings,
marital status, etc.

Fixed Mty Invstmt Analysis - <Careful: assumes printer
is in slot 1 and is ON!

Payroll - creates text files using the employee's name in the
file name. Each file can be maniulated from the main menu
which is displayed below:

Add employees
Correct payroll period
Calculate wages
Payroll history to date w totals
Payroll totals to date
Correct employee data

Finally, the last program on this disk is
HOME.INVENTORY. This program gives you a convenient
means for maintaining an inventory list of possessions with
important data saved to disk. Purchase date, value, etc make
this a handy pgm.

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DOM #37

August 1985
by Steve George

The basis of this disk comes from our own member *Matt Pharr* .
Matt's Disk Modifier program will let you access any part of a
standard DOS 3.3 disk. You can alter the disk at the byte level
on any track or sector. Full documentation is on disk.

The next major utility is FAST ZAP by *Shawn Stanley*. Works
similarly to Matt's utility. On screen prompts guide the way.
(First letter of command name usually works, and <ESC> will
back you out of most precarious situations.

The remaining utilities are mainly from Call -APPLE and Apple
Assembly Lines. They are ones that I found interesting and
use with some regularity, so I hope you enjoy them too. Most
programs have directions within the body. Separate 'doc' is
provided where necessary. A DISK SUMMARY is a short
explanation of each program in a text file on disk, and
follows:

A DISK SUMMARY
Z PROG.LIST

From the fellow who wrote the infamous 'CATALOG MANAGEMENT' we now have A DISK SUMMARY. Provides a short description of each program on the disk. Also, it allows easy accessing of the files for locking, unlocking, running, etc. By Jim Pfeiffer of NIAUG.

CAT ARRANGE EDIT DOC
CAT ARRANGE/EDIT NORMAL DOS
CAT ARRANGE/EDIT NORMAL DOS.S
CAT ARRANGE/EDIT RAMCRD DOS
CAT ARRANGE/EDIT RAMCRD DOS.S
The 'DOC' file provides the details for moving/editing catalog filenames. Editing includes the use of inverse; flashing; even lowercase! View this file with a word processor or alter DOS with 'RUN FILEDUMP CMD POKE' (described below). Then enter 'FILEDUMP CAT ARRANGE EDIT DOC'. The actual files to arrange/edit the CATALOG are from Bob Sander-Cedarlof's publication 'APPLE ASSEMBLY LINES'. That is the support publication for Bob's excellent S-C Macro Assembler. The 'NormalDOS' in the file names simply refers to the DOS you normally get when you boot a DOM or probably most of the disks you have INITed for yourself. 'Ramcrd DOS' refers to a DOS which has been moved up in memory. The primary advantage is that you then have more room for your program. Examples of a moved-DOS are GPLE's DOS MOVER, Beagle Bros. HIDOS, etc. Files with the '.S' appended to them indicate that they are source code (in this case in Big Mac/MERLIN format). The final product is a compilation of efforts by several individuals over the period of several issues of AAL. They include: Bill Morgan, D Barkovitch, Chuck Welman, & Bill Collins. Mods to allow use of the up/down arrows and lowercase inputs by Steve George.

CONV RANDOM FILES DOS2PRODOS
CONV RND TO SEQ (DOS 3.3)
CONV.SEQ.TO.RND (PRODOS)
They say you can't CONVERT random access files from DOS to ProDOS. 'They' lied!! Actually you can't directly but you can if you follow the instructions in the 'DOS2PRODOS' file. CONV RND TO SEQ will convert your random access DOS 3.3 file into one which is a sequential file also under the DOS format. Requires user input for such things as number of records; number of fields; etc. CONV.SEQ.TO.RND: After converting this file to ProDOS; use it to re-create your random access file from the sequential file created (above). Requires user input re number of records; num fields per record; etc. It was a tough fight but we won; I think. By Tom Vanderpool of The Apple Bits.

DISK FREE SPACE
Checks for DOS version, VOLUME #, total sectors, free & used sectors. Prints out the actual number of characters the free and used sectors contain too. By Craig Copley.

DISK SPACE (EXEC)
'EXEC' to see free sectors on the disk holding this program. Move it to the disk where you'll want 'FREE SECTORS' first. A pain but it doesn't disturb programs in memory. Authors: M Pump, V Golding, C Welman, V & A Floeter, mod/EXEC S George.

DISK MODIFIER
DISK MODIFIER DOC
DISK MODIFIER.S

Matt's program to allow altering your DOS 3.3 disks. 'DOC' is the detailed documentation on using DISK MODIFIER. Matt also included a short tutorial for those of us who need guidance. Basically DISK MODIFIER allows you to change any/all data on a disk. Search for strings too. The '.S' file is the source code in BIG MAC/MERLIN format. Load this file into your assembler to see how Matt created his disk utility. By Matt Pharr.

DISK MONITOR PATCH
Prints a continuously updated display of the track/sector your drive is (trying) to access. Nice utility for seeing where problems may be occurring. By WAP844 of Washington Apple Pi.

DISK SORT
RWTSDISK
Allows sorting catalog entries alphabetically; by type; and/or by length. By Ted Cohn , mods by C Boody.

DISK VERIFY
Calls DOS's RWTS (Read/Write Track & Sector) subroutine trying to read all disk sectors & prints the status on screen. If bad sectors are found you may update the VTOC (Volume Table Of Contents) locking out bad ones. [Use a different disk!!] By Roger Chaffee in Call -APPLE 6/82.

DOM 37 LOGO.C
A compressed HIRES screen created the hard way. Base pic from IAC. MN Pic made with paddles and Nibble's 'APPLE PAINTBOX'. Text added with 'HIGHER TEXT' and finally compressed with Hardcore COMPUTIST's compression routine. (Whew!) By S George.

FAST B/LOAD
FAST B/LOAD INSTALLER
FAST B/LOAD.S
From 'APPLE ASSEMBLY LINES' a DOS patch which speeds up the LOADing or BLOADing of files. The 'Installer' file is the easy way to use Bob's DOS patch! Lastly, the source code to see just how Bob Sander-Cedarlof does these neat things.

FAST ZAP
Read/write individual tracks sectors & bytes. Transfer; Duplicate; Zero-out sectors. On screen prompts aide in its usage. The <ESC> key backs out of most precarious situations. Shawn gave Mini'app'les permission to use this nice utility. By Shawn P. Stanley in the Twin Cities.

FILEDUMP CMD POKE
RUN this to alter DOS and have a new command available -> FILEDUMP. The command format is 'FILEDUMP PROGRAM' where 'PROGRAM' is any sequential text file. To send a text file to the printer initialize the printer first with a PR#1. By Reynolds/Golding in Call -APPLE 6/82.

HIRES.UNPACK
Permission to use on Mini'app'les disks granted by 'Hardcore COMPUTIST' mag. Used to de-compress the HIRES logo at boot up. By Robb Canfield of 'Hardcore COMPUTIST'.

MINNESOTA BLUES
MN BLUES READ
From the land of 10000 lakes here's a real hazardous waste! Have the tornados got you down Binky? Has the humidity put

a droop in your drawers? Have the mosquitoes carried off your mother-in-law? Well cheer-up! Stick out your chin! Hold your head up high! You're a Minnesotan!!

A set of randomly-accessed phrases relating to the "Minnesota Experience". By S George.

PRINT CATALOG W CTRL CHARS
Eliminates the funny things that control characters do when they're imbedded in file names or within PRINT and REMs. (Such as the Mini'app'les header files!) By Darrel Dunmire.

PRINT TO DISK
PRINT TO DISK.S
Redirects output of some word processors like 'APPLE PIE' and some assemblers like 'BIG MAC' so that instead of printing on your printer it 'prints' to disk. Kind of like a softcopy. For use with BIG MAC you must alter the conditional assembly. Also don't use 'PAG' statements. Slot drive & volume commands not supported. Instead use BIG MAC's 'EXEC' mode to alter these parameters. By Vince Giambalvo in Call -APPLE 8/82.

REMSAVER
REMSAVER.S
Pulls 'REM's out of Applesoft programs & saves them to a textfile. Load your program and then 'BRUN REMSAVER'. It prompts for a filename to save them under & appends '.REMS' to the filename. Can be 'EXEC'ed back in to program if desired. Source code in BIG MAC format. By Eric Lambrecht in Call -APPLE 9/82.

_____

DOM #38

November 1985
by Steve George

This is a very nice introduction to the world of programming your Apple. Two tutorials are included: one on the BASIC language and the other on machine language, using the miniassembler which is an integral part of the Integer BASIC language. This language is provided on disk for all owners of][+, //e & c's. Two programs deal with the use of 'conventions' when writing code.

The full CATALOG listing of programs on DOM #38 follows:

A DISK SUMMARY
BASIC TUTORIAL
BASIC PROGRAMMING 1
BASIC PROGRAMMING 2
BASIC PROGRAMMING 3
BASIC PROGRAMMING 4
CONVENTIONS
DOM 38 LOGO.C
HIRES.UNPACK
INTBASIC
LOADER.OBJ0
MICRO 6502 SIMULATION

MINI ASSEMBLER TUTORIAL
MINI'APP'LES
SWEET 16 DISASSEMBLER
TOP DOWN PROGRAMMING
Z PROG.LIST

(See also, DOM #11 for an excellent Applesoft Tutorial)

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5 1/4"

IAC Disks

IAC #28

September 1985
by Steve George

Pinball Games.
Really now, what needs to be said? There are 4 (count 'em 4!!) great pinball games on this disk. As the startup screen indicates, these FAST ACTION games were created using Pinball Construction Set by Bill Budge. Primary input for the games is through the 'buttons' of a joystick, paddles, Koala Pad, or, if you have a //e, the Open/Closed Apple keys! It helps to use a paddle or joystick type of input device, because, the amount of pull on the plunger may be varied with these devices. If you use the O-A and C-A keys, the plunger is always pulled all the way out.

