MULTI - FUNCTION USER GROUP MONTHLY NEWSLETTER - PUBLIC DOMAIN LIBRARY DISCOUNT BUYING SERVICE FOR HDW & SFTW

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Editor: James Notini Copyright @ 1985 - 1993

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FROM THE EDITOR'S DESK

by Jim Notini

Welcome, ADAMites, to another exciting and jam-packed issue of the N.I.A.D. Newsletter. Once again we're a little late, but better late than never I always say and now with a little over a month to put the April / May issue together I should have plenty of time to get back on schedule for a change.

In this issue you will find the return of the N.I.A.D. Product List starting on page 20. We had removed the product list back in the November issue as one means to try and cut costs, but due to overwhelming response from our members we have decided to continue the listing in each and every issue from here on. Ask and you shall receive. You will also notice in the product listing that we no longer have available for purchase dot matrix printers, modems and monitors. The reasoning for us dropping these products is simply that we can not even come close to offering these products at the prices computer stores and large mail order companies are selling them at now. However, we still keep abreast on what is available in the case that you need a little guidance in choosing the right dot matrix printer, monitor or modem for use on the ADAM Computer.

ADAMCON 05 is fast approaching and we have all the latest details in this issue as they were supplied to us by the convention chairman Alan Neeley. As has been reported previously in our newsletter, ADAMCON 05 is being sponsored by ADAMLink of Utah and the ADAM News Network and it will be held in Salt Lake City, Utah starting on July 22nd and ending on the 25th at the Olympus Hotel Convention Center. Alan has remarkably been able to hold the line as far as delegate fees and we should all commend him for this accomplishment.

Unfortunately, I will be unable to attend this year's convention due to the fact that I have recently started a new job and will not be able to get the necessary time off. I am still, however, keeping my fingers crossed that by some lucky chance I will be able to get the time off, but if not I know the convention will be a huge success even without my presence!! Being a veteran of two ADAMCON's, I would strongly urge any and all ADAMites who are thinking of attending this convention to make it a priority. There is not one person whom I have talked too that was disappointed or regretted attending one of the four previous conventions.

Also in this issue you will find a slightly reduced listing of special sale items that is left over from the December / January issue. These sale prices are valid for N.I.A.D. members only and are valid until in-stock supplies last. Once the in-stock supplies have been exhausted the standard retail prices will go back into effect. Some of our members have questioned whether we were going to continue handling these sale items once stock levels were exhausted, the answer is simply yes and no. Some products will be dropped, but the large majority will continue to be available through N.I.A.D. We just started our spring cleaning project a little earlier than in past years.

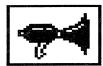
Many of you have probably noticed that there haven't been too many product reviews over the last couple months. This doesn't mean that new products aren't being developed and released because there have been a number of new items released over the last couple of months. With us falling so far behind with the newsletter, we have had to cut some corners in order to get back on schedule and some product reviews have been bypassed in order to do so. However, starting with next month's issue, we should have a number of new reviews thanks largely in part to one of our members, Tom Lee, volunteering his services. Tom is a long time ADAMite who is very knowledgeable in the operation of the ADAM in CP/M, T-DOS and E.O.S. and his opinions and reviews should prove to be required reading.

There are also a number of new software packages in the works that should see the light of day at ADAMCON 05. Rich Drushel, the author of SmartBASIC V1.x and ADAMLink V, has been hard at work developing a new Super E.O.S. that will give access to all the know ADAM hardware products without having to run multiple patch programs to get everything running properly. Scott Gordon is still busy at work on his adventure / role playing game entitled Dragon Master (watch out for this one, what I saw of it at ADAMCON 04 was breathtaking and it has been improved upon vastly since then). There will also be many more surprises in the coming months for us ADAMites as far as new software releases. And let's not forget the new CP/M Public Domain volumes by Guy Cousineau that are reviewed in this issue!

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N.I.A.D. SPECIALS

MEMBERS ONLY - LIMITED SUPPLIES - PHONE FIRST TO RESERVE



MICRO INNOVATIONS

FLOPPY & HARD DISK DRIVE SPECIALS

M.I. 5 1/4" 320K ADAMnet FLOPPY DISK DRIVE	\$189 ⁹⁵
M.I. 3 1/2" 720K ADAMnet FLOPPY DISK DRIVE	\$22995
M.I. 3 1/2" 1.44Mb ADAMnet FLOPPY DISK DRIVE	\$26995
M.I. PowerMATE 20Mb IDE HARD DISK DRIVE	\$269 ⁹⁵
 M.I. PowerMATE 40Mb IDE HARD DISK DRIVE 	\$359 ⁹⁵
M.I. PowerMATE SLOT #2 HARD DRIVE INTERFACE	\$24.95
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NOTE: Phone Orders Only are note required on the abo	

NOTE: Phone Orders Only are note required on the above products from Micro Innovations and there are no other stipulations applied to these product specials. Only the products listed below and on page 3 require a phone call or order first to reserve the product(s).

SEGA MASTER SYSTEM

Sega 8-Bit Master System with Control Pad, Control Stick, Light Phaser, 3-D Glasses, and 25 games: Afterburner, Alien Syndrome, Astro Warrior, Double Dragon, Gangster Town, Global Defense 3-D, Golvellius, Hang-On/Safari Hunt, Marksman/Trap Shooting, Miracle Warriors, Rambo II, Rambo III, Outrun, Parlour Games, Posedien Wars 3-D, Quartet, R-Type, Shanghai, Shooting Gallery, Space Warrior, Teddy Boy, Thunderblade, Vigilante, Wanted, World Grand Prix. All games include original box and instruction manual and all items are in mint condition. Call first to insure availability. All the above for the price of only:

\$150.00 - FIRST COME, FIRST SERVE

FOR SALE BY OWNER

⇒ ADAM Computer w/ Printer, 64K Memory Expander, Parallel Printer Interface and Cable, spare keyboard, Expansion Module #1 - Atari 2600 Adapter, Coleco 5 1/4" 160K Disk Drive, 2 Super Action Controllers, 8 Hand Controllers, 1 - 60 and 100 count 5 1/4" Disk Storage Case, ADAMCalc, SmartBASIC V2.0, GraphixPAINTER, ExperType, Electronic Flashcard Maker, Hacker's Guide to ADAM Vol. I, Addictus, Pro Golf Champ, 10 game disks with most with multiple cartridge games, 17 Coleco cartridges: Zaxxon, Lady Bug, Smurf, Mouse Trap, War Room, Cosmic Avenger, Donkey Kong, Donkey Kong Jr., Space Panic, Blackjack / Poker, Star Wars, Centipede, Venture, Super Action Baseball, Space Fury, Rocky and Q*bert, 33 Atari cartridges: Volleyball, Chopper Command, Q*bert, Sky Jinks, Ms. Pac-Man, E.T., Frogs & Flies, Bump'N Jump, Spiderman, Popeye, Vanguard, Star Wars, Enduro, Arcade Golf, Pole Position, Kool-Aid Man, Cross'N Bow, Galaxian, Berzerk, Air & Sea Battle, Bowling, Space War, Sneak'N Peak, Amidar, Combat, Defender, Missile Command, Trick Shot, Asteroids, Video Pinball, Dodge'Em, Gravitar and Superman, Contact: Frank R. Gombos, Jr. - 12256 Avon St. - Granger, IN 46530 - (219) 277-2756.

⇒ ADAM Computer w/ all manuals software & cables, 2nd Digital Data Drive, extra Keyboard, blank DDPs, ribbons, Expansion Module #1, ADAM Accessory Kit, ADAM Home Software Library, SmartLOGO, ADAMCalc, Electronic Flashcard Maker, Flash Facts: Vocabulator & Flashbacks, Expertype, SmartFILER, Telly Turtle, Super Zaxxon, Dragon's Lair, Jukebox, Adventure Pack #1 and #2, 14 Coleco cartridges, 23 Atari 2600 cartridges and 9 computer books. Call: (312) 921-1977.

ASKING \$300.00 OR BEST OFFER!



N.I.A.D. PROCEDURES



- ⇒ N.I.A.D. is published bi-monthly and mailed at the beginning of the second week of each odd numbered month by the Northern Illiana ADAM User's Group. Individual issues may be purchased for the current months or a backissue for \$3.00 (always check Product List for current pricing). The Feb. / March issue of N.I.A.D. is the 94th issue published by N.I.A.D., there are 93 preceding issues. When ordering backissues, please specify the number of the issue, month and year.
- ⇒ The standard membership rate for 6 issues is \$22.00 USA First Class and \$26.00 Canadian First Class and it's possessions. Contact us for membership rates outside of these areas.
- ⇒ N.I.A.D. welcomes contributions of original reviews, programs, articles, questions, suggestions and comments. Please include a SASE (Self-Addressed-Stamped-Envelope) if you want a written reply. Also, any contribution sent in on DDP or DISK will be eligible to receive a Public Domain program or volume in return at no charge!
- ⇒ Your N.I.A.D. member ID number is on the first line of your mailing label (affixed to the newsletter). The first four digits are the month and year of the final issue in your current membership. Please check this number each month to insure that issues are not missed.
- ⇒ N.I.A.D. will not be held liable for any issues missed due to an address change which we are not informed of. Please send this information to us as soon as possible so as not to cause any type of difficulties. Also, include your member ID number any time that you send us any kind of letter, package or order.

- → N.I.A.D. accepts advertising for ADAM related products and services. Cost is \$35 for a half page ad and \$60 for a full page ad for one month. Contact us for multi-issue discounts. Well over a thousand ADAM owners receive our newsletter each month and many more get to see it second hand. You may send in your ad in either SmartWRITER, SpeedyWRITE, PowerPAINT, PrintWORKS, other ADAM formats, IBM ASCII or IBM PUBLISH IT! DTP format files or even supply us with a high quality print out for reproduction in the newsletter. N.I.A.D. reserves the right to not advertise certain products or services which may be offered.
- ⇒ If 0293 or 0393 are the first four digits in your member number, this is the last issue you will receive in your current membership, It is time to renew your membership to insure that you do not miss an issue.
- ⇒ N.I.A.D. welcomes software developers to submit their programs for us to evaluate for possible commercial sale. Send in your products for us to test and to review in the newsletter. N.I.A.D. offers a 50 / 50 split of the sale price on all items that we handle distribution of for all developers. You will find that this is one of the best offers around in the ADAM community. We will also publish a review on the product as soon as possible and handle distribution of demo copies.
- ⇒ We have exercised due care in the preparation of this newsletter. No warranty, expressed or implied with regard to the information contained herein is given, either by interpretation, use or misuse. The opinions expressed herein do not reflect those of the editor or staff unless noted.

WAS SALE



N.I.A.D. NEWS & UPDATES



⇒ ADAM MAP: STATES VOL. #6, by Harrison Productivity, contains a bug in the Georgia state file that subsequently causes the ADAM MAP: U.S. ATLAS program to lock-up. For those members who have ordered and are waiting to receive this state volume, we apologize for the delay and should have all orders filled by the time you receive this issue.

- ⇒ JAMES POULIN, a long-time ADAMite, is the new Newsletter Editor of the Metro Orlando ADAM User Group. He has filled the vacancy left by the departure of Pat Herrington (who now writes articles for the 463 ADAM Newsletter) and has already published his first issue. Please direct all future correspondence to Mr. Poulin at the following address: M.O.A.U.G. Editor c/o James Poulin 1146 Manatee Dr. Rockledge, FL 32955.
- ⇒ PUBLISH-IT PIX has been released by Bob Sebelist of The Maine ADAM Library. These are full sized pictures, frames, borders, corners, and billboards for use with the ADAM and a dot matrix printer. It is useable with all the popular art programs, including SmartPRINT Plus. Subjects of all sorts are covered through picture display. 43 volumes have been put together into one package providing you with over 750 wonderful additions to your graphics library. As a special, included are portraits of the United States presidents from George Washington to George Bush. This introductory offer will be available through the next ADAMCON in Salt Lake City. The special introductory price is ONLY -\$50.00 which includes all shipping and handling. So, act now and take advantage of this wonderful opportunity to expand your graphics library. Send check or money order to: Bob Sebelist The Maine ADAM Library P.O. Box 85 Waterford, ME 04088.
- ⇒ **ADAM REPAIRS** are available through the following four companies:

ADAM's HOUSE
c/o Terry Fowler
Rt. 2, Box 2756
Pearland, TX 77581
(713) 482-5040
(,

ELLIOT REPAIRS c/o Dan Elliot Rt. 1, Box 117 Cabool, MO 65689 KOSOWSKY'S ADAM REPAIR

c/o Phil Kosowsky 6067 Jerusalem Dr. Cicero, NY 13041 (315) 699-6456

OSCAR'S COMPUTERS

c/o Howard Pines

224 F. Elgin Parkway

Fort Walton Beach, FL 32548

(904) 862-1007

- → WAYNE'S TRAINS has been released by Wayne Blackmer of Loco Software. Wayne's Trains is a huge collection (3 disk set) of SmartPAINT format pictures files depicting exact replicas of 7 Diesel Engines, 6 Steam Engines, and 12 different R.R. Cars. Also included are 5 Engine clips and over 150 railroad related sprites. The files on Wayne's Trains can be used with PowerPAINT, SmartPRINT Plus, P.C.U., S.L.P., The Label Works, The Print Works and many other ADAM graphic programs. Wayne's Trains is available now for the price of only \$19.95. Watch for a review in the next issue of N.I.A.D., this is a fabulous package which will especially appeal to train hobbyists.
- ⇒ WALTERS SOFTWARE CO., owned and operated by Jim Walters, has acquired the distribution rights to the following Colecovision cartridges from TeleGames USA: Dance Fantasy, Galaxian, Meteor Shower, Dragon Fire, Logic Levels, Fall Guy, M.A.S.H., Frantic Freddie, Memory Manor, Monkey Academy, Q*bert's Qubes, Super Cobra, Video Hustler, Montezuma's Revenge, Sir Lancelot, Telly Turtle, WizMath, Mr. Do's Castle, Spy Hunter, Tutankham, Yolk's On You, Oil's Well, Star Wars, Up 'N' Down, Campaign '84, Rolloverture, Tapper, Dam Busters, Gust Busters, Sewer Sam, Threshold, Strike-It and more. Watch next month for further details or contact Walters Software Co.