...pardon the delay, I had to go and play each of them several times just to be sure of my facts (I conveniently lost my notes so I just HAD to spend the last 2 hr. 50 min. checking these out!) The four games are titled: The Maxx Machine, Flip It, Maxx's Madness, and Super Blast. Though I have yet to 'tilt' the machine, here are my explanations/impressions of each of the 4 games:

THE MAXX MACHINE
All of the pop bumpers (aka jet bumpers) are invisible until they're hit! Therefore, luck is a major factor. Fast-action flippers are your only means of keeping the ball from draining. The tilt of the play surface makes the ball react very realistically to gravity.

FLIP IT
Play is on 2 'levels' with a pair of flippers guarding the drain on each. Spinners/roll-overs too. All bumpers are visible in this and the remaining 2 games.

MAXX'S MADNESS
The play surface is on 3 levels with a total of 8 flippers at your disposal (drain?). Spinners and chutes too. The flippers have an "old game" feel because they are slower to react to your pushing them. Therefore, you'd better plan your moves slightly in advance of the action you desire.

SUPER BLAST

3 levels, 5 flippers, 2 chutes, spinners... One of the chutes catches your ball and holds it. At that time, a new ball is readied for play. When 3 balls have been 'captured', they're all let loose at once! THAT'S ARCADE ACTION!!

Features common to all games: Up to four players can play (use space bar to select number of players before starting a game). Games are started by pressing one of the flippers. 5 balls per player. Bonus points awarded. All are playable on a monochrome monitor, but for best results, use color.

IAC #35

September 1985
by Steve George

BUILD A PROGRAM
As stated in the program's documentation, this disk will create the shell of a program you then use as the basis of a program you're writing. The shell it creates will contain standard pre-coded variables, a date routine, standard coding for clearing the screen, positioning the cursor, and centering displays. Also included are routines which will aid in 'inputting' information from the user of your program such as showing the length and then checking for maximum allowable length.

When using the date input routine, a user will enter today's date in the format of MM-DD-YR and you will be given (automatically) the following additional information: day-of-week, Julian day-of-year, and whether its a leap year or not!

These routines will also generate the coding needed to build and maintain an indexed sequential file. An indexed sequential file is one that can be accessed either randomly or sequentially. Each record of the file always contains 2 fields that are generated by the system: Record status and Records key. The remaining fields are user defined and restricted to 25 fields in total. The routines will let you create, read, write, re-write, delete, read-next and maintain the files. Any coding needed to access the records is totally up to you.

Whenever you have a shell program created for you in Applesoft, you must be sure not to re-use the variables accessed by the shell routines. The primary restriction in this case is to avoid the use of Y or Z as the prefix to any data names. Also, do not renumber the I/O portion of the program.

The best way to learn this system is to look at the coding in the file 'Inventory-demo' and then give it a try. On-disk documentation provides more details.

IAC #39

July 1985
by Steve George

{WHAT?? you say, last month was 45 and this month's is 39?? Well, 'tis true. About a year ago our membership in IAC lapsed and we missed a few disks. Now that a few of them are trickling in (and seeing that 2 disks the IAC released this year alone had been previously issued by Mini'app'les as DOMs) we are going to start to fill in the gaps. Anyhooo that's the reason ...}

IAC #39 is called The Graphics Disk by its creators: Apple User Group Europe. AUGE, and more specifically Guenther Reich and Frank Pohlemann, have put together some terrific graphic demos and utilities. The major programs are: HIRES ROUTINES, VSCROLL, LOHI CONVERT, THE LORES WIZARD, SUPER LORES GRAPHICS, MULTI MOVE, and FAST DISPLAY / SMOOTH DISPLAY.

HIRES ROUTINES
This program is a collection of sophisticated graphic utilities that manipulate whole or parts of whole Apple Hires screens. The main menu offers a variety of choices including: 1) View Hires Screen 1 2 or 3 (yes, effectively there IS a 3rd screen!), Switch Screens 1 & 2, Swap 1-2 2-3, Enlarge Screen Area ,Stretch Screen Area, Shrink Picture, One-way Shrink (Horiz or Vert), etc. As you can see, this one program is very extensive and could be an entire article. This is a good one, and VERY fast.

VSCROLL
VSCROLL produces a machine language routine that may be used from your own programs. The final effect is that one Hires screen appears to move 'over' another. This routine is used in the impressive HELLO program by AUGE.

LOHI CONVERT
This gives you the possibility to convert Lores pictures into Hires ones. This was written primarily to be able to dump Lores pics to the printer.

THE LORES WIZARD
This program lets you design Lores pictures with ease. You can plot points by selected Color, Fill Screen, Frame, Box, Triangle, Paint, Window, etc.

SUPER LORES GRAPHICS
This lets you scroll wider than the normal 40x40 Lores screen. You end up with an area of 120x144 with a portion in the 'view port' at one time. PLOT and SCRN functions are supported. The demo program for this one is really nice.

MULTI MOVE
This nice program enables you to move the TEXT screen or a Lores pic in all four directions. This can provide some interesting ways of clearing your Text or Lores screen.

FAST DISPLAY / SMOOTH DISPLAY

And finally, this program transfers up to 16 Lores or TEXT pages from higher memory into the normal text/lores screen for viewing. These could be great for a 'Help' menu.

IAC #44

May 1985
by Steve George

The origins of this disk are with the Apple Bits User Group (ABUG). Several other files were added by the IAC including the instructions for FILE.CABINET. As with all ProDOS disks, they require a volume name, and this one is appropriately called "/IAC.44".

PRODOS
This is the operating system file. It loads in when you boot the disk, checks for a 'genuine Apple', the 'official' clock card, sets the default volume name to "/IAC.44", etc.

BASIC.SYSTEM
This SYS file allows us to use Applesoft BASIC.

STARTUP
This program runs when you boot a disk and displays the ABUG logo, then it calls the program "INFO" in the "DEMOS" subdirectory. Uses the binary file titled STARTUP.OBJ.

PICTURES
TEXT
DEMOS
PROGRAMS
Each of these is a sub-directory file. They hold the names of the programs available 'one level deeper' in the ProDOS directory. To see their contents, you can type 'CAT PICTURES' or 'CAT TEXT' etc.

TYPE.CMD
A command that will let you look at your ProDOS files. It will print the file's contents to the screen as fast as the system allows, or to your printer (a great way to get a quick list of 'instructions'). You may pause the output with a Ctrl-S and/or exit the listing early with the ESC key. While you can 'view' just about any type of file, TXT files are the most meaningful. This command will see LOTS of use, so you might like to transfer it to other disks. To have the command available, enter "- PROGRAMS/TYPE.CMD".

FILE.CABINET
A database program that has been converted to ProDOS. Use the "TYPE" command to read the instructions file (here's one where you might like to redirect the output to your printer). File Cabinet in its DOS 3.3 form(s) has enjoyed a long life. It is probably the first database program new users encounter, and while limited, will give you a good feel for what you'd like an EXPENSIVE database to do. For some of you, it may be the only DB you'll ever need.

TYPE.DEMO

A demo and instructions for the "TYPE command. Get to this one with "RUN DEMOS/TYPE.DEMO"

SHOW.SPEED
This file probably won't impress you if you've always used ProDOS, but for DOS users, it really illustrates the relative speed advantages of ProDOS over DOS. (How quickly would compressed pics load and display under ProDOS, hmmmm, some day...)

MARATHON
A program that will let you see the Mousegraphics set if you have a //c, or presumably an 'upgraded' //e or an e just fallen from the tree. This program is a continuous loop, so when you need to stop it, hit Ctrl-C.

MARATHON.INFO
(The back row gets three guesses what this is about). Again, use the "TYPE" command to read the instructions/info.

PRODOS.STARTUP
A demo and instructions for a startup program that makes up for not having a clock card (especially for owners of Apple //c's who cannot set the date under the 'FILER' program on the /USERS.DISK). See STARTUP.INFO for details.

NO.DOS
This text file tells you how to salvage a program when you have forgotten to boot DOS. It happens to us all, so look this over so you won't be TOTALLY frustrated when it happens to you.

IAC #45

June 1985
by Steve George

Jumping in with both joysticks and track-balls, we 'thoroughly' tested this IAC disk contributed by Joe Holt of CA. Joe includes many machine language routines for you to view and possibly incorporate into your own programs. But, the disk's highlight is his version of DEFENDER!

DEFENDER
It requires a joystick (or two CLOSE friends with paddles), 64k of memory, and is run when the disk is booted. Button 0 fires your laser (holding it down gives repeating fire), and Button 1 fires a smart bomb (3 to start with). Pushing both Buttons jumps you into Hyperspace for a quick exit from peril (where you return is as unpredictable as the original arcade game!) Excellent graphics, sound on/off (Ctrl-S), game pause (Esc), and saving high scores to disk, too.

Access to the individual ml routines on the disk is easiest gained by simply booting another DOS 3.3 disk and then CATALOGing this disk.

Full instructions are on disk.

IAC #46

August 1985
by Steve George

B.L.U. stands for BINARY LINKING UTILITY which was written by Ken Lind. It's purpose is to facilitate the linking of Ampersand (&) routines, which are written in binary or machine language, to Applesoft BASIC programs. Two methods of using binary files are included: Ampersand Library and Routine Library. The Ampersand Library mode works just fine, the Routine section has a few problems. (Routine Lib works for relocating the code, but won't 'link' routines together.) So, use the Ampersand Library mode!

In essence, this disk eases the pain involved when you would like to use more than one '&' routine in your program. Whenever Applesoft encounters an '&', it jumps to the machine language program that the '&' points to. If you have 2 or more you'd like to use, you've got a problem. Enter BLU. This allows you to link together several '&' routines into a 'library' which you create. Follow the example in the INSTRUCTIONS file on disk for a full explanation. However, when they tell you to BLOAD your library, BRUN it instead!