OVERSTOCK CLEARANCE SALE

Listed below is an array of software, hardware, supplies and book specials for the ADAM Computer System. These sales prices are valid while in-stock supplies last. Once in-stock supplies have been sold out on, standard retail prices will go back into effect. If you are mailing in an order please call first to insure that the item(s) are still available at sale price. All these products will continue to be available through N.I.A.D. but never again at these reduced prices.

	WAS	SALE
EDUCATIONAL SOFTWARE:	.	40.00
• E.F.M. FLASH FACTS: HISTORY by Coleco	\$6.95	\$2.95
 STATES RACE by Hal Weber Software 	\$15.95	\$5.95
ENTERTAINMENT SOFTWARE:	* 40.05	40.05
ADDICTUS by Reedy Software	\$19.95	\$9.95
PHRASE PAK I by Reedy Software	\$12.95	\$4.95
REEDY ENTERTAINMENT PACK by Reedy Software	\$15.95	\$5.95
STAGE FRIGHT by Reedy Software	\$15.95	\$5.95
 STRATOZAP by Allied Creative Engineers 	\$16.95	\$6.95
 SUPER ZAXXON by Coleco Electronics 	\$9.95	\$4.95
● U-MATCH-EM by Phoenix 2000	\$14.95	\$4.95
HOME & BUSINESS SOFTWARE:		A
 APPOINTMENT BOOK by The Maine ADAM Library 	\$24.95	\$9.95
 LABEL WORKS, THE by Walters Software Co. 	\$24.95	\$14.95
 MisSPELLER by Walters Software Co. 	\$9.95	\$4.95
 PRINTWORKS, THE by Walters Software Co. 	\$24.95	\$14.95
 RECIPE FILER by Coleco Electronics 	\$9.95	\$4.95
 SHOWOFF II by Digital Express Inc. 	\$14.95	\$4.95
 SmartBASIC V1.x by Drushel Software 	\$29.95	-
 SmartFILER by Coleco Electronics 	\$9.95	\$4.95
 SmartLETTERS & FORMS by Coleco Electronics 	\$9.95	\$4.95
 SmartLOGO by Coleco Electronics 	\$15.95	•
 SmartTERM V1.02 by Keheo Software 	\$15.95	\$5.95
MEDIA UTILITY SOFTWARE:	_	
 ADAM'S DESK TOP by Walters Software Co. 	\$34.95	•
BACKUP 3.0 by M.M.S.G.	\$10.95	-
 DECIMAL DISASSEMBLER by Walters Software Co. 	\$19.95	\$9.95
 RAMBOOT by Walters Software Co. 	\$19.95	\$4.95
ADAM BOOKS:		
 ADAM GLOSSARY by The ADAM News Network 	\$4.95	\$2.95
 BASIC PROGRAMMING TUTORIAL by ADAM's House 	\$14.95	
BEST OF ELECTRONIC ARTS MANUAL by Coleco	\$4.00	\$2.00
● FROM BASICS TO BASIC W/ ADAM by Roadrunner	\$19.95	\$9.95
HACKER'S GUIDE TO ADAM VOL. II by Hinkle Publ.	\$11.95	\$5.95
 LEARNING TO READ WITH ADAM by Roadrunner 	\$24.95	\$14.95
● UNCOMM. DIS. OF ADAM EOS7/SB V2.0 by Road.	\$24.95	
 UNCOMM. DIS. OF SmartBASIC V1.0 by Roadrunner 	\$15.95	\$4.95
ADAM SUPPLIES:		
 ADAM 256K RIGHT DIRECTORY DIGITAL DATA PACI 	(\$1.00	\$.50
● ADAM DUST COVER: EXP. MOD. #3 CONSOLE	\$8.95	\$4.95°
● PANASONIC KX-P115 OR KX-P145 RIBBON	\$12.95	\$6.95
ADAM HARDWARE:		,
ADAM PRINTER POWER SUPPLY		\$24.95
ADAMLink 300 BAUD MODEM		\$24.95
● ADAMnet 7ft. CABLE		\$1.95
M.I. 64K MEMORY EXPANDER		\$19.95
● M.I. RS-232 SERIAL CABLE	\$14.95	\$9.95



Hey ADAMites! This is your convention chairman for ADAMCON 05 inviting you to Salt Lake City this summer to attend the fifth international ADAM convention held for ADAM owners (the first one West of the Mississippi) and to celebrate the tenth year since the introduction of the ADAM computer onto the PC scene.

Of course, the popular attractions from previous conventions will be repeated this year. Informational sessions (with topics like: Telecommunications, Graphics, SmartLogo, Geneology, and lots more!) will be jammed together into a 3 day schedule. All this including the customary banquet dinner, door prizes, the ADAM Store, plus ADAM displays, and an ADAM library. Vendors committed to attending include: HLM/GMK Hardware/Software Co., Bonafide Systems, and ADAM-LINK of Utah. Well known ADAMites planning to come: Bart (Zonker) Lynch, David Cobley, Robert Sebelist, Richard & Francis Clee, Dean Roades, Ron Mitchell, Ron Collins, Patricia Herrington, plus much more to be added!

CONVENTION PACKAGES

Full Delegate \$245.00 (Includes 4 nights at Hotel, 3 Breakfasts, 2 Lunches, 1 Dinner, 1 Banquet Dinner, and admission to all convention events. Also includes free T-Shirt if paid in full by April 22nd.)

Non-Delegate Spouse \$190.00 (Includes 4 nights at Hotel, 3 Breakfasts, 1 Banquet Dinner. Additional meals available upon request.)

Three Day Delegate pass ... \$ 80.00 (Includes 2 lunches, 1 Banquet Dinner, and admission to all convention events. Additional meals available upon request.)

One Day Delegate pass \$ 30.00 (Good for 23rd or 24th of July. Includes 1 lunch and admission to convention events scheduled for one day.)

Final Day Delegate pass ... \$ 40.00 (Good for 25th of July. Includes banquet dinner and admission to convention events scheduled for the day.)

Contact Alan Neeley at ADAMCON HEADQUARTERS for child packages, camping arrangements, or payment plans. More information concerning the convention will be released as it becomes available. To keep up on the very latest information as it is released, you can call the SLC ADAM-LINK BBS, call Alan during the weekdays, or write to the address above.



IT'S A CONTEST!!!





Hey ADAM delegate!

Here is a chance to save some money on a convention package for the fifth international ADAM convention and help settle a controversy at the same time!

What should be the official name for the convention? Should it be ADAMCON 05? Or should it be ADAMCON V? Maybe something else? Send in your vote to convention headquarters by March 31st, 1993 and receive a coupon which can be used for one of the following:

\$10 off any convention package if entry is received by February 28th, 1993.

\$5 off any convention package if entry is received by March 31st, 1993.

\$5 off any purchase through ADAM-LINK of Utah at the ADAM Store during the convention (July 22nd-25th 1993).

Limit one entry per delegate. Not valid with any other offer.

Want to save more? Send in a brief paragraph stating the reason why you have chosen the name that you have voted for. The three best reasons will win an additional coupon which can be used for one of the following:

\$20 off any convention package if entry is sent in by March 31st, 1993.

\$20 off any purchase through ADAM-LINK of Utah at the ADAM Store during the convention (July 22nd-25th 1993).

To participate in the contest and receive credit for the coupon, do the following: Include your name, complete address, and phone number on a blank piece of paper. Be sure to include your choice for the convention name and the reason why you have selected the name you did. Send your entry to:

Alan Neeley ADAMCON HEADQUARTERS 2337 South 600 East Salt Lake City, Utah 84106

Contest ends March 31st 1993. Value of coupon will depend on the post marked date of entry if sent in with complete payment towards a convention package by April 22nd, 1993. Otherwise, it's value can be redeemed through ADAM-LINK of Utah at the ADAM Store.



	REET:STATE. 71P.
	[Y: STATE:ZIP:_
rni)ME #:
	<please and="" complete="" return="" survey=""></please>
	ADAMCON SURVEY
	1. Have you attended an ADAM convention before?
	2. Do you plan to attend this year's convention? Yes No
	If not, why? [] No longer own an ADAM. [] Have other plans.
	Can't afford to attend. Not interested.
	Other reason
	If you have answered NO to question two, there is no need to continue but PLEASE still return SURVEY!
	3. Please list your three main reasons for wanting to attend an
	ADAM Convention:
	a b
	c
	4. Please list 5 topics you would like to see covered in informational sessions during the convention:
	a
	b
	d
	e
	5. Do you plan to sell ADAM products at the convention? [] Yes [] No
	6. Do you plan to demonstrate ADAM products at the convention? [] Yes [] No
	7. Will you be representing a User's Group at the convention? ☐ Yes ☐ No If yes which one?

Thank you for completing survey. It will be very helpful when planning this year's convention. Please return to address below as soon as possible.





N.I.A.D. NEWSLETTER

FUNDEMENTALS OF COMPUTER PROGRAMMING

Chapter V - VII: Data Manipulation, Subroutines & Flowcharting by John Y. Terry, Sr.

CHAPTER V: DATA MANIPULATION

The data manipulation section is the part of the program where the arithmetic and most logical operations occur. Moving data from one place to another is also accomplished here.

If a sequence of instructions is to be used more than once, it is best to put that sequence in a subroutine. This will save programming time and reduce errors.

Keep mathematical equations as simple as possible. Remarks will help to identify what is occurring and why.

Use linear programming (one instruction per programming line) as much as possible in this section as linear programming is easier to debug or change later.

Most of the programming errors will occur in this section of the program. It cannot be overemphasized that simplicity is the key to good, and easily understood, programming.

Be sure to use the instructions of the programming language properly and understand what an instruction is doing. Don't depend on what you think should be happening; be sure.

Ensure that you understand the way the programming language acts on a mathematical equation, and use the instructions accordingly.

Be sure that the elements of the equation are properly expressed and in the correct order for the programming language to operate on the equation properly.

Ensure that the returns from the subroutine are at the proper instruction line. Most computer programming languages will return from a subroutine to the instruction following the instruction to branch to the subroutine. Be sure you understand what your particular computer is doing and why it is doing it the way that it is.

CHAPTER VI: SUBROUTINES

Subroutines are probably the programmer's most useful tool since you can use them over and over within a program.

Any routine that will be used more than once should be put into a subroutine. A subroutine can even be executed from inside another subroutine. Be sure that you understand how to use more than one level of subroutine (nested subroutines.)

By saving copies of all subroutines, a file of program subroutine modules can be made. Later these modules can be used in other programs. This is known as Modular Programming. Often large programs are written in modules by many different programmers; later these modules are put together to form the final program.

As in data manipulation, keep the subroutine as simple as possible. This simplicity is not for the benefit of the computer, which can handle very complex operations, but for the programmer.

Avoid unconditional branch or GOTO instructions from within a subroutine. Improper exiting from a subroutine will throw off the computer's ability to keep up with the program. It is possible to exit a subroutine with an unconditional branch instruction, but further programming will be necessary to reset the markers that the computer uses to keep up with the program's next instruction.

When nesting subroutines (going from one to another) be sure that you are aware of your computer's limitations in handling nested subroutines. Nested subroutines are sometimes very difficult to debug. Remember that the computer returns to the next sequential instruction following the instruction branching to the subroutine. This is also true of nested subroutines.

CHAPTER VII: FLOWCHARTING

Flowcharting is the graphic displaying of a computer program or system.

Flowcharting is accomplished by using a flowcharting template and imagination.

To properly appreciate this chapter, it will be necessary to obtain a flowcharting template from a stationery store or office supply store. The templates are not very expensive and are reusable.

Once you have obtained a flowcharting template, notice that each of the cut-out figures is labeled ("Terminal", "Decision", etc.)

The oblong "Terminal" is normally used to identify the start and end of the program.

The rectangular block "Process" is used to write what is happening (movement of data, arithmetics, etc.)

The offset box labeled "Input/Output" is used to identify the input to or output from the program.

The other cut-outs are self-explanatory.

To use the flowcharting template, draw around the desired cut-out and write what is happening. The next cut-out should be placed below or beside the first depending on the direction of the flow of the chart. Continue drawing around the cut-outs and moving the template until you have the program displayed on paper in picture form.

Draw connecting lines between drawn cut-outs and use arrowheads to indicate the direction of flow.

Write your program to conform as closely as possible to the flowchart.

When corrections are made that cause the flowchart to change, redraw the flowchart. It should always agree with the program. If additions are made to the program, redraw the flowchart.

The flowchart, any notes that may have been made, and the printed program make up the basic program documentation.

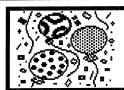
The better the documentation, the easier it will be at a later date to go back into the program and make changes or corrections.

Keep the documentation of a program in a file folder labeled with the same title as the program.

When any changes are made to the program, document the changes and include this in the documentation package.

One other item that should be included in the documentation package is the operating instructions for the program.

(CONTINUED ON PAGE 16, COLUMN 1)



'BRUSHING UP' ON PowerPAINT

So Many Options, So Little Time by Pat J. Herrington

I've written articles before about using PowerPAINT brushes to make shading and patterns in your pictures, but I haven't yet told you about my favorite brush, because I only recently discovered it. (Even though I designed the brush myself I didn't know just what a handy little critter it really is!)

The brush I am talking about is found on POWER TOOLS, and it really makes it easy to put "half-tones" in your pictures. It is part of the set of brushes I called "Detail-A*". It's the fourteenth brush in the set. After you load the set and go into "PAINT GRAPHICS" mode, choose the option for "SELECT BRUSH" and scroll through until you reach #14. The screen will show you the 8x8 pixel checkerboard shape I use to get a half-tone pattern.

If you "paint" with the brush using the default setting, it will print that same shape every 16 pixels (and because it is only 8 pixels square, it will leave an 8 pixel blank space between each shape.) To use the brush for filling in with half tones, you could change the pixel increment to 8. This would allow you to draw a continuous row of checkerboard.

But if you want to fill in an irregular shape, you can get really good control by changing the pixel increment to 2. That will allow you to draw in tight corners with very little "overspill". In fact, if you're paying attention, the most overspill you will likely get is 1 pixel too few or too many, and that's easy to correct.

When you are using brushes, you kind of have to guess where to start until you get used to how they work. You will always start out in the upper left hand corner, and (with the mode UP!) move to where you think you should start. If you don't like the results, it's easy to hit UNDO and return to the main menu with your original drawing intact. Even if you DO like the results so far but don't know how much you'll like what you do next, stop and go back to the MAIN MENU from time to time. Then, next time you hit UNDO to erase an error, you will delete only what you have drawn since the last time you went back to the main menu, and not ALL your work up to that point. Every time you return to the main menu and then go back into Paint Graphics, you will be starting out from the upper-left hand corner again.