Thanks to Richard Peterson, the IAC disk is complemented with several demos which actually work (see those with the RHP suffix). See also the COMMENTS file for a brief explanation of each demo.

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5 1/4"

Personal

Domain

Software

Personal Domain Software - This is just another name for 'shareware', 'risk-free' software, etc. What it means to you is that some very nice programs are available to you to try-before-you-buy. When you receive the software, the author will usually include on-screen instructions on how to become a registered, legal user of the package. If you like the package and continue to use the softare, you are morally bound to remit the requested fee. Please do so, or reFORMAT the disk. Your honesty in these matters will help ensure a continued supply of good Personal Domain Software.

Diversi-DOS©

Copyright 1983 by Diversified Software Research
Issued Feb 1983 by Al Peterman as DOM #18
Updated Aug 1985 by Steve George
Requested fee: $30.00

This is one of the first disks to be issued as Personal Domain. Hats off to Bill for his novel approach to distribution and keeping software prices reasonable. Numerous enhancements to the original software have been added over the years.

Diversi-DOS is a modification of the Disk Operating System that has many features, which are fully covered in the extensive documentation that comes as part of the program disk. The heart (or at least the start) is a series of changes that speed up DOS operations including LOAD, WRITE and text file access. There are also some options to add a keyboard type-ahead buffer and even a print buffer using a RAM card. In addition there are options to load DOS into the RAM card and free up 10K more memory. As an editorial note, I am beginning to see more and more answers to the question of why one should have a RAM card and with the Revision E computer being 64K it seems that this will become the

"standard" configuration. There are several unique things about Diversi-DOS including the fact that it is a commercial program that is distributed free and licensed by sending in the $25 fee if you decide you like it and want to use it legally. The creator, Bill Basham, should be credited with an unusual marketing scheme. There are a few things that you lose with this system, the main ones being that the DOS error messages will print only a code number instead of the full message, and if you use the keyboard buffer some PEEKS that poll the keyboard will not work.

Fire Organ ©

Copyright 1981 by Vagabondo Enterprises
Issued Feb 1983 by Al Peterman as DOM #19
Updated Aug 1985 by Steve George
Requested fee: $0 (yep, zero!)

The original version worked well (pre-//ec), but the documentation was screwey on a //e and //c. We received an updated version (only the doc handling changed) from author Brooke Boering in August 1985.

Fire Organ is an exciting graphics/sound system that is written in a custom language called CEEMAC. This disk is also a promotion (of a sort) by its creator, Brooke W. Boering. The disk will present you with a different graphic display for nearly any key you care to try pressing and most of these displays can be modified by the arrow keys or the game paddles (joystick). Most of these graphics should be viewed on a color screen for the full effect to be seen. Also on the disk are several binary files that are accessible with the BRUN commands to show you what the designers of the graphics had in mind when they wrote their 'scores'. After booting this disk, it is a good idea to hit the 'ESC' key to get the instructions.

Diversi-COPY©

Copyright 1984 by Diversified Software Research
Issued Oct 1984 Steve George
Released as DOM #32
Updated Aug 1985 by Steve George
Requested fee: $30.00

This is another wonderful program by Bill Basham. Through a unique marketing technique, you can receive this very useful utility for only the price of a DOM! To legally use it however, you are requested to send $30 to DSR. The honor-system of paying for what you use worked well for the previous DSR product: Diversi-DOS. Timely updates to Diversi-COPY have been made: it now makes use of the extended memory of a //e and //c. Registered users are notified of updates and may purchase them for $5 (reasonable, no?). Bill is one of few who really DO provide this service.

Diversi-COPY has two primary sections: Disk copying and disk formatting. You can copy any unprotected DOS 3.3, ProDOS, Apple CP/M, or Apple Pascal disk. The disk you are copying to (destination disk) need not be previously formatted. It works with either one or two drives. If you have enough RAM memory, you can mass-produce backups so that the source disk needs to be read only once. (Diversi-COPY compresses information, so if the source disk is less than full, less memory is required.) It does an automatic verification of the copied information to assure accuracy at the byte-level. The destination drive's speed is continuously displayed and updated during writing to help isolate any copying problems. It will also copy 40-track disks!

The other primary option is to simply format empty "data" disks. Again, these can be in any of the four operating systems listed above. These disks will not contain the actual operating system, so they will not boot. The advantage to this is that you gain additional disk space by sacrificing the op. sys. For example, an additional 32 sectors are available under DOS 3.3 format.

Diversi-COPY is menu-driven and easy to use. There is also an on-screen instruction section containing further information and detailed explanations of each function.

With the permission of the author, I have captured the documentation portion of the binary file DCOPY and saved it to disk as DCOPY.TEXT. That way, those of you who want formatted hardcopy can load it into your word processor for manipulation prior to printing. Permission was also obtained (though Bill Basham said it wasn't necessary) to put our Mini'app'les "greeting" prior to his programs. (Better safe than sorry!)

A "bonus", though a good program in its own right, is included: Dogfight II. It is found and run from within the Diversi-COPY main menu. This is an arcade-style shoot-'em-up where you battle for control of the skies. Use keyboard, paddles, joystick, or Joyport-adapted Atari controllers. Play options include easy/hard, one/two/multi-player team play, etc. Full instructions are available on-screen from the program, or you can use those in the textfile DOGFIGHT.TEXT (they're the same).

_____

One-Key
DOS ©

**Copyright 1983 by Vagabondo Enterprises
Issued May 1985 by Steve George**
Requested fee: $9.00

This is a personal domain disk where you are requested to pay the author a fee if you continue to use the disk. The fee for this one is extremely low -- $9. I think that just about everyone who tries out the disk will get 'hooked' on its ease of use and will GLADLY mail in the Nine dollars. If you include a stamped self-addressed envelope you'll get a set of clear

keycap decals to make One-Key easier to use, and an extra decal listing the std DOS error messages by number (are you listening Diversi-DOS users?), too. See the file "READ ME FIRST" for decal details.

Basically One-Key DOS allows you to enter disk commands with single keystrokes (plus return) from either the keyboard or from within a program. Here is just one examle of its use: You can do a CATALOG and exit cleanly without the filename you're interested in scrolling off the top. When you see the file you want to Run, Brun, Load, etc, simply use the "-" key to move up the side of the screen (//e's use that or up arrow). When you get there, the top-row keys 1 through 0 (plus return) will print a DOS command, trace over your filename, and be sitting there awaiting your command to execute the desired DOS command (hit return). If you make a mistake or change your mind, a Ctrl-X cancels any action. What a marvelously simple way to execute 10 of the DOS commands. This even rivals the detatched keyboard macros!

As noted above, use on a //e is slightly different, and 80 column mode gets to be a real pain. Use 40 col mode with this disk.

One-Key DOS may be placed on any boot disk which is compatible: standard DOS 3.3, Diversi-DOS, ZIPPY DOS, and maybe others. (Regarding ZIPPY DOS, I'm not sure what it is or where it came from but that's what's on the One-Key Brooke produced. Let's EACH ask Brooke about it when we ALL send him our $9, ok?) One-Key is not intended for protected software, but if you have a backup/scratch disk, go ahead and give it a try.

When placing One-Key onto a disk (oh, its removeable too), you can give it a 'title' of up to 18 characters (lowercase supported), and a second line of up to 38 characters in inverse (no lc here). When you catalog this disk you will be shown on the first line: the number of free sectors, your first title, and volume number. The second line is the 38 char inverse title.

INIT has been removed so you'll need to INIT new disks with std DOS, Diversi-DOS, or ZIPPY DOS. Then use your One-Key original or backup to place One-Key onto the newly INITed disks.

Complete documentation is on disk.

(I really like this one, and if you're used to DOS 3.3 or Diversi-DOS, I think you will like the enhancements it gives you, too)

_____

BLANKENSHIP BASIC © v2.6

Copyright 1984 by Blankenship Associates
Issued June 1985 by Steve George
Requested fee$12.50 = keep v2.6 & recieve documentation,
*   or $25.00 = recieve newest version & doc.*

Through a special arrangement with John, we are pleased to announce that he will allow us to distribute his software through our DOM system (even though it is strictly copyrighted and is NOT Personal Domain).

Blankenship BASIC (BB) is an advanced, structured BASIC interpreter written to run on Apple][+, //e & c (including supporting 80 columns and the Delete key). If you continue to use it, you are requested to pay the author (usually a nominal fee) for using the program. BB is 99% upward compatible with Applesoft. It provides true IF-THEN-ELSE logic, four types of LOOP structures, and you can DEFINE and PERFORM NAMED procedures. Built-in commands include:

```
     SORT    SEARCH RANDOMIZE      DEL.ARRAY
     SWAP    VECTOR BOXFILLPRINT.USING
     BOX     INSTR$ COLLECTDRAW.USING
     CHAIN   MERGE  SOUND  RESTORE.HERE
```

and many others including several new graphics commands. (The press release that I read indicated that there are nearly 100 commands available!) And, all TAB and PRINT commands work on the Hi-Res screen.

Line numbers are used only for entry and editing, as GOTOs/GOSUBs are un-necessary. A full, integrated Editor with Auto-Num and Renum automatically indents listings ala 'pretty-print'.

Print out the documentation and information file to learn more. John Blankenship notes that not all of the new commands are given in the demo-docs. To receive them 'all' send him $12.50 and use this version of BB (v2.6) or send him $25 and get the docs and the newest BB version. (The docs you receive are better but not quite the detail I'd like to see. Even with the full docs, plan on some time playing with this new language before you begin to feel comfortable with its usage.)