Now, you can always draw a pattern with every other pixel turned on by using Draw Foreground and setting the pixel increment to 2. But this won't give you a true half-tone, because it doesn't alternate by rows. What you will get, instead of a checkerboard, is a sort of grid, more like a pegboard or a window screen. Every second pixel will draw, but only on every other row; the results are QUARTER tone instead of half tone.

Well, hey, sometimes that's what you WANT, in which case you don't need to use a brush. But sometimes you would rather have the checkerboard pattern.

Actually, you CAN make the checkerboard pattern from Draw Foreground. There are two ways to do it. First, you could set the pixel increment to 2 and draw a row, then change it to 1 and move your pen down 1 pixel and over 1 pixel, and set it back to 2 to draw the second row. If you repeat that process over and over, you will have a checkerboard pattern.

The other way is to just leave the pixel increment at 1, and just draw every other pixel. You'd use your right hand to hit the arrow keys, with your left hand poised over the SmartKEY which toggles the pen up and down (or draw and erase, whichever you like best.) Then alternate modes each time you strike an arrow key. If you try it, you'll find it doesn't take long to get the rhythm.

If you don't own POWER TOOLS, try one of these other methods. But if

you do, I think you will find it much easier to use the brush. For one thing, the brush fills in an entire 8x8 area with no real effort on your part; it's just faster.

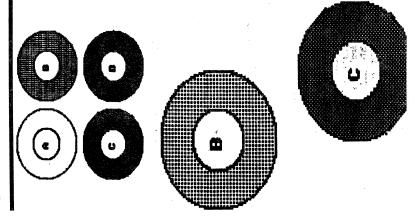
And because it's faster, I also prefer to use a brush to fill in solid areas. You can use ANY brush to do this, but I like to use one of the smaller brushes on POWER TOOLS because they are easier to manipulate without "overspill". If you set the pixel increment to 1, you will get solid lines of whatever size the brush happens to be. For instance, if you use the same brush (#14) we have been talking about, you will get a line that is 8 pixels wide (and/or 8 pixels deep, depending which direction you are moving)... but you can stop it anywhere you like; your control is just as fine using this method as it would be from the Draw Foreground menu.

I've included some illustrations to show you the results of the various methods. Figure A shows an outline of a tire (or bagel, maybe.) Figure B shows the same shape filled in from the DRAW FOREGROUND menu, using a pixel increment of 2 (what I call "quarter tone".) Figure C shows the same shape filled in with Detail-A* brush #14 (half-tone); I used a pixel increment of 2 here. I used the same brush to fill in Figure D, but I used a pixel increment of just 1.

I've also printed out the same figures at double width and double height, so you can really observe the difference between Figure C and Figure D. (This larger printout also shows where I made some small errors. I am not going to correct them for this article, but if this were something I wanted to be just exactly right, I would go back at this point and fix them up. This double high/double wide printout is a great way of checking your work before finalizing it. But in this case, I want it to be perfectly clear that I don;t always get everything perfect the first time, either!)

If you aren't aware of it yet, you can get a double high/double wide printout of any screen you like by the following method: After hitting the PRINT key, and selecting PRINT SCREEN, you are given the choice of printing DRAFT or MORE OPTIONS. Choose MORE OPTIONS, and when you are prompted for width, enter 8 and hit <RETURN>. You will be prompted for a starting point (0 will start the printout at the far left edge of the paper, and 4 will end up at the far right edge of the sheet.) Specify DARK HARDCOPY, and choose DOUBLE LENGTH. I use this method of printing only when I want to see where I have misplaced a dot, but it is truly invaluable for that purpose!

Now that I think of it, there is most likely a checkerboard pattern brush on the PowerPAINT medium itself. I don't use those built-in brushes much; they are too big for many purposes. But they will behave the same as the smaller ones on POWER TOOLS, except that they will not be as easy to use in small areas. Go ahead, check them out and see!





WORKING WITH SpeedyWRITE

Part I: First In A New Series by David Sands

Making the transition from one word processor program to another is basically a process of learning new commands and forgetting old habits.

If there's a single determining factor for success, it's your frame of mind.

It's a truism in the teaching business that students learn best when they're ready to learn. I think it's the same with developing the combination of instinctive and mental skills that make using a word processor a natural, efficient process. With a willingness to learn, a clear, calm mind, and the documentation close to hand, any word processor can be mastered. If there's a single most important factor, however, it's that clear calm frame of mind. It does not hurt to have a good reason to learn, either. Since most of us are adults, we've got a lifetime of practice in learning behind us -- and most of what we learned best we learned because we had to, for some good reason or other.

Assuming you have a good reason to learn how to use SpeedyWRITE, and a learning frame of mind, let's start with the basics of mastering the program. If you haven't got a good reason to learn how to use SpeedyWRITE, I suggest that the almost universal satisfaction with the program that its users report would be a good place to start. This is a complete, fully featured word processor that runs on the ADAM exactly as does every other program you are used to, does not require anything special in terms of peripheral equipment, and will, when mastered, produce a more satisfying result with less time invested.

My comparisons throughout will be with SmartWRITER, which will be abbreviated SW, (and SpeedyWRITE will be abbreviated SPW) and will be made to show how to adapt your SW skills to SPW, or where the differences lie.

SPW comes with a comprehensive, detailed, 17 page manual. It's worth reading through, and keeping close. The layout of the manual may not meet your needs and my outline for this series is to teach SPW on a project basis; we will learn each command we need when the project requires it.

SpeedyWRITE is sold on disk or data pack. With either, insert it after the ADAM has been turned on and the 'Electronic TypeWriter' screen is up. Pull <Computer Reset> switch and the SPW graphic screen will appear. This will be replaced by a blue box frame on your white screen, (assuming you are using a color TV).

The top line of the box is the command line. The first of these is the question "D'ya Wanna Configure A Parallel Printer?" whose syntax probably reflects the youth of the program's author. Assuming you are using the ADAM printer, (and this series will be based on that printer) the response is 'N' on your keyboard. 'N' (or lowercase 'n') is also accepted.

Most command line responses in SpeedyWRITE are not case sensitive, a jargon phrase meaning they need not be only in uppercase, for example. There are some significant exceptions, which we'll discover when we need them.

Even if you've entered 'N', the next command line will appear as "Loading Config Files." This can be ignored and will be replaced by "Load Help Screens?". Respond "Y" here. The command line will now read "Loading Help Screens," and then will change to a line reading; "SW2 - Column 0 Bytes 24062."

The major significance of this at the moment is that we have now arrived at the word processing screen and can begin work. In reality, loading SPW, entering 'N' and 'Y' and getting to a working screen is a

brief routine.

Since one of the most common uses of word processors is writing letters, we'll write a letter. By the time we're finished, it'll be a very complex letter, but we will have used many of SPW's features.

SpeedyWRITE does not use SmartKEYs. Your memory, or the SPW documentation, has to replace them. Keep page 6 of your SPW manual handy: it lists all control codes in alphabetical order.

In SW, SmartKEY I is Margin/Tab, and pressing it cues a new set of Keys, I to VI, which allow setting and changing horizontal and vertical margins and page length. In SPW, all of these are set by Control-key combinations which are mnemonic, or memory-triggering.

Control-V is the SpeedyWRITE equivalent of SmartKEY I. Pressing it immediately allows you to vary the margins SPW normally offers. These 'default' margins are perfectly useful for many chores and you may never need to change them. For our purposes, we do.

When we set the margins in SpeedyWRITE, or issue other formatting commands, we see only a letter on the screen with a block of the box color behind it, or an 'inverse' screen display. Further, with some exceptions, we don't see the result we want. Lets take our letter as a first example.

Pressing Control-V results in the top or command line changing to the words "Enter Formatting Variable"; nothing changes on the screen.

Assuming our paper has a letterhead that is quite deep, we need to have our return address and date start lower on the page than SPW's default settings would put it.

The ADAM printer will print six lines to the inch with its standard print wheel. Therefore a setting of twelve would give us two inches from the page top. Pressing Control-V creates a command line on the top frame of "Enter Formatting Variable". Since we want to alter the Top margin, and most of the formatting codes are mnemonic, we enter a T and then 12 with the number keys. The T will appear on the screen in an inverse block, the 12 will be normal.

SPW requires that all top margin changes be the first thing at the top of a page. If you want to start a page lower than the default setting of one inch, you must use Control-V-T(number). Do not use a space between a control mnemonic and a number in SpeedyWRITE. You'll notice too, that only the inverse T, not the V, appears on the screen.

With the top margin set, the first item in the letter is our return address and the date. And to practice more of SpeedyWRITE's formatting commands why don't we make this information flush right? -- that is, the three lines of type will each end at the right hand margin. However, and this is an important point to remember, you won't see the effect on the screen, but it will print out.

Again, Control-V is required for any formatting, then, the R key, then, without an intervening space, your return address material. In SPW, or any word processor, a space is a character just like any letter. When typing in your right justified material, make sure your Return symbol is abutting the last character, or a space will be printed, and your justification will look wrong.

The Return key will insert lines and advance the paper when printing, just as in SW. Let's insert four or five, and type an address. Since the address will be left justified -- lined up with the left hand margin -- it will (CONTINUED ON PAGE 16, COLUMN 1)



PUT IT IN WRITING!

Part IV: Control Character Options by Thomas J. Keene

This is a continuation of the discourse on the use of Eric Meyer's outstanding text editor VDE. This is not intended to be a documentary for VDE266, but rather an observation on the ways this versatile word processor may be used to your advantage.

In last month's article I mentioned a couple of things that I said I would discuss later. One of these is keeping track of the subterfuge grave accent characters (') where there are large numbers of them used in the text. As you recall, I mentioned the need to put a null in imbedded commands and to resort to substitute characters for those which are not available on your keyboard. There are a few control characters which perform unique functions in modern dot matrix printers, and in VDE itself, which may be required in an imbedded command. One such character is Control-J. This character is the code for Hexadecimal 0A (or decimal 10). It is the keycode used by the ADAM for a line feed and it is used by VDE266 to display the HELP menus. If you were to imbed a Control-J (^J) by pressing the control key and the letter P (which gives you a Control-P) and follow this by pressing the control key and letter J simultaneously, it will appear on your screen that you have succeeded in placing a Control-J in the text. And you can store it and it will be in the stored file. This is unlike a null, which you can't imbed no matter how you try. But this Control-J will banish if you recall the stored text to continue adding text with VDE. It simply won't be there. It vanishes just as a null does.

This may be devastating if you intended to set your left margin to ten, (which is 0A in the hexadecimal code). To get 0A you have to use the Control-J which issues the ASCII 0A to the computer. You may set your left margin to ten by inserting the imbedded command -- ESC I^J. ESCAPE I (as in left) is the code to set the left margin and ^J is the number 10. As I said, this will survive storage. To verify this, you can examine the stored file with DU-V87 and you can see that the 0A is right where you put it. But the next time you call up that file with VDE, it won't be there. So this is another candidate for the subterfuge grave accent character. One thing you can count on, and that is the grave accent character will not be lost in any manipulation with VDE. On any event, you may very well end up with ten or more grave accent characters interspersed in your text, and each of them may be holding a place for entirely different bytes. One may be to represent a null, another may be to represent the British Pound symbol and others could be stand-ins for the cents symbol or a French accented "e" and so on. So ten or twenty such grave accent stand-ins is not at all unusual. And there are a few times when the grave accent is to be used as itself. Not necessarily as a character to be printed, but as a decimal number 96. In this text I am now preparing, I have a right margin set for 96 (this is 60 Hex) and to set the right margin I imbed an Escape-Q followed by the number of characters I want the margin to be set for, that is ESC-Q'. OK, here I want that grave accent to stay there unchanged.

So it might get bewildering keeping track of which grave accent is used for what. This really isn't as difficult as you might think. You may recall that last month I recommended making a backup copy of your text so that you would have two identical file on your disk, one with the file extension of BAK and the other with TXT. And to do that, you bring the text file (APRIL.TXT was the name I used) into the VDE memory and then immediately save it with no changes. At the time when the file (APRIL.TXT) is brought up on your screen (before saving it) would be an excellent time to inventory all the grave accents and make a note of what each one is used for and in the proper sequence.

If your cursor is not at the top of the file, you can put it there with Control-QR (^QR). So when your cursor is at the top of the file, initiate a search for the grave accent character. To do this, hit CONTROL-QF (^QF). The header will now prompt you with this: FIND:

Enter the grave accent character and the cursor will immediately jump to the first grave accent character in the text. You will recognize what its function is in that location, so I suggest that you write a note on a sheet of paper with the number one followed by a command such as NC (for no change) or with a comment like "change to null" or "change to 9C". 9C is the ASCII code for the Pound Sterling character. If a grave accent is used to mark a Control-J you might note "change to 0A". You may have a lot of No Change comments but just jot them down in the order they appear. Oh yes, I overlooked telling you the exact procedure. After you find your first grave accent (and have made a note of its function) just hit Control-L (^L) and VDE will find the next occurrence of a grave accent. After finding a grave accent and noting what it is for, hit Control-L (^L) again and again.

VDE will parade down through the text until there are no more to be found. The header will then display the comment "not found." To proceed you must remove the header prompt by hitting <ESCAPE>.

The nice thing, about this procedure, is that it finds all of them in the order that they appear, and in doing this, does nothing to alter the contents of the file in memory. When you save, you will still get two identical files on the disk, one will be a BAK file.

When you use DU-V87 to make these important changes to the backup file, you merely follow the procedure I outlined last month using the =' technique. In the article last month I discussed marking a block of text so that it may be printed out in hard copy. There are any number of reasons why you might want to identify a block of text. You may wish to delete it. As a rule, it is a very good procedure to unmark a block as soon as you have finished the need for it. For one thing, VDE doesn't permit more than one block to be marked at a time. If you later decide to mark a different block of text, the original block markers are automatically removed. The command to unmark a block is Control-K U (^KU). It is also possible to remove block markers in the same way you would remove any other item of text. VDE has a couple of control keys that might be used for this. A Control-G (^G) will delete the character to the right of the cursor. For removing a short marking command or any other short string, I would use the Control-G. There is a command to delete an entire word to the right of the cursor and that is the Control-T (^T). What is a word? VDE treats all of the characters up to the next space as a word. It removes all characters, including all spaces following the "word" up to the start of the next word. A bit of care is in order here or you may remove more than intended. I know that you're not supposed to hit a wrong key, but I have accidentally hit a Y instead of a T when deleting a word. This is a big mistake because Control-Y will delete the entire line! And while I am on the subject of block commands, the command to delete an entire block of text is Control-K Y (^KY). This also removes the block markers. I mentioned the ability to copy a block. If you copy the marked block with Control-K C (^KC) it will position the marked block wherever you have your cursor at the time. But the original marked block of text is still where it was, if you want to move a block of text to another location, that command is Control-K V (^KV). This will remove the marked block to wherever you have the cursor placed. The old location will no longer have the block. You can even move the marked block of text clear out of the body of text into a separate file. That is readily done with the Control-K W (^KW) command.

It should be noted that the filename, that you use to copy the block to, may be one that already exists. But if you do move the block to a file that already exists, it will be stored by that name but the previous file by that name will be wiped out. It is possible to append a marked block to another file on any designated drive, but it takes a two-step operation to do it. First, you move the file to a file on any designated drive with the Control-K W command. You will be prompted for a drive and filename

(and mode if you prefer to designate it). Once the marked block is stored as a file, you may then incorporate it into another file with VDE. Suppose you have a file by the name of TEST.ONE on the B:Drive. And let's assume that the filename you gave the marked block was TEST.TWO and that it is on the same drive as TEST.ONE. It isn't necessary that it be on the same drive. Now use VDE to open TEST.ONE and place your cursor where you want TEST.TWO to go. Use the command CONTROL-K R (^KR). As soon as you execute the read command, you will see a prompt in the header that says:

READ:

Here you enter the Drive and filename. In this example it would be B:TEST.TWO. That's all there is to it. The marked block will now appear in the file TEST.ONE at the location selected by the cursor. This is pretty powerful stuff! And the entire operation is fast and easy. If you use the read command and name a non-existent file, you will get a diagnostic in the header that says there is an I/O error. No problem, just start over.

There are about sixteen simple control commands. Many are of little value and some very useful. I refer you to the VDE266.DOC file for a complete discussion of all of them. I have already discussed some of the most useful ones such as Control-P, which is indispensable for imbedding printer control commands in your text. Without this facility, it would be impossible to direct the printer to ITALICIZE or do Double Width text automatically. Also, without the Control-P one couldn't control many of the printer codes. Of course, nothing like this is possible with SmartWRITER. I use the Control-V command often in my use of VDE. This is the one that toggles the insert function on and off. This is especially useful when one is editing text.

If a sentence doesn't read too clearly when you proofread your text and you wish to change it, just put your cursor at the place where you want to enter a new phrase, hit Control-V and insert as much as you need. Then turn the insert mode off by another Control-V. Then use Control-T to remove each word of the phrase to be discarded. Similarly, you can insert a character that might have been inadvertently omitted in typing. It's easy to type "you" when you intended to type "your". Inserting the missing "r" is easy with a Control-V (Insert) command.

I have discussed a number of the block commands (Control-K X) in this discourse. But, there is one I haven't mentioned which is very useful. That is the Control-K I command. If I execute it at this point I get the following information in the header:

Changed:Y File size:11402 Memory Used:9241 Free: 24210

This is telling me that the file has been changed since I last saved it. As a rule this would be Yes most of the time, but if you just execute a Control-S (save the file to disk but return to the place where we were last working) and then hit Control-K I (^KI) then the Changed: would be No. The next information is 11402. This is the number of bytes that the actual size of the file is. This is the size that a directory command (like SD.COM) would show the file size to be. It is the actual file size. But the next data tells me that the memory used in VDE is only 9241. The difference here is due to the fact that VDE has a built-in compression system that permits you to work with an 11.4K file but it only takes 9.2K of memory. And the last display tells us that I still have 24210 bytes of room for additional text in this file. This command is very useful to keep track of how your material is progressing.

I overlooked mentioning the Control-N command when I was discussing the control commands. That is strange, because it's one of the commands I tend to use frequently, while writing. Like most people, I like to type away as my thoughts come and pay little attention to whether or not I have exceeded the appropriate line length. Like just now! That previous line has 91 characters in it. But the way I typed it, it was 148 characters long. That, of course, wouldn't fit on any printer I won. So I went back and hit Control-N when the cursor was at the word "not". This started the next line with the word "not" plus all of the

characters that made up the overly long line. Frequently I will have a word at the normal end of line that is too long to fit and must be hyphenated. So I place my cursor at the character where the hyphen must go and insert it with Control-V after which I put the cursor at the first character after the hyphen and hit a Control-N. This terminates the line and the rest of the word is dropped down to the next line. Control-N is very useful indeed!

There are occasions when I would like to review the directory of files on one or more of my drives. The command for that is Control-K F (^KF)...I get a prompt in the header that asks what drive I want the directory of. I can specify any of the usual drives. I can look at the M:Drive and is there is nothing there it simply reports "No File". If I designate one of the Data Drives, VDE will give it a try. If there is no data pack in place I get a "Missing Media: Abort, Retry" message. I normally would choose Abort because I see no sense in retrying. I could put a data pack in the data drive and retry and that would work OK. I suggest that you don't use a data pack with an E.O.S. format. You will get the same diagnostic but it may be difficult to extract yourself from this situation. There is too much risk in losing what you have typed since your last save. If on the other hand you choose "abort" you are likely to become wrapped around the axle even tighter!

On the whole, I think the documentation for VDE266 is outstanding, but there are some commands that are not too clearly explained. One of these is the Control-K L (^KL). This is briefly dismissed with the comment "quits the current file and LOADS a new file to begin editing." True, but that needs a little amplification. If you execute the Control-K L (^KL), you are prompted in the header:

Abandon changes (Y/N)?

There really is no choice here. If you choose No, you are just returned to your present text just where you left off. The prompt suggests if you select No, it will close out the present file and store it as it is, with all the changes made since the last save. That's the way that prompt works when you try to save a file that hasn't been changed. In that case it saves the file and makes a backup of the same file. But not with Control-K L. If you opt for the only viable choice (Yes) then it prompts you with:

Load:

Here you enter the name of the file you want loaded and the screen goes blank, and the new file is loaded.

If you named a non-existent file, it opens a file by that name, but with no text. Just like opening up any new file. You are not likely to be using this command much, but if you do, make sure that you have saved your present file, so as to avoid losing any of the text added since your last save. Personally I would just close out a file and load the new file. It doesn't take long and it's more reassuring!

And this is an appropriate time to admonish you once again to make frequent saves. Don't let even a single paragraph be typed, without executing a file save. The Control-K S (^KS), is the one to use. This will save everything in memory and will quickly return you to the place you left off when you executed the save.

There is a file command that does what I would have expected Control-K L (^KL) to do and that is Control-K D (^KD). Eric Meyer calls this the "done" command. This one saves the current file before loading the next file. When you execute this command it will immediately start saving the current file to disk, exactly like the exit command (^KX). If there have been no changes in the file since your last save, you will be prompted in the header:

Unchanged: Save? (Y/N)

The option is yours. If you opt to save it, it will do that and then prompt (CONTINUED ON PAGE 16, COLUMN 2)



EXPLORING SmartBASIC

Part XIV: String Functions by Guy Cousineau

This article will deal with string manipulation. We will cover the basic operations and show a few tricks to make your string operations more effective.

As string operations are all VARIABLE COMMANDS, they all require a parameter (string) which is included within round brackets. Note that when a literal string is included, it must also be in quotes. This will become clearer in the examples that follow.

LEN will give you the length of the string. This is sometimes a very useful value which can be used as a loop counter:

10 INPUT "Name ";n\$
20 FOR x=1 TO LEN(n\$)

30 REM perform some manipulation

40 NEXT x

ASC will convert a string to an ASCII value. Expanding on the sample program above, we can do the following:

10 INPUT "Name ";n\$

20 FOR x=1 TO LEN(n\$)

30 PRINT ASC(MID\$(n\$,x,1))

40 NEXT x

This program will print the ASCII values of the supplied name. Not very useful, but it demonstrates the syntax of the function. Note that we have nested one string operation as a parameter for the other. This is quite acceptable as long as the correct number of brackets are opened and closed. When you get a syntac error typing one of these types of commands, check the brackets and quotes first, they are most likely the cause.

Let's look at another example which might make better use of the ASC function. A program uses GET statements to accept user input. Sometimes this is a LETTER which can be checked against an action table, and sometimes it is an arrow key or other control key:

999 REM get a key and process command
1000 GET Q\$: q=ASC(q\$): REM convert input to ASCII as well
1010 IF q>159 and q<164 GOTO 2000: REM process arrow keys
1020 IF q>31 and q<127 GOTO 1100: REM process stand. char's.

Note throughout these manipulations, the 'q' variable may be manipulated without losing the actual key press which remains in q\$. Note also that ASC works on the first character of any string. Thus to check string input for 'y', you can use the following which will be true if 'y', 'yes', 'yuppi' or anything else starting with 'y' was typed:

100 INPUT a\$

110 IF ASC(q\$)=ASC("Y") or ASC(q\$)=ASC("y") GOTO 200

120 REM process NO answer

200 REM process YES answer

CHR\$ is the opposite of ASC. It converts a number to its equivalent string character. Going back to our sample program at the start; let's use ASC and CHR\$ to convert input to upper case:

10 INPUT "Name ";n\$: o\$="": REM set out string to empty 20 FOR x=1 TO LEN(n\$)

30 a=ASC(MID\$(n\$,x,1)): REM get one character value

40 IF a>96 and a<123 then a=a-32: REM make UPPER if a-z

50 o\$=o\$+CHR\$(a): REM add new character to o\$

60 NEXT x

70 PRINT o\$

Note here the addition of strings. When 2 strings are added together, the second is appended to the end of the first. You can see this in the following example:

10 a\$="add"

20 b\$="ition"

30 PRINT a\$;b\$: REM show what they look like

40 c\$=a\$+b\$

50 PRINT c\$: REM same result

VAL is similar to ASC except that it converts an entire number (not just a digit) to a numerical value:

10 INPUT "Give me a number";n\$

20 n=VAL(n\$)

30 PRINT n

40 GOTO 10

You can type in positive or negative numbers, even numbers with exponents; the VAL function handles them. Now try typing "32 dollars" and "\$32" as a reply. The first come out all right but the second yields a result of zero. This is because the VAL function aborts whenever it encounters a non-number character. Note that 'number' characters include the "+", "-" and "=" characters provided they are in their expected position.

STR\$ is the opposite of VAL; it converts numerical values to strings. Let's look at one application of this function to RIGHT JUSTIFY a column of numbers. Type in the following program and give it 10 values to display. Remember to include some MINUS figures and some with 1, 2, and 3 decimal places:

10 PRINT "Give me 10 dollars and cents figures"

20 FOR x=1 TO 10: INPUT d(x): NEXT

30 FOR x=1 TO 10

40 d=d(x)

50 GOSUB 1000: REM print it right justified

60 NEXT x

70 END

999 REM routine to print d (right justified)

1000 d\$="\$": IF d<0 THEN d\$="-\$": REM set the prefix string

1010 d=ABS(d): REM strip minus sign if any

1020 t\$=d\$+STR\$(INT(d)): REM get whole dollar value

1030 PRINT SPC(20-LEN(t\$));t\$;: REM print dollars

1040 c=d-int(d)+.00501: REM get the pennies and round up

1050 IF c<.01 then PRINT ".00": RETURN: REM abort if none

1060 PRINT LEFT\$(STR\$(c)+"00",3): REM add in dec. & pennies

1070 RETURN

The first 2 lines of the subroutine decide whether to start with \$ or -\$ based on the sign of the 'd' variable. 'd' is then converted to a positive number. In order to right justify around the decimal point, the WHOLE DOLLAR portion of 'd' is extracted via the INT function and converted to a string via the STR\$ function. When this is added to the d\$ which was defined in line 1000, we have the total number of characters to be printed left of the decimal. Line 1030 accomplishes the right justification by printing spaces equal to the difference between 20 (our pivot point) and the length of the string. The dollar value is printed. Line 1040 figures out what pennies remain and line 1050 uses LEFT\$ (covered below) to print exactly 3 figures which may or may not be zero.

LEFT\$ extracts a portion of a string from it's start position to a specified length. The syntax is LEFT\$(string,length) where string can be any valid

string expression, (even string addition is allowed) and length in an integer from 1 to the length of the string. Note that any string parameter which exceeds the length of the string does not generate an error, it simply returns the maximum possible value based on string length.

RIGHT\$ extracts a portion of a string from it's right side (or end). It uses the same syntax as LEFT\$. Consider the following example of LEFT and RIGHT:

```
10 INPUT w$
20 y+LEN(w$)
30 FOR x=1 to y-1
40 PRINT LEFT$(w$,x);" + ";RIGHT$(w$,y-x)
50 NEXT x
```

MID\$ is much more versatile in that it allows the extraction of any part of a string whether beginning, middle, or end. The syntax is MID\$(string,start,length) where string is any valid string expression, start is the integer position to start and length is the number of characters to extract. If the length is not provided, MID\$ will extract from current position to the end-of-string. This is an undocumented and very powerful feature of string operators. Consider the example above. In order to print the second half, it was necessary to subtract the start position from the total length of the string. Using MID\$, this operation is not necessary, nor is it necessary to even know the length of the string. Consider the following:

```
10 INPUT w$
30 FOR x=1 to 10
40 PRINT LEFT$(w$,x);" + ";MID$(w$,x+1)
50 NEXT x
```

If the string is 10 or shorter, this routine will behave in an identical fashion to the routine using RIGHT\$. Note, however, the simpler arithmetic for the second half: start at x+1 for the rest of the string.

When dealing from a 'deck', programmers usually turn a 'card' ON or OFF when dealing. When a random card is selected, it's availability is checked prior to selection. While this works reasonably well with small arrays, larger arrays (even 52) often cause problems when dealing those last few cards: we just can't seem to randomly hit them. Consider the following example which uses string manipulation to solve the problem. Our first assumption is that cards are numbered from 1 to 52. The cards from 1 to 13 are clubs (for example), 14 to 26 are diamonds, etc.

```
99 REM initialize the deck
100 d$="
110 FOR x=1 to 52
120 d$=d$+chr$(x): REM put each card in line
130 NEXT x
140 RETURN
199 REM pick out one card from the deck
200 I=len(d$): REM get the remaining length
210 r=int(rnd(1)*I+1): REM get a random position in the deck
220 c=asc(mid$,d$,r,1): REM get the card value
230 a$="":if r<>I then a$=left$(d$,x-1): REM get first half
240 b$="":if r<>I then b$=mid$(d$,x+1): REM get second half
250 d$=a$+b$: REM crunch the deck
260 RETURN
```

We have 2 subroutines. The first at 100 initializes the deck. Although this is not shuffling, picking out cards at random within the deck will have the same effect. The second routine at 200 figures out the number of cards remaining in the deck and picks out a random number in that range. Variable "c" contains the value of the selected card from 1 to 52. Lines 230 and 240 cut the deck in 2 sections, the first before the chosen card and the rest after it. Note the protection which MUST be included in the event that the chosen card was the first or the last card. Finally, the 2 halves are added together to form the REMAINING deck. If you have ever dealt cards at random, try this routine. You will be pleased to see that it runs much faster than other methods, particularly when the deck is nearly empty. You always get a hit instead of trying to pick cards which have already been used until you find a good one.