The following is an example of the style and syntax used with Blankenship BASIC direct from the demo-doc on disk.

```
     1000 COMPILE
     1010 WHILE A<30
     1020   WHEN B=2 THEN
     1030     PERFORM DOG
     1040   ELSE
     1050     A=B-1
     1060     REPEAT
     1070       A=B+1
     1080       SOUND 100,50,1
     1090     UNTIL I>20
     1100   ENDWHEN
```

```
     1110 ENDWHILE
     1120 END

     1130 DEFINE DOG
     1140   FOR I= 1 TO 4
     1150     PRINT I
     1160   NEXT I
     1170 FINISH
```

The little playing I've done with BB allowed me to come up with a short program which will print some of the commands for reference. To use it, boot BB, select menu item #1 or #2, type FP to clear memory, and then enter this program and RUN it. (My apologies to structured programmers everywhere):

```
     1000  A= 3617
     1010  B= 3263
     1020  WHILE B < A
     1030    C= PEEK (B)
     1040    B= B + 1
     1050    WHEN C < 128 THEN
     1060      PRINT  CHR$ ©;
     1070    ELSE
     1080      PRINT  CHR$ ©
     1090    ENDWHEN
     1100  ENDWHILE
```

_____

Bank'N ©

Copyright 1984 by Hal Carter
Issued July 1985 by Steve George
Requested fee: $10.00

Bank'N (DOS format)

The first time you use this disk you'll probably want to choose menu selection 4: the Install portion of the program. It will prompt you for your name, account number, beginning check number, and balance. When you exit Install and enter the Checkbook program via main menu selection 1, you should immediately build a table of expense codes (composed of any 2 alphanumeric characters) for future use. Up to 63 Expense codes may be entered. Examples might be:

```
     U   Utilities   UE Electricity
     UG Garbage      UP Phone     etc
```

The command codes listed below are used in the Checkbook program (also while building expense codes):

CTL B - Display balance.
CTL C - Change transaction entry (cannot change check number).
CTL E - Position to the end of checkbook.
CTL F - Temporarily remove transaction
CTL G - Restore transaction removed with CTL F
CTL I - Tab to next field (TAB on //e).
CTL J - Scroll in reverse (Up Arrow on //e). 'J' works also.
CTL K - Scroll forward (Down Arrow on //e). 'K' works also.

CTL P - Delete transaction (cannot delete checks).
CTL Q - Quit (return to main menu).
CTL R - Place reconciliation flag on transaction. (Spacebar removes reconciliation flag.)
CTL S - Switch to expense code display/data entry.
CTL T - Position to beginning of checkbook.
CTL Y- Remove all reconciled transactions in the Checkbook prior to the first transaction that is not reconciled. The bank balance is adjusted accordingly. This option is normally used only at the end of the year.
ESC - Abort this transaction. Used to 'back out' of entering a transaction.

Checkbook Program:

When in the Checkbook, headings are provided to guide you in entering transactions. Headings include the following: Date, Transaction type (entries must be either C)hecks, D)eposits, W)ithdrawals, or S)ervice charges), Check number, Split indicator, Payee, Expense code, and Amount.

Checks must be entered in sequence and numbers may not be skipped. Transactions may be split between two or more expense codes.

Commas and decimals are allowed when entering transaction amounts.

As you scroll through the checkbook, new transactions are entered at the current position of the cursor.

All checks must be accounted for. If you need to void a check, enter the check, but with an amount of 0. The program will accommodate approximately 1,300 transactions. If the transaction buffer becomes full, use CTL Y to remove all reconciled transactions.

Reconciliation Program:

If you select 2 from the main menu, you will enter the Reconciliation Program. You will then be asked to enter the current date and bank balance from your statement.

Transaction Query:

If you select 3 from the main menu, you will enter the Transaction Query program. This program allows you to select and display transactions based upon some selection criteria. You will be prompted for the various elements on which you may select transactions to be displayed. If you do not desire to select on a particular element, simply depress carriage return. An asterisk in the Payee field indicates a wildcard.

Be sure to backup your Checkbook diskette often. Also, at the end of each year be sure to backup your diskette for your permanent record before entering CTL Y. You may backup the entire diskette or only the Transaction file (CHECKS).

_____

Math Invaders ©

Copyright 1983 by Alan Needham
Issued August 1985 by Steve George
Requested fee: $10.00

Math Invaders is a keyboard or paddle game similar to 'Type Attack' except that it involves addition of numbers. Choose sound on/off, difficulty, number of games (sets), etc. The <ESC> key starts the game. When you begin, you will be confronted with several numbered alien ships. At the side of the screen will be the math problem to solve. When you have added the numbers in your head, use the arrow keys to position your space ship below the alien with the correct answer. Space bar shoots the alien/digits and they disappear, while the remaining ones slowly descend upon your position!

As received, the Addition section is included. To receive the Divide, Subtract, & Multiply portions, you must send Alan his fee of $10 -- remember, this is Personal Domain. So if you like the program and continue to use it, send the author the requested fee.

_____

Hi-Res Doodle ©

Copyright 1983 by CARTER-MATION
Issued Sept 1985 by Steve George
Requested fee: $10.00

Hi-Res Doodle is a graphics system that allows you to make drawings on the screen and then paint them with a variety of colors. Pictures can be saved and loaded from disk. "Input" is through the keyboard or a game paddle input: joystick, Koala Pad, etc. "Functions" such as circle, frame, and rectangle are supported for those of us with less than steady hands.

An excellent feature is a command called 'checkpoint'. At any time you can set a checkpoint while drawing. Then, if you really screw things up, you can restore your picture to what it was at the last checkpoint!

"Paint" allows you to color-fill a bound area with a variety of colors. You're even allowed to enter text (UPPER and lower) to your pictures. Quite a complete little package, don't you think?

Complete documentation is on disk and there's even on-screen help at any time. Please remember that if you like this program you should send Hal $10 (this is Personal Domain). Owners of the program will receive instructions on how to use Hi-Res Doodle from within their own BASIC and assembly language programs.

Master Chart©

Copyright 1983 by Spectral Graphics
Issued Oct 1985 by Steve George
Requested fee: $17.95

Master Chart   (DOS format)

Ever needed to create a quick Bar, Pie or Line Chart? Wouldn't it have been nice to have some way to write on the chart? How about custom characters/symbols? Then there's always custom/automatic color fill. Want 3-D Bar or Pie Charts, hey, no problem!

This can be a handy little charting package. Its worst fault is that data points must be entered from the keyboard and Pie charts seem to be limited to 11 data entries. There is no provision made for reading a Text file or DATA statements. Oh, sure, you can change it to do those things, but as it comes, uhuh. Oh, there isn't a printer dump built-in either. If you have a graphics interface card for your printer it may be a snap, I don't know about such things, yet. But, the attached charts were saved to disk from within the program and subsequestly 'dumped' using The Printogrpher; so it can be done.

The program is menu driven and 'help screens' are generally available. The startup screen says that what you get for paying for the program is the documentation! Doc would definitely help you get under way. But as you can see, even without the doc, it is very useable.

Eve Terminal Program © v2.1

Copyright 1985 by MicroApplications, Inc.
Issued Oct 1985 by Steve George
Requested fee: $30.00

Eve Terminal Program v2.1 (DOS format)

A communications package for the][,][+, & //e for use with the Hayes MicroModem II or IIe. (Also appears to work well with MM compatibles like the ZOOM/Modem IIe.) Supports most 80-column cards including the M&R Sup'rTerm and Apple 80-col card, and the shift key mod on the][&][+. Supports XMODEM protocol.

Features supported:
- Originate and answer modes.
- Pulse (or TouchTone with MM IIe).
- Full DOS facilities, incl new 'LIST' cmd.
- Send/Rcve: Text, A'Soft, Integer or Binary files using XMODEM file transfer protocol.

- 'LIST' a Text file to modem using XON/XOFF or Send Lines Protocol with or without linefeeds, to Printer or to Screen.
- Capture incoming Text data to buffer (holds over 27,000 characters) and SAVE to disk or dump directly to Printer.
- Create messages off-line, SAVE to disk, then send once on-line.
- Common data formats: 7/E/1 & 8/N/1.
- Simple user interface with multiple error trapping.
- Full control of linefeeds, upper & lower case chars, and duplex.
- Full 80-column support (80 col optional).
- Works with Pronto-DOS, Diversi-DOS, and DAVID-DOS

Full documentation is on disk including a 'Reference Card'. Bob Baker, the author, says that a newer version with significant improvements is available to purchasers of the software. He's also working on one for external modems (SmartModem compatibles) and the Super Serial Card interface. [ENCOURAGE HIM!! Apple //c owners could really use someting like this!]

The Font Machine © v1.5

Copyright 1983 by CE Software
Issued Oct 1985 by Steve George
Requested fee: $15.00

The Font Machine   (DOS format)
If you are lucky enough to own one of the newer types of printers, you may have the ability to 'download fonts'. This disk will allow you to create an alternate character set within your printer. Switching between the two sets (normal/alternate) can be done within software, your word processor, etc.

Version 1.5 of TFM works with the following printers: Apple DMP, Epson FX series, and Prowriter 8510A. The interfaces supported are: generic parallel, Grappler/+, and Apple Dumpling. There is an outline of a driver for the Super Serial Card too.

Twenty fonts are included on disk, including: Roman, Cyrillic, Upside Down, Gothic, and Outline. Ten help screens complement the package.

Class Records©
v2.0

Copyright 1983 by Educator Software
Issued Nov 1985 by Steve George
Requested fee: $30.00

Class Records (DOS format)
This is a Personal Domain disk which automates the record keeping for instructors. Primarily designed for the high school or college level, it includes several nice features not generally found in grading programs.

When you send them the fee they request for its use, you will receive in return a user support number, a diskette label for your Class Records disk, and information regarding updates. All updates to this version (2.0) cost $5.

Please see the summary of a review (below) published in the newsletter.

Class Records software review by Michael Dirks
CLASS RECORDS is a grading system for secondary school and college level instructors. It is by Walt Wilson and Nick Brown from EDUCATOR SOFTWARE, 300 Licac Drive, Los Osos, CA 93402. The first four screens from booting consist of title page, credits, sales information (this disk is currently being sold personal domain), and update information (this version is 2.0).

Next we are met with the top level of CLASS RECORDS' menu which contains the following six options:
1. View the manual (on the screen)
2. Print the manual (on the printer)
3. Run the SETUP program
4. Run the CLASS RECORDS program
5. Review the sales information
6. Quit

Option (6) needs no explanation except to say that ANY "quit" option encountered in this program puts you completely outside the program. Option (5) kicks you back to the opening title screens (don't worry about getting lost - tapping a few space bars will bring you back to the main menu). Option (1) allows you to view the extensive manual on the screen - 85 screens to be exact - you even get asked if your APPLE can display lower case. If you get tired of reading the screen you can exit with a simple ESC at any time and you will be back at the main menu. By this time you may want a hardcopy, option (2), but make sure you have enough paper: it takes 30 printed pages. Overall, the manual is very helpful and specific, but there are a few typos.

Besides these few details, the manual is very good and very thorough. Well, enough about the manual - let's take a closer look at the actual grading program.
Option (3) runs the SETUP program which you would use to set up the parameters specific to your system and for your classes. (The menu options are UPPER CASE.) CHANGE EXAM PARAMETERS allows you to adjust class sizes, exams (assignments, quizzes, etc) allowed, name length, ID length, have letter grades on printout, and determine standard

percentage equivalants and breakpoints. You can even choose between grading on a percentage of the total possible or of the top score obtained. Any of these parameters can be changed from class to class or even from exam to exam. CHANGE SCREEN/KEYBOARD PARAMETERS allows you to select between upper or lower case output and 40 or 80 column capabilities. CHANGE PRINTER PARAMETERS allows for parallel or seriel printers and can even adapt to any smaller font capabilities your printer might have. Again, any of these parameters may be changed at any time. Other options include SAVEing PARAMETERS, LOADing NEW PARAMETERS, USER INFORMATION (another shot at the sales policy and credits information), and QUIT (which returns you to Applesoft). The final two options allow you to RUN CLASS RECORDS or to RUN CLR MAIN. These two programs are identical except that CLASS RECORDS is loaded into memory in one chunk and cuts down on disk access (saving on time), whereas CLR MAIN loads only those parts of CLASS RECORDS which are in actual use (saving on computer memory, allowing for an extremely large class).

Back to the main menu, the only remaining choice is option (4), running the CLASS RECORDS program (finally). Options at this level include:

LOADing and SAV(E)ING data (there is some room on this disk for student data, and other data disks may be used as well)
MODIFYing parameters (back to option 3)
QUITing (to Applesoft)
ADD NEW DATA - either new scores, new names, or new ID's
CHANGE DATA - either names, ID's, scores or percentage breakpoints may be changed; students may be added or deleted; and a class may be sorted by names or ID's;
GRADING SUMMARY - scores of the specified class and exams are displayed, with options for mean, standard deviation, and histogram;
VIEWing and PRINTing - by name or ID number, with either raw scores for single exam, raw scores with cumulative total points, or with standardized score format;

The manual continues on from here with more explanations and examples (the disk even comes with two "classes" complete with scores so that you don't have to put in lots of keyboard time just to see how CLASS RECORDS actually works). In general, CLASS RECORDS is a very delightful program; however, I can think of two disadvantages based on my experience with other grade management programs (I teach math and computer science at the seventh grade level):
• No option for 12-point grading system (A-,B+,B,B- etc)
• No option for individual student progress report (something that can be sent home to parents)

On the other hand, there are many nice features:
• Sort by name or ID number
• Upper and lower case capability (even with II+)
• Compatible IIe 80 character board, and others
• Extra credit point handling capabilities
• Generous allowances for class size/number of exams
• Grading off the top score or out of total possible
• Cumulative totals with current letter grade available anytime

• Options for weight factors and dropping hi/lo scores

In conclusion, this grading system is very thorough with its many options for the keyboard, printer, and screen, and with its flexibility in grading options. The program is very hard to crash (I have not succeeded yet), and you are constantly being reminded of how much computer memory space is currently free to use. For educators, this is worth looking at.

_____

Sparkee ©

Copyright 1982 by Ken Sherwood
Issued Nov 1985 by Steve George
Requested fee: $0 (yup, zip!)

Sparkee   (DOS format)

Here's a real treat! This disk makes use of hires graphics like you've never seen before. If you are at all familiar with another Personal Domain disk we have called Fire Organ, then you get the general idea. If this is all new to you or you've forgotten, here's a brief attempt to describe this unique disk.. Sparkee is 'A Fire Organ Album' which utilizes 'CEEMAC', the 'Visual Composition Language' (available from Vagabondo Enterprises). What a record album is to your ears, Sparkee is to your eyes. It is suggested that the visual is augmented by your favorite audio, so 'toin it up'!!

Keyboard input of A through Z will cause a different 'score' to begin execution. At any time, you can hit the space-bar and 'freeze' the action. Another press starts the display again. If what you've frozen is of value, you can save the stationary display, too. Directions are contained in the file '@LINER NOTES'. Paddle 1 input affects the running of some scores, as do the Buttons (or open and closed Apples on a //e & c).

This is the updated version (now works with the //e & c) and could possibly cause to you to spring for that new color monitor!!

5 1/4"

Pascal

Disks

PIG5

LIBRARY DISK:

This fifth disk in the Pascal library is composed of 17 files from two submitters. The first 13 are by David Neumann and provide several units to allow reading and writing of DOS formatted disks. The last four files are from Herb Klonser and provide an excellent program to make use of the Epson MX-80 printer's capabilities. This program appeared in the June 1981 issue of the WAP newsletter.

DOSIOGLO.TEXT
DOSIOGLO.CODE
DOSIOGEN.TEXT
DOSIOGEN.CODE
DOSIOIN.TEXT
DOSIOIN.CODE
DOSIOOUT.TEXT
DOSIOOUT.CODE
DOSXFER.TEXT
DOSXFER.CODE
CAT.TEXT
CAT.CODE
DOS.DOC.TEXT - (David Neumann) These files implement file transfer to and from DOS formatted disks. DOSXFER.TEXT and CAT.TEXT are demonstration programs to show how to use the procedures. DOS.DOC.TEXT is a brief documentation file about the procedures implemented.

MX80SAMPLE.TEXT
PRINTINFO.TEXT
PRINT.TEXT
PRINT-FILE.TEXT - (Herb Klonser) PRINT.TEXT and PRINT-FILE.TEXT are the source files for a program that makes full use of the print enhancement and other capabilities of the Epson MX-80 (or MX-100) printer. By including commands within your text file (such as {E} which turns on emphasized printing) you can selectively turn on or off features of the printer. PRINTINFO.TEXT is the documentation file for the program and MX80SAMPLE.TEXT is a sample text file using the features of the program.

PIG6

Washington Apple Pi

The first "GEM" on this disk is a Master File Catalog Program provided by John F. Long. It is based on the Ed. Heyman article in Byte, May 1981. John has added options for printer output and page by page screen output as well as some other improvemnts. This program includes "FIRSTPART.TEXT" and "MAINCAT.TEXT".

Next we have different version of the same Byte article by George Hart via Jim Harvison. This has many changes and is not compatible with the original article. It is much faster and perhaps someone will take the best of both programs and "CREATE" the SUPER master catalog. The files for this program include "CAT1, CAT2, CAT3 AND JUST PLAIN OLD CAT".

ADDRESS.TEXT is an address calculator submitted by Roger Kaufman.

Michael Hartman submitted the SPIROGRAPH program. Very relaxing and not to bad for a demonstration.

Next we have a set of HIRES units for the Paper Tiger sent in by Ed Knepley. These are based upon earlier WAP newsletter articles by the infamous Dr. Wo. The procedures (1) Dump the screen to the Paper Tiger, (2) Save the screen to disk and (3) Load a screen from disk are provided. We also have the ability to use page 2 with these units.

Finally a Pascal Memory Utility submitted by Bill Wurzel. This routine allows you to examine, disassemble and change mememory. It is based upon an article by Ron DeGroat in the August issue of CALL A.P.P.L.E. Bill has made modifications to accommodate the Smarterm board.
Dr. Who??

PIG7

Washington Apple Pi

Thanks to David Newman for the LISP and Clock routines. Dave has provided the "essence of a LISP interpreter". As he points out it needs to be extended. So get busy out there. This means YOU!

The clock routines are for the CCS 7224 clock/calendar card. They allow the CCS card to function essentially the same as a Mountain Hardware card. Two extra routines are provided for setting the clock and calendar and to allow automatic setting of the date when booting.

The balance of the files are from the Dallas Apple Corps - Fort Worth Apple User Group, and are described below.

Dallas Apple Corps - Fort Worth Apple User Group

November 1980 Disk of the Month compiled by Lee Meador

QUADROOT - A program that asks for the three coefficients of a quadratic equation and then prints out in formatted columns the two roots (solutions) to the equation. It will find both real and complex roots. by Jim Herman and Lee Meador - FWAUG, DAC

NEWTROOT - Uses the Newton method (pioneered by Sir Isaac himself to solve an equation. You must add the equation to the program in the function F. You must also add the derivative of the equation in the function D. from the TI 990 Pascal manual

DICE - As you watch the results of 10 throws of a pair of dice is shown on the screen. Then a scaled bar graph is drawn showing the distribution of values so far. Pushing any key will end. by Jim Herman - FWAUG

BIKEPLUS - An implementation of the program from BYTE magazine that calculates information on gear ratios for 10-speed bicycles. But, this program has a plus in that Jim Herman has added his own artistry to first draw some pictures and play some music. by Jim Herman - FWAUG

FIGURES - Uses screen and line erase features to allow the user a format similar to system programs for entering requests for information on the areas of triangles, squares and circles. By Jim Herman - FWAUG.