ROUTINE ADDRESSES

- LEFT\$ executes from 10508(290C) to 10526(291E). It calculates string length and cut point and calls the cut routine at 10616(2978).
- RIGHT\$ executes from 10529(2921) to 10550(2936). It also calculates the start point and length to extract and calls the cut routine.
- MID\$ executes from 10553(2939) to 10615(2977) with the actual entry point at 10563(2943). It gets the start point and checks if a length was supplied. If there is none, the remaining length is used. It eventually falls through to the cut routine.

LEFT, RIGHT and MID use a complex compare routine from 10464(28E0) to 10507(290B). It checks the requested length against the length of the string.

- LEN executes at 10454(28D6). It simply extracts the string length byte from the floating point accumulator (which is used too store string pointers).
- STR\$ executes from 10411(28AB) to 10453(28D5). It converts the numerical value to ASCII as if it was to be printed on the screen, then creates a string of the appropriate length.
- ASC executes from 10351(286F) to 10368(2880). It gets the pointer to the string and extracts the first character. It then dumps the value into the floating point accumulator for use by the rest of the logical operation.
- CHR\$ executes from 10371(2883) to 10410(28AA). It creates a string of length 1 and fills in the value of the string with the number supplied.
- VAL executes from 10309(2845) to 10348(286C).

This concludes the analysis of String Operations. Next time Math Functions.



ADAM NEWS NETWORK

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EXPLORING SmartBASIC INDEX

Following is a listing of all the Exploring SmartBASIC articles that have been published in the N.I.A.D. Newsletter to date.

PART i: Looping - September 1991, Issue #80

PART ii: Decisions & Branching - October 1991, Issue #81

PART iii: Input Commands - November 1991, Issue #82

PART IV: Basic Output - December 1991, Issue #83

PART V: Screen Format Commands - January 1992, Issue #84

PART VI: Screen Position Commands - February 1992, Issue #85

PART VII: Miscellaneous Commands - March 1992, Issue #86 PART VIII: Reading the Joysticks - April 1992, Issue #87

PART IX: Low Resolution Graphics - May / June 1992, Issue #88

PART X: High Resolution Graphics - September 1992, Issue #90

PART XI: Program Control Commands - October 1992, Issue #91

PART XII: Error Trapping - November 1992, Issue #92

PART XIII: Playing with RAM - December / January 1993, Issue #93

PART XIV: String Operations - February / March 1993, Issue #94



THE LOGO NOTEBOOK

Part XII: The Logo Tutorial, Cont. by Ron H. Mitchell

We goofed. The last issue of the Notebook contained a listing of the opening screen of our LOGO tutorial, and the listing is incorrect in a couple of places. (Just wanted to see if you were awake???). Make the following changes:

In the procedure KEY6 the first line should read SETX 75 In the procedure KEY5 the first line should read SETX 35

With these corrections made, run the procedures by typing: SETUP

You should see a thick black square outlining the screen with a row of smartkeys across the bottom labeled: ADD DEL EDIT VIEW FILE QUIT.

It's a beginning.

Here we have a total of ten separate procedures, or subroutines if you will, each of which can be run separately. Try it. Type

BORDER 12

The 12 indicates how many pixels wide the border is to be. In the case of our opening screen, we've used a width of 5, but the way this procedure is set up, you could have a border of width of anything up to 78, depending on your purpose. After a while the centre square gets rather small.

In any case, our purpose here is simply to draw a decorative border around the edge of the screen just to sort of mark things off.

Then we need a means of indicating what choices are available from the opening screen. We could have used a menu or perhaps another means of asking the user what he or she wants to do next. These choices are part of what makes up the "USER INTERFACE" in any given program. Most of you have seen Tony Morehan's FILEMANAGER, which provides another highly effective way of laying out the choices available. For most of FILEMANAGER's operation, a series of default settings are used and these are clearly indicated on each screen. If you do nothing except press <RETURN> something will happen, because the program is set up in a certain way.

FILEMANAGER uses the smartkeys, and so will we. To keep it simple, we'll just lay out the choices at the bottom. Each key indicates one of the program functions. We're going to set it up so that you can actually write your own LOGO notebook as you go along. So the first capability to be provided will be to ADD a note or procedure description. This will be the place where you enter the things you want to

remember about LOGO such as primitives, commands and operations, along with a description of how they work, the paramaters they require if any and perhaps an example or two or the proper syntax to be used.

You might also want to DELete a particular entry so that you can substitute a more useful one. And of course you will certainly want to EDIT entries from time to time. You'll want to see what's there in order to reVIEW your work and refresh your memory. This after all, is what a notebook is for. And for sure you'll need to save it and get it back.

And then, when you're finished using the program, you'll want to QUIT.

So these are the basic things we'll be doing. Some of the choices will branch to sub-menu's where more choices will be displayed. We'll work on it, piece by piece. All of the commands and operations used in the program so far have been described in previous segments of the LOGO Notebook, and we'll learn more as we go on.

To finish off this particular article, let's do a little housekeeping. We've done some of this before, but a review is useful at this stage, because we have 10 procedures in the workspace, and things might be a little confusing.

With the opening screen of our tutorial loaded, type:

POTS

Which is short for Print Out Titles. Logo will respond with all procedures presently in memory. This gives you a quick idea of what you've got in your workspace. Now type:

POALL

Now you're going to see not just the titles, but all of the procedure in detail. Whizes by rather quickly, doesn't it. If you want to stop the listing process at any point, press smartkey V. This key acts as a switch, and will freeze the display at any point during the execution of a procedure or primitive. To resume the listing, press smartkey V again.

If you're like me, you might have trouble de-bugging your work on screen and will prefer to work from a printout. To activate ADAM printer, type:

PRINTER

Simple as that. To turn it off, type: NOPRINTER

With PRINTER in effect, all the text that LOGO puts on screen will also be routed to the printer.

And here's an important point, so far I do not know of a patch that will permit use of a dot-matrix printer with LOGO. Checked with Ricki Gerlach on this down at ADAMCON 3, and he told me he didn't think one had been done so far. We'll have to see about that. To the best of my knowledge, nobody has done a disassembly of the LOGO interpreter, so we don't know where the print drivers are....YET.

While we're dealing with peripherals, we might want to change drives. This is done by typing:

SETDEVICE X

Where X is 0,1,4 or 5. 0 and 1 are tape drives 1 and 2, and 4 and 5 are disk drives 1 and 2. Does anyone know what devices 2 and 3 are?

And then we have CATALOG, which does the same thing as it does in SmartBASIC, and LOAD and SAVE. Note that the LOAD and SAVE commands must be followed by a filename preceded by a left hand quote. (Reminds me of IBM's BASICA, which is similar in this respect.)

LOAD "RONFILE SAVE "TUTOR.LGO

The CP/M type file extension is not necessary. You have up to 10 characters to name your file, just as you have in SmartBASIC. I'm using the LGO extension just to remind myself that this is a LOGO file, just in case it gets mixed up on a disk with other types of programs.

To finish off, let's go back to the workspace for a moment, the workspace being what you have 'alive' in ADAM's memory. To save everything that is in the workspace, you simply type the command SAVE, as above and a file name which can be whatever you want. Everything that is presently in the workspace will be saved as part of the file.

Now. Here's an important point. Unlike SmartBASIC, LOGO will not permit you to use a filename that already exists in the directory. It simple comes back with message:

TUTOR.LGO ALREADY EXISTS

At the moment, I know of only two ways around this problem. You can use a different filename, or you can delete the existing file before saving a new version:

ERF "TUTOR.LGO (ERF is a primitive...ERASE FILE)

We have a little more work to do on workspace management before we carry on with the tutorial, and we'll carry on with that next time out.



OVER THE PHONE LINES

Part III: ADAM Only Bulletin Board Systems by Bart "Zonker" Lynch

There are many ADAM only (and ADAM support) bulletin boards to choose from. If you are reading this article as part of your ADAM mailing, then please see a file enclosed called BBSLIST. If you are reading this through one of the many fine newsletters and there is not an enclosed BBS list, ask the editor for a copy. Better still, if you are local to that user group, show up at one of the meetings and ask. (Your local AUG meeting is a terrific place to get information!)

Now, pick a BBS, any BBS! Long distance dialing being what it is, it's hard to determine by distance alone what might be the cheapest BBS to call. Just go through them by trial and error. And keep a keen eye on the old clock on the wall!

If you've chosen an A-NET BBS to call, this is what you'll see as your "opening screen". (What you see when you've actually connected to the BBS.) It will say something to the effect that this BBS is released through ADAMLink of Utah. It might also have some information about the modifications that some folks have made. At some point, it will say "PRESS RETURN:". Here you will probably get more info' and finally it will say something like "ENTER YOUR HANDLE OR ID#:"

If this is your first visit, type NEW at this prompt. Then just follow the directions. Be sure to give all information correctly i.e. phone number, name, etc. Verification of such information is at the discretion of the sysop. And no sysop likes to be lied to! One further tip... the last bit of info you'll enter as a new user on the A-NET board is called feedback and you'll be prompted to reply with hobbies, best area of the ADAM, what sort of setup you have, etc.

When you are done typing this info, you MUST have the BBS SAVE this text. To do so, hit the carriage return then type (.s). As in the example below:

"Hi, this is my first time on a BBS and thought I'd try yours. Hope to be on here quite often and ANY help you can give would be truly appreciated! s"

What you will see on screen when you type the . is >. Immediately after that, type S and you will see SAVE.

This is what it will look like:

>>SAVE (- and be sure to hit the RETURN key!.)

On the A-NET (and any other ADAM-only BBS) you'll be given an ID# and a password of your choosing. Write these down as you WILL need them to get back onto the BBS on subsequent visits! Be aware that on this first visit, your time will likely be limited and there is NOT much you can do except look around. This is to give you time to see what's what and to give the sysop time to see if you are a worthy user (that is, someone who doesn't just come in and start trouble. Believe it or not, such people exist!!)

When you are ready to leave, I strongly suggest you leave the sysop feedback. Let them know whether you are interested or not and if you plan to call again or not. This is simple courtesy and will let the sysop know if he should give you an upgrade in status or simply remove you from his files. Please don't forget to do this.

Logging off is very simple. After leaving feedback (just type F at almost any prompt.), either hit O or OFF or hit +. The + will log you off QUICKLY (in fact, it merely disconnects you!) with NO chance to leave feedback so be careful using this function.

While on this first visit, you may check out the message base area. To

get there, type B at the MAIN: prompt. This will put you in the FIRST message base, titled, aptly enough B1. There are several message areas, divided by topic. To see all areas, type L at the message base prompt. If you want to switch areas, type the number at the prompt. To see the topics in the area, type S. When you find one you wish to read, type R and the number, as in R3. On your first visit, you won't be able to reply or post, but you should be able to on follow up visits.

Remember, if you have ANY problems, don't hesitate to use that F key and leave feedback! It's a little overwhelming at first, but it gets easier as it goes along.

Speaking of easy, there are the other ADAM-only BBS. These are called ADAM-NET and were actually the second type of ADAM-only boards to appear. They are extremely easy (and fast) to use. Instead of dividing the conversation into topic areas, the information flows continuously and one just jumps in and goes with it.

The boards ARE divided into very GENERAL topic areas such as TDOS/CPM, GENERAL, HARDDRIVE, etc. While A-NETs are run under SmartBASIC, ADAM-NETs are run under TDOS/CPM which allows them to be a touch faster. (The way SmartBASIC handles files causes it to be slower.)

Here again you'll be prompted at log on for your ID#. And, like on A-NET, just type NEW and go from there. Again, you won't be able to participate on the board your first visit so take it like you would the A-NET above. DON'T FORGET TO LEAVE THE SYSOP FEEDBACK AT LOG OFF! The commands are similar but be aware that to log off of ADAM-NET, you type OFF, with BO prompt to leave feedback. So make sure you are ready to leave before typing that OFF!

When you have properly logged on, type N to get to the first message base, GENERAL. To read the messages, there are a few options available. You can simply type R for read. The board will then prompt for which message number (after showing you which numbers are available). This will display one message at a time and prompt you to hit a key before typing the next one. You can type RC and the messages will flow nonstop until the last one. Or best of all, you can type RN. The N stands for NEW messages which won't do you any good the first time around but is a time saver for your next tripl

One final note on ADAM-NET boards. I must apologize to those sysops who run them. I'm not as familiar with ADAM-NET as I am with A-NET and if I've left anything out of this description, it was NOT intentional. To those of you reading this, please be sure to try out BOTH types of BBS's. They each have features that are too numerous to list here.

Here we are at the end of my ramblings and I see I haven't mentioned CompuServe. This is THE original place for ADAM information! Before there were ADAM boards, there was CompuServe. (AKA C.I.S., for CompuServe Information Service.) It's exclusion from this article is due to my own ignorance as I've only recently started logging on there and am trying to figure out how to navigate. My apologies to Rob Friedman and Tim Nunes (ADAM CP/M and ADAMania CISops and all-around nice guys). Perhaps I will do one article on CIS in the future. In the meantime, don't hesitate to call the toll free number to find the CIS node nearest you.

I've also not related ANY info on ADAM related boards. These are generally run on OTHER computers (IBM, MAC, etc.) with space GENEROUSLY donated to we ADAM users by the sysop. They are a totally different creature and should be approached only after you've done some really extensive practice. But many ADAM owners DO find them useful. Perhaps you will as well. (See BBS Listing on page 16.)

FUND. OF COMP. PROG., CONTINUED FROM PAGE 7

Once all of this information has been assembled, a complete documentation package will be available as needed. Most programmers have their biggest failing in not properly documenting or maintaining the documentation of a program. The bigger the program, the more important is the documentation.