QUICKSORT - generates some random numbers and sort them using HOARE's Quick Sorting method. This program is extremely modular and should be easy to incorporate into your own applications that require sorting. Can also be used to compare sorting speed with the next program. by Jill David - DAC

SHLSORT - generates random numbers and sorts them using the Shell Sort method. See Quicksort for uses. by Jill David - DAC

PRNTDATE - the heart of this program is a PROCEDURE that looks up the date as stored on the system disk in device #4 and converts it to two different strings. One is of the form DD/MM/YY the other DD mon YY. Easy to add to your own programs. by John Strait and Pat McGee - Houston AUG

SETDEMO - a quick demonstration of some of the things you can do using SETs. by Jill David - DAC

FILEBURP - from the October issue of Call-APPLE, this program allows one to peruse the file structure of Apple Pascal by looking at any of the blocks of any file on the disk. You can print (on the printer or screen) the contents in Hex or Ascii mixed with Hex.

****
The following programs are all by Jill David of the Dallas Apple Corps: These were originally on another DOM for November 1980:
****

VARXREF.TEXT	18	7-Nov-80	28	Text	VARIABLE-LINE CROSS
VARXREF.CODE	5	7-Nov-80	46	Code	REFERENCE PROGRAM
RESERVED	2	7-Nov-80	135	Data	(AND A FILE IT USES)
WRITERESR.TEXT	4	7-Nov-80	51	Text	WRITES DATA FILE FOR
WRITERESR.CODE	2	7-Nov-80	55	Code	VARXREF PROG.
HELLO.TEXT	8	11-Dec-79	57	Text	PRINTS TEXTFILE WITH
HELLO.CODE	3	11-Dec-79	65	Code	UPPER & LOWER CASE
RACETEST.TEXT	6	7-Sep-80	108	Text	(included for your
PRECISION.TEXT	6	14-Aug-80	114	Text	information)
DISKDUMP.TEXT	4	9-May-80	123	Text	
BUF12.TEXT	4	28-Apr-80	129	Text	WRITES A DATA FILE
BUF12.CODE	2	28-Apr-80	133	Code	

HAPPY pigging, oink, oink.   Dr. Who???

_____

PIG8

LIBRARY DISK:

Contributions on this disk are from a potpourri of sources. Tom Woteki, the USUS library with modifications by Brian Pierce and Howard Lefkowitz and via an exchange program, the Dallas Apple Corps and Fort Worth Apple Users Group.

PUFFIN.CODE
PUFFIN.TEXT
TRANSFER.TEXT - (Tom Woteki (Dr. Wo)) This program featured and well documented in the September 1981 Washington Apple Pi is an exellent program to move DOS files, text or binary to the Pascal system. I use it myself for moving HIRES files created under DOS to Pascal. I can then put the "pictures" together for a fast moving slide show. TRANSFER.TEXT is a part of the source file which is (*I included) in the PUFFIN.TEXT source.

PROSE.CODE
PROSE.DOC1.TEXT
PROSE.DOC2.TEXT - (USUS Library modified by Brian Pierce) an exceptional text formatter altho somewhat slow. It is provided here in CODE form only due to some concern about weather or not the source is in the public domain. TheDOC files fully explain it's use. The code version has been fixed and enhanced by Brian Pierce.

HOLIDAY.TEXT
TWINKLE.TEXT
MUSIC.BOX
AULDLANG
RAUCOUS
JINGLE.BLS - (Jim Harman Fort Worth Apple User Group) Makes you apple sing and hum (Well if you listen closely it allready hums). Compile these and give them a try. Exellent demo's and use of the NOTE procedure in the APPLESTUFF UNIT of the system library.

_____

PIG9

LIBRARY DISK:

This months contributions are from just two people yet we allmost fill the whole disc. In particular we are most gratefull to John C. Stephenson for the contribution of his CRT unit a major effort. We hope these contributions will motivate the rest of you to dig thru your own programs and share them with us. John is a Washington Apple Pi member (WAP591) even though he lives in New Jersey. I hope that other distant members of WAP will follow his example and take the time to contribute to us as well. Jim Harvison.

CRT - (John Stephenson) This unit supports extensive filtering of keyboard input, screen template use and all in all should make your program "crash" proof (at least so far as input goes). It is comparable to what is provided in commercial versions costing from $75 on up. This is one you should definitely have a use for. Documentation is contained in READTHIS.TEXT. All files except the last two on the disc have something to do with this UNIT or a demo of it.

CPMTOPAS - (Dave Neumann) Dave has provided us owners of a Z80 card and CP/M (running UCSD on it of course) to transfer files from the CP/M system to Apple Pascal format. CPMTOPAS.TEXT is the source. Dave also has the source for a program to move files from Apple Pascal to CP/M format. This program is available thru the WAP CP/M users group.

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PIG10

The contributions on this disk come from four people, David Neumann, Bob Platt, Mike Hartman and one typed in by yours truly. Contibutions have been slow coming in. Come on "Folks" dust off those floppies you've been hording or meaning to send and do it! Jim Harvison -- 20-JAN-83

VIRT.DOC.TEXT
VIRTSEG.TEXT
VRTGLOB.TEXT
FAKESEGS.TEXT - (David Neumann)
David provides us with an excellent set of routines based on those originally appearing in an article in USUS (see Daves documentation for article reference). These routines allow you to use in your progam a virtually unlimitted number of segments by faking out the system thru directly modifying the system tables and getting the system to load additional segments from code files. Read VIRT.DOC.TEXT to see how to use the routines.

SILENT.TEXT - (Typed by Jim Harvison)
This is a Pascal Unit to control a silent type printer from routines in the back of the Apple Silent Type Printer manual. Program is self documenting.

VERBS.DOC.TEXT

VERBS.TEXT
VERBS.VOCAB
GERUND
PAST
REGULAR - (Bob Platt)
Bob has provided us with our first application using Pascal for educational drill and practice. The program drills and practices Spanish (Yo hablo Pascal?) I think you will find the progam flexible for adapting to other languages. VERBS.DOC.TEXT is the documentation for the program, VERBS.TEXT is the program and VERBS.VACAB, GERUND, PAST and REGULAR are data files containing the words to be used.

VIEW3D.TEXT
VIEW3D.INFO
CUBE.TEXT
OBJECTIO.TEXT
VIEW3D.CODE
PYRAMID.TEXT
MAKEPIC.TEXT
POLY.TEXT
FLOOR.TEXT - (Mike Hartman)
Try this one out too! It allows for the creation of objects, specifying their orientation to the viewer, other objects and the placement of and then draws them. It allows you to coninue to specify the viewers perspective and move around the object. VIEW3D.TEXT, OBJECTIO.TEXT, and MAKEPIC.TEXT are the source code for the program. VIEW3D.INFO contains information on compiling and using the program. VIEW3D.CODE is a compiled and linked executable file (for use with the 40-column screen). POLY, CUBE, PYRAMID, and FLOOR (all ".TEXT") are sample object-definition files for use with the program. VIEW3D uses the READREALS unit, which is also included on this disk.

READREALS.TEXT - Michael F. Hartman
READREALS is a unit for free-format and error-tolerant input of real numbers from the console. String-type editing of the numbers is allowed before the carriage return is entered, and in the event of a parsing error the user is allowed to reenter the data. Leading zeros and trailing decimal points are not required. The unit may also be used in conjunction with the TRUNC function to read integers.

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PIG11

Washington Apple Pi
Pascal Interest Group

As we enter our second decade of PIG disks (by count, not years), we have another fine collection of programs gathered from PIG members, USUS members, and Texans. Most of the contributions here are system-related programs to add new capabilities or hardware devices to Apple Pascal. A few of these access particular memory locations in the system, and will probably need to be updated when Apple releases Pascal version 1.2 early in 1984. (A word to the wise...) For those of you who feel we are getting too serious, this disk also

contains a "sound-and-light" program (maybe next time we'll even have a GAME!).

PIG11: also features the first PIG programs specifically for the Apple //e computer. We hope to see many more soon. Anyone out there with a Revision B board want to write a double hi-res graphics unit?

Most of the files on this disk have been edited using the Advanced System Editor (ASE) from Volition Systems. These files are completely compatible with the standard Apple Pascal editor, except that the information displayed (and alterable) with the S(et Environment command is not picked up by the standard editor from ASE-edited files.

Here are the capsule descriptions of the programs:

BLAISE.3.2.TEXT
FILE.INFO.TEXT
TEST.FINFO.TEXT - Tom Woteki
These routines provide access to the File Information Block (FIB) maintained by the Apple Pascal system on each file declared in a program. They are comparable to the routines provided for UCSD IV.1 by several of its vendors. Such information as file pointer position and file buffer state is now available for your program's perusal. FILE.INFO.TEXT is the UNIT which contains the FIB access procedures. TEST.FINFO.TEXT is a sample program which utilizes the UNIT. BLAISE.3.2.TEXT is the documentation for both, which originally appeared as Tom's "Blaise Away!" column in the January 1983 WAP Journal.

RAMHOOK.TEXT
RAMDRIVER.TEXT - Steve Daly
These programs provide a device driver which turns the Extended 80-Column Text Card of your Apple //e into a super-fast 62K RAM disk. Steve has turned that paperweight inside your new machine into something useful! And in a fit of cleverness, he has hidden the bulk of the driver in a fragmented portion of the auxiliary memory so that is doesn't fill valuable main RAM space. What do you use such a thing for? Put SYSTEM.COMPILER out there and speed up your compiles by a factor of two. Run your segmented programs from the RAM disk and you'll never know they're overlaid! The file RAMHOOK.TEXT contains the documentation and the small hook of the driver which is provided to the ATTACH routines. RAMDRIVER.TEXT includes most of the device driver and the routine for copying it into the auxiliary memory. To install the driver, you will need Apple's ATTACH: disk, available from WAP as PIG0:. (Note that this RAM disk can coexist with double hi-res graphics provided you M(ake a file which reserves blocks 12-27.)

STARTUP.TEXT
STARTUP.EXEC - Michael Hartman
Here are two very small files for use with the RAM disk driver described above. STARTUP.TEXT calls the routine which copies the RAM driver into auxiliary memory and chains to the exec file STARTUP.EXEC. This Z(eros the RAM disk (on power-up only), makes it the prefix volume, and asks you the date. You can add your own startup procedures to both of these. You must compile STARTUP.TEXT, link it to the assembled RAMDRIVER.TEXT, name the result SYSTEM.STARTUP, and put it and STARTUP.EXEC on your

boot disk. They will then be executed every time the system is booted or I(nited.

LOWER.CASE.INFO
PATCH.LC.TEXT
PATCH.ASM.TEXT
PATCH.SYS.TEXT
ALTCHARS.TEXT - Michael Hartman
When I got my new Apple //e home, it didn't do any more than my old][Plus did (I was waiting for the Extended 80-Column Text Card to become available). This was incredibly frustrating after spending all that money, so I broke out my BIOS disassembly and wrote these programs. They are a collection of routines for patching Apple Pascal 1.1 to utilize the lower-case typefont on the Apple //e. They should also work without modification for a lower-case chip in an Apple][or][Plus. These programs are necessary only for the standard 40-column screen. Any 80-column card will accomplish lower-case display automatically.

INTERRUPT.TEXT - Arley Dealey
Ever tried to use interrupts with Apple Pascal 1.1? You probably had some trouble. This file from Arley Dealey explains the bug in the floppy disk driver and shows how to patch it.

ASE.HEADER.TEXT - Arley Dealey
The Advanced System Editor (ASE) from Volition Systems is a superset of the standard Apple Pascal editor. For those of you who have it, Arley and Volition have been kind enough to provide the text file header declarations for ASE releases 0.4 through 0.9. Both this and the file above were obtained (with permission) from MUSUS, the USUS SIG on CompuServe.

NEWROOTDOC.TEXT
NEWROOT.TEXT - John Stokes
Now that you have a RAM disk (see RAMHOOK/RAMDRIVER and SSD.DRIVER), wouldn't you like it to be your root disk? No more waiting while SYSTEM.PASCAL or UNITS from SYSTEM.LIBRARY are loaded! This program gives you that capability for Apple Pascal 1.1 and 1.2. Any device you choose--hard, floppy, or RAM disk-- can become your root (not boot) volume. NEWROOTDOC.TEXT is the documentation and NEWROOT.TEXT is the program. Both were originally obtained from MUSUS, and also appeared in the August 1983 WAP Journal. [This disk now contains updated versions of these files which are appropriate for both Pascal 1.1 and 1.2.]

SSD.DRIVER.TEXT - Ed Knepley and David Neumann
For those lucky owners of the Synetix Solid-State Disk (SSD), Ed has written a device driver for you to use in place of Synetix's. The benefits are saving money, having the source code, and its working with Modula-2 from Volition Systems. For documentation, see Ed's article in the July 1983 issue of the WAP Journal. This includes the listings of a STARTUP routine (similar to the one described above) and of a program to make the SSD the root volume. (NEWROOT on this disk will also work with the SSD and is somewhat more powerful and flexible.) Dave Neumann has made some modifications to the version of the driver listed in the article, making it a tad larger, but it is now faster than even the one Synetix provides! Dave has also added some code to automatically Z(ero the SSD on power-up. If you keep this in, you must be careful about C(hanging the volume name of the SSD device. The driver is written for an SSD in slot 5, but this is easily changed at the

top of the program. Again, as for any "foreign" device you want to attach cleanly to Apple Pascal, you will need Apple's ATTACH: disk to install the driver.

MMODEMPTCH.TEXT - Anonymous
This program patches the Apple Pascal 1.1 BIOS to utilize the D.C. Hayes Micromodem][(in slot 2) as REMIN:/REMOUT:. UnitRead, UnitWrite, and UnitClear (and I would expect Read, ReadLn, Write, and WriteLn) in your own or others' programs will now talk to the Micromodem. The program directly patches the interpreter/BIOS file SYSTEM.APPLE, which it expects to find on the root disk. This file was obtained from the Source Pascal Information Network (SPIN); its author was not identified. Are any of you ace programmers inspired to write a device driver for the Micromodem which can be ATTACHed in the standard way?

DCCONTROL.TEXT
DCCTL.TEXT - Paul H. Kimpel
Here we have yet another assembly language program for talking to I/O devices. This is a terminal emulator program which controls communications between an external console and a modem, with optional echoing to a printer. The author has written the program for CCS 7710A Asynchronous Serial Interfaces in slot 3 (CONSOLE:) and slot 1 (PRINTER:) and an Apple Communications Card in slot 2 (REMIN:/REMOUT:), a combination unlikely to be duplicated (though it would be possible to adapt it to your own hardware). But the program is well worth looking at for the way in which Paul handles the polling of the devices and the queuing of I/O in both directions, nicely accomodating the widely different baud rates of the three devices. DCCONTROL.TEXT is the Pascal host which simply calls the assembly language in DCCTL.TEXT. This program originally came from the San Antonio Appleseed User Group and reached PIG via an exchange with the Dallas Apple Corps/Fort Worth Apple User Group.

KINETC.STR.TEXT - Terry Pundiak
Finally, a beautiful graphics program (which also makes music) to round out the disk. Terry based the graphics on the "Kinetic String Art" algorithms in a "Byte" article by Louis Cesa and added the accompanying music himself. This program came from Apple Net (?), also via the DAC/FWAUG route. It's a good thing there weren't programs like this when I was in college. If we'd had this to watch when we were spaced out, we'd never have gotten any work done.

Thanks again to all contributors, and keep those programs coming in! We are especially pleased to receive programs from WAP members (and others) outside the Washington area. By the by, PIG is starting a new library of Modula-2 programs (MIG?). Please send any of your Modula-2 efforts in for everyone's benefit!

Michael Hartman   PIG Librarian   August 1983

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PIG12

Washington Apple Pi

Pascal Interest Group

This time we have another collection of Pascal programs from around the country. Three of the four contributions on this disk are from outside the Washington area (two of them from WAP members). TRACKER and WEIGH-IN are substantial applications programs; DIABLO is a two-part utility, half of it complete and half in need of additions; while MORSECODE is a good idea in need of a little more work. I'd like to encourage the contribution of more programs which perform tasks useful to people other than computer programmers.

Again, some of the files on this disk have been edited using the Advanced System Editor (ASE) from Volition Systems. These files are completely compatible with the standard Apple Pascal editor, except that the information displayed (and alterable) with the S(et Environment command is not picked up by the standard editor from ASE-edited files. ASE files will be common on all future disks, even though this note will not appear again.

Here are the capsule descriptions of the programs:

TRACK.INFO.TEXT
TRACK4.TEXT
UTRACK.TEXT
TRACKALSO.TEXT
TRAKCOMP.TEXT
TRAKGRAF.TEXT
UENTRIES.TEXT
TRACKER.CODE
UENTRIES.CODE - Jerry Crawford
TRACKER is a complex program for tracking the prices of stocks or other speculative investments. It produces graphs and listings of each item's price history, and also makes performance comparisons among the investments. Beware of option 5, "Create new set of files": this can cause the data files on your disk to become inaccessible. TRACK4 is the main program. UTRACK, TRACKALSO, TRAKCOMP, and TRAKGRAF are regular UNITS which are used by TRACK4. UENTRIES is a general-purpose intrinsic UNIT for filtering console input. TRACK.INFO contains some background information about the program. Because of the large number of program components, a compiled and linked code file has been included as TRACKER.CODE. It expects to find UENTRIES.CODE installed in your SYSTEM.LIBRARY. One note for those who have more than two disk drives: there is a bug in TurtleGraphics which causes it to look for SYSTEM.CHARSET only on units 4 and 5 rather than on all blocked units. If your graphs aren't labelled, put a copy of SYSTEM.CHARSET on your disk in drive 4 or 5.

DIABLO-DOC.TEXT
DIABLO.TEXT
MINIPUB.TEXT
DIAPLOT.TEXT
PLOTTEST.TEXT - Paul H. Kimpel
This Diablo printer interface package came from the San Antonio Appleseed User Group via an exchange with the Fort Worth Apple User Group/Dallas Apple Corps. Lee Meador of the DAC described it as follows: "This is a couple of units, some test programs, and documentation that is quite thorough. The purpose of these is to implement control of a Diablo 1600 series printer via interface card in slot 1. Some Qume printers and some NEC Spinwriters use a Diablo interface also. You

have functions to print lines, paginate, wait for letterhead entry, print subscripts, double strike characters, underscore automatically, and a bunch more. The plotting package will let you at least plot straight lines." DIABLO-DOC is the documentation of the programs. DIABLO is the text printing unit, which is exercised by the mini- formatter MINIPUB. DIAPLOT is the plotting unit-in-progress. Its functions are demonstrated by PLOTTEST.

WEIGH.INFO.TEXT
WEIGHIN.TEXT
MKWTDATA.TEXT - John Stokes
Have you been scarfing down too much junk food during those late-night debugging sessions? (Yes, it's true--Real Programmers just _love_ Double-Stuf Oreo cookies!) Well, this program will help you keep track of your gains and losses on the fat front. Weigh-In lets you enter your weight every day and gives you a graph of your weight over a two-month period. The program keeps one year's worth of data on file, and this also can be reviewed. Weigh-In additionally keeps track of your high and low weights, and lets you set a goal to measure your weight against. Editing of the file (to correct mistakes, no cheating!) is also supported. WEIGHIN is the main program which you use to enter, display, and edit your weight data. MKWTDATA is a utility program which must be run once to initialize the weight data file. WEIGH.INFO is John's very clear documentation. There are a couple of interesting "tricks" in WEIGHIN. John pulls the current date out of memory (your boot disk might not be on-line), and he also peeks at a memory location to determine if your computer has an eighty-column card. He uses this last information to control the centering of the program menu.