The better the documentation, the easier it is to get into a program and understand what has been done. Even if the program is one that you wrote, you might not remember exactly what you did or why it was done in that particular way. Proper documentation will tell you.

Many commercial software packages have very poor or no documentation. When this occurs, using what you know, develop your own documentation package. Print a copy of the program and draw a flow chart to the best of your ability with the information on hand. As your knowledge of the program increases, add to your documentation package, always keeping it up to date. Later, if problems occur or changes to the program are made, there is a documentation package available to help.

WORKING WITH SpeedyWRITE, CONTINUED FROM PAGE 9

not need any Control codes.

Assuming we are writing a formal, business style letter, following the address, we need to insert a line specifying the subject, something like Re: Your File No. 92-01234 or Regina vs. Sands or Per Your Final Notice. To center and underline this item, we will again type Control-V then C and then Control-V and U. It will look like CU in an inverse block. Then type your subject line. At the end of that line we'll type Control-V and U again because the 'U' is a 'toggle' --- that is it turns underlining on and then off. Any 'toggle' must be used twice. Centering is not a toggle, and only one C is needed -- and this is important -- but every line that will be centered must be preceded by a Control-V-C.

We've now reached the body of our letter. Let's continue to assume things. We'll do the first paragraph in standard flush left form. No control keys will be needed.

The second paragraph, however, for our good reasons, will be a quotation from something or someone. Suit yourself, the possible range is from the Desiderata to Chairman Mao or beyond. Let's insert the quotation, and full justify it, that is, make it end with even lines on both left and right sides.

To do this we alter SPW's standard margins of 10 and 70 for a page width of 60. (Margins are always set from the left hand edge of the page). Let's make them 15 and 65. Again, Control-V and then type L, the mnemonic for Left margin, and then 15 without any space between the two: L15. SPW sets the right margin by setting the page width, hence, the second mnemonic is W, for Width. Our new width will be 50 so the command will appear W50. We want this quotation justified, so the next command is again, Control-V J. Each of these three separate Control-V commands is separated by one space, and the set of commands, no matter how many, is ended with a Return key. This may well strike you as both difficult to remember, and complicated to execute: it is mostly a matter of practice. The results are what counts and SpeedyWRITE will give you control, over your formatting and printing, you do not have in SmartWRITER.

Assuming now that the quotation is transcribed; "Go placidly amid the noise and haste, and remember what peace there may be in silence." We can, ourselves, go placidly on. When we want to return to 'normal' left justified, full width typing on our page, we insert another set of margin commands: L10 W60 <RETURN> and SPW resumes typing as it did in the first paragraph. Having changed standard margins, we need to change them back. This will allow us to finish our letter, and this installment, in the usual manner. Once written, printed out and reviewed, for content, proofread for errors and neatly folded, it can go

into an envelope. How we can transfer the address on the letter to the envelope and print that out through SpeedyWRITE, and other useful functions of the program, will be part of the next in this series.

PUT IT IN WRITING, CONTINUED FROM PAGE 10

you with the LOAD prompt as noted above. If you opted not to save, it immediately prompts you for the new file and does so, without saving the current file.

If, for some reason, you want to change the name of the file you are working on, there is a command for that ---- Control K N (^KN). This will prompt you for the new name and when you have named it, it renames the file and goes back to the cursor. Should you select a name of a file that already exists on the disk, when you execute a save command, that file will be erased and the file you have renamed to that name will be stored.

ADAM BULLETIN BOARD SYSTEMS

by Bart "Zonker" Lynch

- NAME: Final Nexus SYSOP: Steve Major SYSTEM: Apple MacIntosch HOURS: 24 hours - 7 days BAUD: 300 / 1200 / 2400 PARAMETERS: 8-N-1 PHONE: (518) 298-4294
- NAME: Phoenix ADAMLink SYSOP: Rusty Gillott SYSTEM: ADAM A-Net HOURS: 24 hours - 7 days BAUD: 300 / 1200 PARAMETERS: 7-E-1 PHONE: (602) 936-3892
- NAME: S.L.C. ADAMLink SYSOP: Alan Neely SYSTEM: ADAM A-Net HOURS: 6pm - 8am, 24 hrs. we BAUD: 300 / 1200 PARAMETERS: 7-E-1 PHONE: (801) 484-5114
- NAME: ADAM-X-Change SYSOP: George Koczwara SYSTEM: ADAM CP/M HOURS: 24 hours - 7 days BAUD: 300 / 1200 / 2400 PARAMETERS: 8-N-1 PHONE: (216) 883-9355
- NAME: A.W.A.U.G.
 SYSOP: Jeff Jodoin
 SYSTEM: ADAM CP/M
 HOURS: 24 hours 7 days
 BAUD: 300 / 1200 / 2400
 PARAMETERS: 8-N-1
 PHONE: (703) 960-5315
- NAME: Cat's Lair
 SYSOP: Peter Ames
 SYSTEM: ADAM A-Net
 HOURS: 24 hours 7 days
 BAUD: 300 / 1200
 PARAMETERS: 7-E-1
 PHONE: (802) 295-4831
- NAME: The Trading Post SYSOP: Herman Mason SYSTEM: ADAM A-Net HOURS: 24 hours - 7 days BAUD: 300 / 1200 PARAMETERS: 7-E-1 PHONE: (216) 791-4022

- NAME: Delaware Valley HOURS: 6pm-10am wd, 10-10 we PHONE: (215) 277-0433
- NAME: I.E.A.U.G.
 SYSOP: Tom Keene
 SYSTEM: ADAM CP/M
 HOURS: 4pm-6am wd, 24 hrs. we
 BAUD: 300 / 1200 / 2400
 PARAMETERS: 8-N-1
- NAME: Rocky Mountain HOURS: 24 hours - 7 days PHONE: (719) 783-9046

PHONE: (714) 775-1603

- NAME: Maine ADAM Library SYSOP: Bob Sebelist SYSTEM: ADAM A-Net HOURS: 6pm-8am, 7 days a week BAUD: 300 / 1200 PARAMETERS: 7-E-1 PHONE: (207) 583-4923
- NAME: Micro Innovations SYSOP: Mark Gordon SYSTEM: ADAM CP/M HOURS: 6pm-6am wd, 24 hrs. we BAUD: 300 / 1200 / 2400 PARAMETERS: 8-N-1 PHONE: (703) 264-3908
- NAME: Northern Link HOURS: 24 hours - 7 days PHONE: (403)246-4086
- NAME: The St. Louis A.U.G. SYSOP: Al Fitzgerald SYSTEM: ADAM A-Net HOURS: 9pm-6am Thur. - Sun. BAUD: 300 / 1200 PARAMETERS: 7-E-1 PHONE: (314) 383-3617
- NAME: The Powder Keg HOURS: 6pm Fri. to 6am Mon. PHONE: (416) 492-5756
- NAME: Thomas Electronics SYSOP: Thomas Mackie SYSTEM: IBM Compatible HOURS: 24 hours - 7 days BAUD: 300 / 1200 / 2400 PARAMETERS: 8-N-1 PHONE: (306) 384-7682

Some listings are incomplete!



ADVENTURES IN CP/M & TDOS

Public Domain Reviews, Updates & More by Doug Rosenvinge

IN THIS ARTICLE:

- Review of Guy Cousineau's Geneology Program
- Review of Canadian Trivia by Guy Cousineau
- The core of a membership management system

This is a long overdue additon to our CP/M 2.2 & TDOS Library of Public Domain software. I say long, because I have had these disks for quite a while and have not had the time to do a review. Actually, not quite true. The truth is I had written two articles about them but misplaced (erased) the disks. Both of these disks are well done and should prove useful and entertaining to the ADAM community.

GEANEOLOGY N.I.A.D. CP/M 2.2 CNDV VOL. #61

What it does... This program provides a neat and efficient way of storing information gathered about parents, ancestors and descendents. It has limited space in its data files that limit the number of individuals in a file to 511 for the average Adam user who owns only a 160K disk drive. For those with higher density drives you can get slightly over 1022 individuals in a file. The program displays information on the left side of the screen. Each record consists of a record number, last name, first name, date of birth, father, mother, mother's maiden name, location of marriage, date of marriage, spouse's name, places for 7 children along with their record numbers, and an alternate record number.

The documentation file describes the proper use of all of the fields. Save yourself some trouble -- read the documentation before using the program! How you enter the information will affect all of the searching mechanisms built into the program.

The program is menu driven and features functions that allow you to scan through the family tree, build a family tree on disk that you can edit with a word processor, modify a complete record, modify the kids only, copying a record to the right side of the screen for reference when working on another, a search function, an update function that looks for missing information, a cross reference function to help find errors, a Happy Birthday function for compiling birthdates, and a function for rebuilding the index.

This is a fast program that makes use of its own special database structure and index. Guy points out that one should only exit this program through its own exit command. The reason for this is the indexes are only written to the disk on exiting! If you don't exit properly you will have to rebuild the indexes!

Other Uses... This program may find application among those who breed birds, dogs, or other animals. The only problem is tht the character fields are limited to 15 characters per field. For some animals that is very short so some other reference would be needed.

This is a great program. I have played with it for a couple of months and have not found any problems.

CANADIAN TRIVIA N.I.A.D. CP/M 2.2 CNDV VOL. #62

What it Does... This program demonstrates how ignorant Americans are of events, places and people not immediately associated with their own country, favorite sports team or television show. Actually, this program provides an opportunity to test your knowledge of

Canadian Trivia. I discovered that I have a lot to learn about our neighbors to the north. Guy has included two data files full of Canadian Trivia. If they are not enough, he has also included other programs that will enable you to construct your own data files for your own trivia games. This set of programs has the potential of providing hours of entertainment.

CHURCH dBASE SYSTEM N.I.A.D. CP/M 2.2 CNDV VOL. #63

One of the things that I need to do as a pastor of a church is to keep track of membership information in a way that I can easily organize and access. One of the reasons that I bought my ADAM was to use a database system that could provide me with an economical way to keep records on membership, produce mailmerged letters and do some statistics. My original choice of software, SmartFILER, had a lot to be desired and was not capable of doing all I wanted of it. Eventually I wrote OpenFILER to copy the database into a standard ASCII format so I could use dBASE II and other database products. I even began to write my own in SmartBASIC until I, like many others, discovered that it was unstable in complex data string management. For a while I had access to an IBM clone and used commercial church membership software. Now I am at another church, which has no computers of its own, and am back to using dBASE II, my ADAM and an EPSON QX-10 (The Epson runs under CP/M and TP/M+).

The problem:

The membership records were in need of updating and were kept in three locations, a card file, a parish record book, and an IBM floppy disk that contained only lists of names in certain catagories. The mailing list was typed onto a master list and photocopied onto labels. In that state it was impossible to make many changes without having to chase through all the above, which were organized in different ways. A second problem quickly appeared. I had no way of knowing who belonged with whom. Some children had been adopted by faimilies and so last names were not always a good indicator. We also have some families that are related and have the same last name. It became clear that our records had to be organized by more than alphabetical or sequential methods.

A partial solution:

Since I already had a good deal of experience with CP/M software and had it available. I decided to use the tools that I had at hand. I made a list of the information that I wanted to keep for each member. I then made a list of the information I wanted to get from various reports (mailing list; dates for birth, baptism, confirmation, marriage, membership; family relationships; spouse; offering envelope numbers; pledge information, and more.) I looked at having a place for freeform comments and looked for a way of reporting changes in membership for statistical purposes. After all this was done I went to work designing a databse structure that would fit with dBASE II's limitations. The result is on disk 62 of the Niad CP/M public domain library. The system is not yet complete. I have worked on it when I could to meet my own needs over the last year. It takes up a lot of disk space and is designed for an 80 column screen. I run it on my Epson QX-10 because of its 390k disk drives. Currently my database has 290 records and uses most of the space available on both disk drives. This is because up to 3 copies of the database exist at the same time on drive B. They are the current version, the backup from before the last sort, and the datafile created for use with WordStar. The amount of disk space needed could be reduced by changing the program files to create the data file (POP.DAT) on another drive, perhaps the RAM disk. The .MMF files for WordStar would also have to be changed to look for the data file on that drive as well.

Requirements:

- ⇒ 1. At least 700k in storage available on one or more drives. (Do not count tape drives. Database programs like this will destroy them through overuse.) If you use an arrangement of other than 2 drives plan on editing the ".CMD" and ".MMF" files accordingly.
- ⇒ 2. An 80 column monitor.
- ⇒ 3. dBASE II
- ⇒ 4. WordStar 4.0 You may use other word processors but the reports I have written make use of WordStar's mail-merge capability. You will be on your own to write mail-merge forms or programs for your own wordprocessor. If you have an earlier version of WordStar with Mailmerge you will have little or no problems using the mail-merge files I have provided. Check the WordStar "dot" commands, especially those for margins at the top and bottom of the page.

What it does:

Essentially the programs on this disk form a menu system that enables the user to avoid learning how to program dBASE II. The commands needed to perform the various functions are written in ASCII (plain text) files that dBASE can understand. The user starts up dBASE, tells dBASE the date, then at the dBASE dot prompt types DO PO-MAIN <RETURN>. This will load the menu program. After this point the user selects menu options and types in the number of a function. dBASE will load and run the appropriate command file(s). The following is a summary of the main menu functions.

- 0 Exit (quits to dBASE II prompt. The user must type "QUIT" to safely leave dBASE II or damage to files could occur.)
- 1 View (allows records to be viewed, not edited.)
- 2 Add (adds new records to the database.)
- 3 Edit by LAST NAME (allows records to be edited. Records are presented in alphabetic order by last name.)
- 4 Edit by FAMILY NUMBER (allows records to be edited. Records are presented in family number sequence.)
- 5 Pack (physically removes deleted records from the database.)
- Sort (renames current database to backup, erases previous backup, physically sorts the database by family number and copies it to the new database, then creates a new set of indexes. Any deleted records are not copied to the new database effectively packing the database as well.)
- 7 Not implemented.
- 8 Not implemented.
- 9 Make WS merge file by FAMILY NUMBERS (Creates a datafile "POP.DAT" that is in ASCII, delimited by commas and quotation marks, and may be used by WordStar, BASIC, or other programs. The sort order is by Family Number sequence.)
- Make WS merge file for BIRTHDAYS (This does the same as option number 9, except that the sort order is by birthday.)
- 11 Make WS merge file for ALL people (This does the same as option number 9, except that the sort order is alphabetic.)
- 12 Make WS merge file for code M by LNAME (This does the same as option number 9, except that only records with "M" in the mailcode field are copied and the sort order is alphabetic by last name.)
- 13 Make WS merge file for code M by ZIP (This does the same as option number 12 except that the sort order by zipcode order.)
- 14 Make WS merge file for MEMBER STATUS (This does the same as option number 9 except that the sort order is by the code in the Member Status field. Example: B= Baptized, X= eXpired, C= Confirmed, P= Prospect, F= Friend, A= Associate, R= Removed, T= Transferred out, O= Other. This option will group records together by the particular code. The Associate members will be listed first, followed by the Baptized, Confirmed, Friends and so on. The very first will be those without any code. I use O or Other as a flag for me to look into the correct status. Any time I use this option I will be reminded to check into them because they will appear as a group.)
- 15 Make WS merge file for ENVELOPE Nos. (This option makes a datafile sorted by offering envelope numbers. I use this a couple times a year when I print mailing labels for envelopes

and prepare a list of envelope assignments for the church treasurer.)