MORSECODE.TEXT - Brian Cuthie and Jim Harvison
MORSECODE is a program for use by ham radio enthusiasts to practice their Morse code receiving skills. It reads a specified text file from disk and transmits it in Morse code over the Apple's built-in speaker. The program asks you for two parameters: speed and spacing. Speed controls the length of the dots and dashes; 1 is the fastest and anything greater than 15 isn't useful. Spacing dictates the pause between characters, and is scaled by the speed parameter. Its value for proper code formation is between what 2 and 3 give you. The program needs a few improvements still. It should be possible to specify the speed in words per minute, and the spacing between words is too short. MORSECODE was originally written by Brian Cuthie for the IBM-PC (bleah!) in Microsoft's Pascal. Jim Harvison modified it to work under Apple Pascal. Brian used a compact encoding technique to define the dot-dash sequence for each character. It suggests the presence of bit-manipulation functions in Microsoft's Pascal (I'm still not comfortable with where Apple Pascal uses, ignores, or clears the "irrelevant" bits in Boolean variables).

Thanks again to the contributors, and please keep sending your programs in. We're still waiting for our first contribution from another country (either that or one from each of 'the 50 states!). Also, please send me reports on any bugs in PIG programs (along with any solutions you found) in care of WAP.

Michael Hartman   PIG Librarian   November 1983

The Guerilla Guide to Apple Pascal consists of three text files. Pasint, Pbooks, and Pas2e. The Pasint file is too long for the Apple Pascal Editor, so it is broken into three files Pasin1,2,3.Text so that it can be updated easily. If you have ASE or another editor that can handle the whole file, you can make a file that can be printed out easily by copying the 3 files into a "blank" file. The ends of each file are marked with the marker "E" and the header, except for the first file is skipped by beginning at the "B" marker. Thus into the new file, you would copy "F" and when prompted for the filename enter Pasin#[B,E]. It has been formatted within the Editor (ASE), so that all that is needed is to set up your printer to skip perforations.

There is a file Print.Doc.Text that discusses two Epson programs that are included on the disk. One of these, PS.Text, sets the Epson to Skip perforations; The other, FF.Text, is handy if you are using a printer buffer to send a form feed before sending another file.If you do not have an Epson, simply use the Epson setup text files as a base to build your own. You will find it very worthwhile, as printing direct from the Filer is MUCH faster than printing through a text formatter. (Of course, we are talking about a Transfer of the file to #6).

The group of files following the unused part of the disk are a simple mailing list handler that will do short form letters that are made up in the P-system editor. Note that the key file is Mailer, and while it can run on the boot disk as System.Startup, it depends on all its textfiles coming from a disk named Mail: . This is designed more to show disk I/O, but it is enough faster than most word-processors so that we actually use it at the office!

Please let me know if there are major errors, or problems which I have not addressed in the GG files. I can be reached by mail at the address below, or during the business day (9-4:30 Eastern Time) at (201) 685-8395.

Bart Thomas
(Copyright 1984 by Bart Thomas)
287 Gemini Drive 4-C
Somerville, NJ 08876

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PIG14

Washington Apple Pi
Pascal Interest Group

We have a real hodge-podge of programs this time. Just to be different, almost all of them are from local PIG members. There are utilities for printers and PILOT, for disks and displays, and a small one to check up on your 6502. There is also a graphics program, and even the first game in ages (gasp!). Except where noted, all of these should run on the Apple][,][+, //e, and //c; they should also work under Apple Pascal 1.1 and 1.2, both 64K and 128K flavors. (This is definitely beginning to get complicated.)

Here are the capsule descriptions of the programs:

PILOTLIST.TEXT - Robert Platt
Bob has donated another program for the computer-aided instruction field, and our first related to the PILOT language system. (The PILOT system is Pascal-based, so this is the appropriate environment for PILOT utilities.) PILOTLIST produces a listing of your lesson with assigned line numbers and generates a cross-reference of all statement labels. This latter capability is not included in the PILOT system. Also, it enables you to make use of PILOT with non-Apple-protocol printer interfaces, since Pascal can support these via ATTACH drivers (this is in fact Bob's situation).

SCREENINFO.TEXT
SCREENUNIT.TEXT
SCREENDEMO.TEXT - Michael Hartman
This is a windowing unit for the Apple //e and its 80-column card. SCREENUNIT enables you to set scrolling windows of arbitrary height, width, and position on the text screen. It also provides cursor position reporting, type-ahead buffer stuffing, and inverse characters. The unit was inspired by BIOSSTUFF, which appeared on PIG3:. SCREENINFO is a set of short notes which should enable you to use the routines. SCREENUNIT is the unit itself. SCREENDEMO is a not-very-fancy demo which uses all of the procedures in the unit. By transferring this unit to Modula-2 and adding a procedure to stash the current screen state out to disk, it might be possible to do a very nice overlapping-window applications package through the use of co-routines. (I do not know whether SCREENUNIT will work with the //c; it uses somewhat different ROM code for driving the 80-column text display.)

LORES.INFO.TEXT
LORES.UNIT.TEXT
LORES.ASM.TEXT
LORES.ASMI.TEXT
LORES.TEST.TEXT - Michael Hartman
These files compose a double-wide lo-res graphics unit for the Apple //e and //c. The results are a little disappointing when you use an RF modulator connected to a television set, but I bet it's real nice on a monitor. Personally, I've always felt that lo-res graphics were vastly underrated. LORES.INFO is the documentation for the unit. LORES.UNIT is the Pascal host. LORES.ASM and LORES.ASMI are the assembly language source which does all the work. LORES.TEST is another mundane demo which uses all the unit's procedures. (The BASIC double-wide demo in the July 1983 Call -A.P.P.L.E. is pretty nice; the line drawing routine at the end was taken from it.) For those of you with][s and][+s, there is a mostly call-compatible 40-column lo-res unit on PIG2:.

LIFE.INFO.TEXT
LIFE.LORES.TEXT
LIFE.LRASM.TEXT
MACRO.LIB.TEXT - Michael Hartman
Now here's a nice demo for the double-wide lo-res graphics, and it uses the windowing unit to boot! Since the first real program I ever wrote (back in 1971 on a CDC something-or-other) was a Life program, I've always had a soft-spot for the simulation. I don't claim the algorithm is the fastest in the world, but it is the most straightforward. (Now that I have a 68000-based machine...) LIFE.INFO is a short explanation of the program (not of Life itself). LIFE.LORES is the Pascal part of the program. LIFE.LRASM is the assembly language part.

MACRO.LIB is my assembly-language macro library, which is used by LIFE.LRASM. As written, LIFE.LORES expects to find LORESGRAPHICS and SCREENUNIT in your SYSTEM.LIBRARY. (What do you mean you don't want to clutter your library up with my units?!)

PRINT.ART.TEXT
PRINT.TEXT - Jerry Crawford
This article and program for printing files on an Epson MX-80 or MX-100 printer appeared in the April 1984 WAP Journal. It allows you to set the number of lines per page, print size and emphasis, and a few other items. Note the sneaky method of telling you that your printer is turned off! To use this program with Graftrax-Plus ROMs, you'll have to add a line to turn off the automatic skip-over-perforation. PRINT will also work on an Apple /// (and /// Plus) as well as on the many varieties of //s.

REG.DUMP.TEXT - Michael Hartman
While I was working on the double-wide lo-res routines, I discovered a small bug in the Apple Pascal assembler. To help me to determine that it really wasn't my fault, I wrote this assembly language routine for printing the contents of the 6502 registers. Each time REG.DUMP is called, it prints a line with the values of the A, X, Y, and P (Status) registers in that order. Note that the register state is preserved. This routine directly accesses your printer interface card registers, but it will work with all parallel cards recognized by the Pascal BIOS. What I'd really like to see is someone find the table of device driver addresses so that I could do Unit I/O to all devices from assembly language. (Any takers?)

COPY.TEXT - Tren Ward
Do you have a one-drive system? Do you not back up as often as you should in order to avoid getting swapper's wrist? Well, this program is for you. COPY is a stand-alone utility to replace doing a T(ransfer in the Filer. The advantage is that only four disk swaps are required instead of twelve. Tren reports that the total copying time is also cut by a factor of three, from six minutes to two. The reduced number of swaps is possible because the Filer is a large program, while COPY is small and leaves most of memory free for buffering disk data

LANDER.TEXT - Rosenthal
This is an all-text version of the early-classic lunar lander game. Use paddle 0 to control your vertical thrust, paddle 1 for your horizontal. Each game starts with random altitude and velocities. LANDER is not much more complicated than the version for my HP-25 calculator, but the status displays are handled very nicely. This would make a good starting point for a program including graphics, or you can just see how the text screen is updated. LANDER is from the San Antonio Appleseed User Group and reached PIG via an exchange with the Dallas Apple Corps/Fort Worth Apple User Group. (One of the first and best versions of lunar lander ran on a PDP-8 with a round display screen and a light pen. If you landed close to the target spot, you were able to get out and walk to the McDonald's there for a hamburger. If you landed ON the golden arches, you were reprimanded "You idiot, you just demolished the only McDonald's on the Moon!")

Thanks again to all contributors, and let's hear from some new people! Surely the excitement of a new PIG disk is enough to spur you to help fill the next one and get it out the door!

Michael Hartman   PIG Librarian   June 1984

DOMs, IAC, Personal Domain and **EAMON** disks are available to Mini'app'les members at meetings for $5/disk or any DOM may be ordered by mail for $6.00/disk. Send orders to:

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