A second set of files is included for use with WordStar. These files actually provide the reports for this system. The following is a description of what they do:

- LSRLAB.MMF provides a printout of names and addresses on regular 8 1/2 x 11" fanfold paper formatted for use with laser printer labels.
- CPRLAB.MMF provides a printout of names and addresses on regular 8 1/2 x 11" fanfold paper formatted for use with copier labels.
- ROLO.MMF provides a printout of name, address, phone number, family number, membership status & date formatted for copying on laser printer mailing labels. These can be stuck onto rolodex cards to update your desk rolodex file.
- CPRROLO.MMF provides the same as ROLO.MMF but for copier labels.
- BIRTHRPT.MMF provides a listing of people by birthdays.
- ENVMEMBR.MMF provides a listing of membership & envelope numbers.
- MEMBRPT.MMF provides a printout of membership information. The format is 2 people per regular page, each record being 8 1/2 x 5 1/2".
- MEMBSHOR.MMF a cramped listing of the membership information jammed onto 3 lines. Its purpose is to let you print all of the information in the shortest list possible.

Obviously the mailmerge files are not all that one would desire. I have no file for making church directories or the like. However, information from the datafile can be edited easily, especially if family numbers are used.

Organizing with Family Numbers:

This system provides for a 5 digit family number. The first three numbers are for the family unit. Every member of the family shares the same number. This number is followed by a decimal point and two more digits. These last two digits are the individual's number. Because most sorts are controlled by these numbers the main member of the family (for identification purposes) should have an individual number of 01. The spouse should be 02, the first born child 03, and so on. Each family can have up to 99 members and the database could track 999 families. I doubt those capacities would be reached as disk space would likely run out first (unless you had a hard drive).

The nice part about this scheme of organization is that it can be used to keep people in a family together, no matter what their names. The idea is not original with me, I have seen it used in various systems and borrowed it for this program.

Doug Rosenvinge 10 North River Rd. Coventry, CT 06238

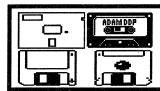
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Public Domain Reviews, Updates & More by Jim Notini

ADDRESS MASTER V1.03

ADAMagic ONDV VOL. #5
(c) 1987 by ADAMagic Software
Released to the Public Domain - March 1992

ADDRESS MASTER is a full featured address and phone number database which was released commercially in 1987. It can hold up to 250 records and you can have as many files as you want. ADDRESS MASTER will use a printer other than the standard ADAM printer as long as it is accessed through port 64, the EVE and ORPHANWARE printer interfaces both use this port as do most others. If you have a problem using your printer with this program let us know. It should work with any printer.

Although ADDRESS MASTER is menu driven and user friendly, the following is a short review of the MAIN MENU to get you started.

To load ADDRESS MASTER simply insert the tape or disk in any drive and pull the COMPUTER RESET switch. After it is loaded into memory you will be presented with the MAIN MENU. It should look like this:

ADDRESS MASTER MAIN MENU Room for 250 more records.

followed by nine options which are listed below and a request for user input.

You will notice that any time you go to the MAIN MENU you will know how many more records you can have in this particular file.

[1] LOAD A FILE - Pressing the number 1 will present you with the file loading menu you will be asked if you want to see the directory and then the name of the file you want to load.

[2] ADD RECORDS - Pressing the number 2 key will allow you to ADD records to the file currently in memory. To start a new file simply start adding records WITHOUT loading a file first. To add records to an existing file you must load it into memory FIRST. You will be presented with seven fields of information one at a time, to skip any field just press return. After completing a record you will be asked if the information is correct, if you want to print an address label, and if you want to add more records. The seven fields that make up each record are First Name, Last Name, Address, City, State & Country, Zip Code, and Phone Number. Each record can have a maximum of 250 characters.

[3] CHANGE / DELETE RECORDS - Choosing this option will present you with the Change/Delete records menu. You will be asked if you want to CHANGE or DELETE a record and the number of the record to change or delete.

[4] LIST / PRINT / SEARCH RECORDS - Pressing the number 4 will present you with this menu which has many options. To LIST or PRINT records you can choose output to the screen or printer, full records or address labels, and all records or just a selected few. In the SEARCH records option you may search on any field.

[5] SAVE A FILE - With this option you will be asked if you want a directory and then the name of the file you want to save. ALWAYS save a file if you have ADDed, DELETED, or CHANGED any information. It is not recommended saving files to your ADDRESS MASTER tape or disk.

[6] SORT RECORDS - Choosing this option will sort all records

currently in memory with the last name in each record as the primary sort string. The bigger the file the longer it takes to sort, the screen will constantly change color so that you know ADAM is working. When all the records have been sorted you will be returned to the MAIN MENU.

[7] DIRECTORY - This will give you a directory (catalog) of any of the four drives.

[8] CHANGE DEFAULTS - The default screen color is dark blue with white text. The default printer is the standard ADAM printer. Use this option to change to and from the ADAM printer and a dot matrix printer and to change the screen and text colors. Please note that the current screen and text color is saved with your file. If you select a screen color and a text color that is the same press the number 5 key to go back to the default screen and text colors.

[9] QUIT - When you are finished using ADDRESS MASTER you may quit the program this way, you will first be asked if you have saved you data. If you say no you will be returned to the main menu, if you say yes you will be returned to word processor mode.

HELPER'S FRIEND

by Hexace Software Released to the Public Domain - January 1993

This program was written so that the user of the SmartWRITER'S HELPER program could make changes to the default devices and changes to the embedded code symbols. The program is all machine code and is menu driven. The first step you must do is to insert the program disk into any disk drive and pull the reset switch. After the program has loaded, you must select a drive that has the HELPER disk or tape in it. You may remove the HELPER'S FRIEND disk to use the same drive if you like.

The second step is to select (LOAD) from the main menu. The program will tell you when the file has been loaded. If the program has trouble, it will tell you this too. If you do run into trouble just start again from the beginning. Once the file has been loaded into the program select one of the secondary menu (DEFAULTS) or (CODES). The default menu is a toggle type menu. Select using the arrow keys then press the return key to toggle the selection to the opposite device. If you select the codes menu you may use GOTO to place the numbers for the symbol in the box on the screen. Once the character selection has been made, you can make the sequence of numbers longer with INSERT, up to 3 numbers, or reduce the sequence to only one number with DELETE. If the sequence is two or three in length, the first number will always be 27. You can not change this first number.

You can use the CHANGE to make number changes to the number if only one, or the second number if there are two in the sequence, or you can change both of the last two numbers for a sequence of three numbers. You will have to use your manual for your printer to find out what numbers you need. If you want to you can use several single number codes to make up longer sequences of numbers. If you want to use the rest of the lower case alphabet to (z) use the ADD selection. When you have made all the changes you want, press the escape key to return to the main menu.

Do not remove the HELPER disk or tape from the drive until you select Save and press the return key. Wait until the program tells you the file has been saved. Then you can use the goto SW to load and run your modified version of HELPER. This program should make the HELPER program even more usful to the users of SmartWRITER.



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BASIC SYSTEM MGR. 3.0 / FASTRUN	\$18.95
COPYCART+ V2.0 (DISK)	\$19.95
COPX	\$10.00
DECIMAL DISASSEMBLER	\$19.95
DISK DOCTOR	\$10.00
E.O.S. DIRECTORY SORTER	\$10.00
E.O.S. FILE INDEXER	\$10.00
E.O.S. PROGRAMMING KIT	\$29.95
FILE MANAGER V3.0	\$19.95
FORMATTER III (DISK)	\$9.95
GUY'S E.O.S. UTILITIES	\$20.00
LIBRARIAN	\$10.95
MEDIA HELPER	\$17.95
MEMDSK FOR SmartLOGO (64K)	\$10.00
MR. T LIBRARY	\$10.95
OPENFILER V3.0 with OPENRECIPE	\$14.95
Z80 DECIMAL DISASSEMBLER	\$10.00

HOME / BUSINESS

ADAMCALC (DP)	\$29.95
ADAMLINK V	\$24.95
ADAM MAP: U.S. ATLAS (64K)	\$17.95
ADAM MAP: STATES VOL. #1	\$6.95
STATES: IA, MN, NE, ND, SD	
ADAM MAP: STATES VOL. #2	\$6.95
STATES: MT, ID, OR, WA, WY	
ADAM MAP: STATES VOL. #3	\$6.95
STATES: CA, NV, UT, AZ CO	
ADAM MAP: STATES VOL. #4	\$6.95
STATES: TX, MO, NM, KS, OK	
ADAM MAP: STATES VOL. #5	\$6.95
STATES: AR, LA, TN, AL, MS	
ADAM MAP: STATES VOL. #6	\$6.95
STATES: GA, FL, SC, NC, VA	
ADAM MAP: STATES VOL. #7	\$6.95
STATES: WV, OH, MD, DE, KY	
ADAMTALK V1.1 (EVE SS-CC)	\$19.95
ADDRESS BOOK / CALENDAR	\$9.95
APPOINTMENT BOOK	\$24.95
AUTOAID	\$24.95
AUTOWRITER	\$14.95
BASICAIDE V2.0	\$9.95
B&R HANDYMAN VOL. I & II	\$14.95
BUSINESS PACK I V2.0	\$18.95
CLIP-ART VIEWER & CONVERTER	•
CLIPS & LABELS	\$12.00
EASY COME, EASY GO	\$15.95
FILE PRINTER	\$17.95
INVOICER V3.1 (64K)	\$19.95

LABEL MAKER DELUXE (DISK)	\$9.95
LABELWORKS, THE	\$24.95
MISSPELLER for SpellingAIDE	\$9.95
P.A.L. (Personal Appointment Lister)	\$10,00
PRINTWORKS, THE	\$24.95
RECIPER FILER (DP)	\$9.95
SEQuel	\$24.95
SMARTBASIC V1.x	\$29.95
SMARTFILER (DP)	\$9.95
SMARTLETTERS & FORMS (DP)	\$9.95
SMARTLOGO (DP)	\$15.95
SMARTWRITER ELITE	\$19.95
SMARTWRITER'S HELPER	\$10.00
SOFTPACK I V2.0	\$18.95
SPEEDYWRITE V2.0	\$39.95
SPEEDYWRITE SPELL (64K)	\$24.95
SPELLINGAIDE	\$19.95
SUPERBASIC PLUS	\$9.95
TAX HELPER 1992 (64K)	\$19.95
VIDEOTUNES	\$24.95

GRAPHICS DESIGN

ADAM GRAPHICS FOR IBM (DISK)	\$19.95
BOLD GLORY	\$16.95
BORDERSPLUS for PrintWORKS	\$10.95
CHROMANTICS	\$16.95
CLIPPER	\$15.95
FONTPOWER	\$14.95
GRAPHIXPAINTER WITH GRAPHIXPIX I	\$19.95
GROOVY GRAPHICS	\$14.95
IBM CLIP-ART FOR ADAM VOL. I & II	\$14.95
M&M GRAPHICS	\$9.95
PAINTAIDE with the SWIFT FONT KIT	\$16.95
PERSONAL CALENDAR UTILITY (64K)	\$19.95
POWERPAINT (64K)	\$29.95
POWERTOOLS	\$16.95
SHOWOFF I	\$18.95
SMARTPRINT PLUS	\$15.95
SMILEY FACE: WHAT AN ATTITUDE!	\$9.95
SPRITEPOWER	\$15.95
SWIFT LABEL PRINTSHOP (64K)	\$19.95
SWIFTPRINT (64K)	\$15.95
WAYNE'S TRAINS	\$19.95
YULE TOOLS I	\$16.95

VIDEOGAMERS

As we all know, the ADAM is also a ColecoVision Game System. This means that the over 100 cartridges made for the ColecoVision Game System will also work on the ADAM. For the last six or so years TeleGAMES USA has been distributing over 60 ColecoVision cartridges as well as cartridge games that have been converted to disk or digital data pack formats. N.I.A.D. highly recommends Alcazar, Boulder Dash and Rock'N Bolt.

TeleGames USA Box 901 - Lancaster, TX 75146 (214) 227-7694

PLEASE **NOTE:** Specify VOLUME #, CBLIC DOMAIN TITLE and DISK OR DDP SOFTW ARE

\$6.00

MISCELLANEOUS VOLUMES

arcade, brain, etc., programs complete with documentation.

DCLASSIC UNRELEASED CARTS VOL. #1-2: 2 different collections of cartridges: VOL. #1-Fall Guy, Video Hustler, M.A.S.H., Super Cobra, Memory Manor, Word Feud, Artillery Duel and Tomarc the Barbarian; VOL. #2- Cabbage Patch Kids: □ADAMAGIC ONDV VOL. #1-18: 18 difficopyrighted programs that were released to entertainment, adventure, productivity, education, business, telecommunications, boot ADAMCALC first and contain SmartWRITER or ADAMCALC documentation file(s) spreadsheet formulas, tutorials and demonstrations. DADAMCALC #1-34: different volumes different volumes of conto the Public Domain. All volumes require the user containing of commercially ADAMCALC Contains ಕ

games, interpreters, patches, compilers, word processors and other misc. programs. Volumes require the user boot CP/M 2.2 first, most programs contain documentation.

MIDI SONGS MNDV #1-18: 16 different volumes containing many assorted song □CP/M 2.2 CNDV #1-83: 63 different volumes containing CP/M 2.2 utilities contains SmartWRITER documentation for each game Adventures in the Park Enhanced, Yoke's on You and Wizmath. Some were never released and others wouldn't work on the ADAM in their cartrdige form. Each volume

files each for use with Mini-Recorder by Bonafide Systems for the MIDI-MITE.

CNLIA.D. GOLD VOL #1-5: 5 different volumes of enhanced SmartBASIC programs. Vol. I - Games, Vol. III - Text Adventures, Vol. IIII - Science & Education, Vol. IV - Home & Business and Vol. V - Utilities. Each volume contains documentation.

CPINBALL GAMES PNDV #1-8: 8 different volumes containing Pinball Construction Set pinball games which were designed with this public domain program by Coleco. Each volume is auto-booting and contains SmartWRITER documentation.

CSmartBASIC BNDV #1-38: 36 different volumes containing assorted SmartBASIC entertainment, application, graphics, patch, utilities and other misc. programs. Most volumes are auto-booting and contain SmartWRITER documentation.

CSmartBASIC UTILITIES UNDV #1-2: 2 different volumes containing SmartBASIC UTILITIES UNDV #1-2: 2 different volumes containing SmartBASIC

utility programs such as file copiers, backup utilities, patches and other misc programs. Volumes are auto-booting and contain SmartWRITER documentation.

SmartLOGO LNDV #1-5: 5 different volumes containing SmartLOGO USmartLOGO LNDV \$1-5: 5 different volumes containing SmartLOGO entertainment, application, graphics, utilities, patches and other misc. programs. Volumes require the user book SmartLOGO first, contain SmartWRITER documentation. □SOLO-ADVENTURE PACK VOL. \$2-3: 2 different volumes of Solo Adventures.

for use with Mage Quest by Reedy Software. Each volume requires the user to boot Mage Quest first and contain SmartWRITEA documentation.

Supperior Software ENDY VOL. \$1-4: 4 different volumes of commercially copyrighted programs that where released to the Public Domain. Vol. I - Pro Golf Champ, Vol. II - LinkBuilder, Vol. III - AFL Football and Vol. IV - SuperiorBasic V3.0. □UKAS MINI-REVIEWS VOL. #1-2: 2 different SmartFILER ich volume contains documentation in SmartWRITER form or in the program. databases with

boot SmartFILER first and then follow the included instruction sheet on how to DVIDEOTUNES SONGS VNDV \$1.4: 4 different volumes containing assorted song files each that are for use with VideoTunes by FutureVision. mini-reviews of hundreds of software and hardware products. Requires that the user containing

to be viewed / edited in PowerPAINT, ShowOff I, etc.

PAINT PALETTE: For use with PowerPAINT. GRAPHICS VOLUMES

O.G.P. PIX VOL. \$1.4: 4 different volumes of 13 picture files for use with the Coleco Graphics Processor. All pictures are taken from Coleco / ADAM programs, and carts through the use of the cartridge version of The Coleco Graphics Processor. ON & B PIX VOL. #1-32: 32 different volumes of 13 SmartPAINT format picture files ¥ 80

Contains SmartWRITER documentation.

PAINTFORMS VOL. \$1-4: 4 different volumes of assorted letterheads, labels font LIPAINT PALETTE: For use with PowerPAINT. Will provide you different shades of color, where normally the total number of colors as accessible is 16.

files and miscellaneous graphic files for use with PowerPAINT by Digital Express.

[DAINIMATES VOIL \$1-15: 15 different volumes of clip-art, sprite and font files for use with PowerPAINT, SpritePOWER and CLIPPER by Digital Express, The Print Works or The Label Works by Walters Software Co., and other assorted programs.

[DPD SIGNS SNDV \$1-4: 4 different volumes containing SignSHOP/NewsMAKER graphic files for use with these programs by Strategic Software. Volumes requires the user boot SignSHOP/NewsMAKER flist and contain SmartWRITER documentation.

☐REEDY ART GALLERY VOL. #1-2: 2 different volumes of 13 SmartPAINT formet owerPAINT and other programs which support the SmartPAINT format. picture files to be viewed in SmartBASIC V1.0 with the included loader program or in

riewed in SmartBASIC V1.0 with the included CBpicFAST program or in PowerPAINT, JRLE PICS VOL. #1-4: 4 different volumes of RLE picture files which can be

ENTERTAINMENT VOLUMES
30N): Great graphic chess game which was

developed

in CP/M

□ A-CHESS (SARGON): Great graphic chess

contains SmartWRITER documentation

and modified by Chris Braymen. documentation on how to use.

QADANWARS II: A simulation Comes on an auto-booting media and includes

Contains SmartWRITER documentation. experienced by you friendly ADAM retailers. of the real life pitfalls and successes which are)AM retailers. Great graphics and sound effects.

□CHESS SOLITAIRE: Great graphics version of chess where you try to guess the moves of the masters (15 different classic games are included). Also contains a second game, Knight's Tour, and documentation in program.

□JEOPARDY: Coleco supergame pack of the popular televist Fabulous game with great graphics, multi-player ability, load / save Fame options as well as an instruction sheet. television games (game and a Hall show.

☐ MOAUG PHRASE PAK: An additional 300 phrases for use with Phrase Craze by Reedy Software. Compiled by George Drank. Contains SmartWRITER documentation. □SUPER DAM BUSTER: Supergame version of the cartridge with added screens and Hall of Fame. The only flight simulator available for ADAM and one of the best ☐SUPER BUCK RODGERS: This is the supergame which comes with the ADAM Computer and is offered here for replacement in the case of damage to your original.

games ever made. Are you good enough to defeat the NAZI forces?

SUPER DONKEY KONG JR - 5 SCREEN.: Coleco's in-House version of Super

Donkey Kong Jr. with an additional 5th play level, MARIO'S BAKERY (accade version doesn't even have this levell). This version automatically runs through all screens.

CSUPER SUB-ROC: Coleoc supergame pack version of the Sub-Roc carridge. This is a tremendous 3-D arcade action game with great graphics and a Hall of Fame

option as well as an instruction sheet.

ITEMPLE OF APSHAI Revision 2: Epyx supergame pack which was never released. This is a role playing adventure with graphics and some arcade sequences. DISK and DDP not compatible. Comes with instruction sheet.

ITHE ABOMINABLE SNOWMAN: Search the Great White North for the illusive.

Abominable Snowman. Be careful in your quest, there are many pitfalls that you ≦

face. Contains SmartWRITER documentation.

ITHE BEST OF B.C.: A two supergame pack with B.C.'S QUEST FOR TIRES and B.C. III. GROGIS REVENGE developed by Coleco of Canada. Help Thor past obstacles to find Cute Chick and to find the Meaning of Life.

ITHE BEST OF ELECTRONIC ARTS (Pinball Con. Set / Hard Hat Mack): Coleco

supergame pack contains two great games in one package. New bug free version w/ 2 demo pinball games and an instruction sheet. Add \$4.00 for 40 page manual.

ITHOLL'S TALE: Coleco supergame pack originally developed by Sirius Software.
This is a children's adventure game with good graphics and offers a strong challenge as well as an instruction sheet.

UTILITY VOLUMES

□ ADAM UTILITIES: Coleco in-House utilities, test and demo programs contained on an auto-booting media. Memory expander required for some of the system testers. Also, includes Adam Diagnostic and an instruction sheet.

COLECO GAME COPY: Coleco in-House cartridge copy utility as well as a media

backup utility roled into one program. Will copy most of the available cartridges.

COLECO IN-HOUSE FROGRAMS: Six separate programs: three diagnostic programs along with the Tunnel'N Tolls, ADAM and Music demos.

IE.O.S. DISK MANAGER: Coleco utility program which was supplied with the 5 1/4" 190K Disk Drive. Also, contains the most current Coleco ECS Revision, Rev. 7.

CHELPER'S FRIEND: Patching program for Hexace Software's popular smartWRITER'S HELPER. Allows owners of SmartWRITER'S HELPER to customize their backup copies with added embedded printer codes and change the default

advanced machine code programmer. Contains manual in SmartWRITER format.

MEDIA MATE: Three tremendous utility programs for editing data packs and disks in SmartBASIC V1.0. Contains informative SmartWRITER documentation. devices. Comes with documentation file on media.

MacADAM: Z80 / EOS Assembler written in machine code for the intermediate

in Smanback DMIDI DRIVERS & DEMOS: programs along with technical SmartWRITER documentation. A collection information 옃, **Q**, the MIDI MIDI SmartBASIC V1.0 ₹ setup. Contains utilities

DMIDI UTILITIES: A collection of 6 mapper utilities, midi format 1 song fil SmartWRITER documentation files and 1 CP/M or TDOS compatible midi utility. mapper utilities are SmartKEY driven and machine language programs. QUICKOPY V5.0: Excellent machine code copy program (block and file) with

additional ramdrive and ramcopy sonware. Company and disk drive sizes, Contains a 37 page manual in SmartWRITER format, and disk drive sizes, Contains a 37 page manual in SmartWRITER format.

QR.I.D. TEST: Coleco's own in-house utility designed specifically for testing the operation of the 5 1/4" 180K Coleco made disk drive. No technical knowledge required, just boot-up and wait for the results. Contains SmartWRITER documentation.

QSHAPEMAKER: Great SmartBASIC V1.0 utilities for creating shapes and placing SHAPEMAKER: Great SmartBASIC V1.0 utilities for creating shapes and placing

SOFTWARE BACKUP V1.0: Allows for the backing-up of bootable programs onto

occur by purchasing disk from us instead of ddp and then copying over to ddp.

ISTRATEGIC SOFTWARE PATCHES: SmartBASIC V1.0 programs for p

Strategic Software's SignSHOP, NewsMAKER, MultiWRITE, MicroWORK Backup media. Most programs work fine. Contains SmartWRITER documentation.

SPEED CHECK V2.0: Enhanced Coleco digital data drive test program to a the same media. Up to six self-booting programs can be placed on one Software proper speed operation of drives for best read / write performance. MultiWrite Word Processor. Contains SmartWRITER documentation. Strategic somware's signSHOP, NewsMAKER, MultiWRITE, MicroWORKS, etc. programs for use with dot matrix printers as well as major enhancements made to the Best results will

patching

PRODUCTIVITY VOLUMES

formatting, etc., ADAM files and 5 1/4" 160K or 320K disks on an IBM compatible. Requires an IBM compatible with a 5 1/4" drive running PC-DOS or MS-DOS. Comes □ ADAM <--> DOS 1.0: A shareware IBM compatible program by Bor Systems that allows for the transferring of ADAM files to an IBM and vice versa. options include: directories, file deleting, hex dumps, initializing, block copies

with documentation file. DISK ONLY.

features of ADAMLINK I and the added ability to up and download ASCII files. Comes with addendum instruction sheets to the ADAMLINK I manual.

LAUSTRALIAN SmartRASIC: Enhanced SmartBASIC VI. 0 with SmartKEY display of some of the most often used SmartBASIC occuments (ie: RUN, LIST, SAVE, etc).

DASEBALL STATISTICIAN: Comprehensive stat compiler for pitching, batting and team statistics with full line of etil features, save option, pint features for ADAM Printer or dot matrix by Wizard's Lair. Comprehensive instructions in SmartWRITER.

are provided as well as a picture file conversion program. Requires memory expander.

**DCOLECO PRESENTS: SOFTWARE: Coleco self-booting database program containing lists of planned Coleco software and cartridges for the ADAM and ColecoVision. DDP ONLY. □COLECO GRAPHICS PROCESSOR: Coleco's graphic design utility used to create graphics for cartridges and supergames. Now, on an EOS media. Instructions

□daVINCI: Great graphic design utility from France using a point-and-click method of operation along with a SmartBASiC V1.0 utility to convert daVINCI files into GraphicPAINTER files. Combains SmartWAITER documentation, DISK ONLY.
□DAWGONE DAWGS: This program will, on a consistent basis, select the dog most likely to win at the local dog track through data that is inputted by the user. However, the program will be supported by the user.

this is not a get-rich-quick scheme. Contains SmartWRITER documentation.

IFLASH FACTS: MUSIC STUDIES: Eight fleshcard files for use with the Electronic Fleshcard Maker by Coleco dealing exclusively with music theory. Requires the user boot E.F.M. by Coleco first and contains SmartWRITER documentation.

IFRENCH BASIC: Great modification of SmartBASIC V1.0 with demos. Must have version for the serious programmer that includes 10 new commands for using sprites

windows, easy color changes, etc.

MARKET MONITOR: Coleco of Canada management system program for the personal investor. Not totally bug free. Contains SmartWRITER documentation.

SimplePAINTER WITH Simple F/X: A tremendous collection of graphics utilities which extend the capability of PowerPAINT along with a number of conversion programs. Contains SmartWRITER documentation.

SmartBASIC V1.0: Coleco's original SmartBASIC which came with the ADAM. This

is available for replacement on DDP / DISK and has been enhanced for disk owners.

SmartBASIC V2.0: Coleco's extended / enhanced version of SmartBASIC V1.0

(49K versus 29K) with memory expander access, but is not fully compatible with V1.0.

Contains SmartWRITER documentation.

SmartBASIC V2.0 40 COLUMN: 40 column text version of SmartBASIC V2.0

which works in STDMEM or EXTMEM modes. No longer do you have to bother with a

string inputs, formatter and backup programs. Contains SmartWRITER documentation.

SmartBASIC CONSTRUCTION KIT: Designed to aid the novice programme non-standard 31 column screen. Contains SmartWRITER documentation.

SmartBASIC V2.1: Nice modification of SmartBASIC V2.0 that adds macros driven and auto-booting. Contains SmartWRITER documentation.

SP-1 CUSTOM PRINTER SOFTWARE: Specialized software patches for use in better understand the many commands resident in SmartBASIC V1.0. Fully menu ₫

SmartWRITER. Used to imbed software commands. Available for the following printers: Panasonic 1080 / 81 / 82 / 83, Star G10 / G20, Epson FX / RX, Blue Chip, Olympia

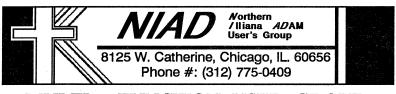
R80, Brother 2024L, Smith Corona Fasttext 80 / D2000, Oki 182 / 192.

IT-DCS V4.58: Super enhanced version of CP/M 2.2 which operates much like MS-DOS. Many new features, Available on 2 - 5 1/4* 160K Filippy disks, 2 - 5 1/4* 320K disks or 1 - 3 1/2* 720K disk: please specify when ordering. Manual in Doc file. For printed 40 page owner's manual add \$4.00.

ITAX PLANNER: Coleco of Canada business software which will create a clearer

and more complete picture of your tax situation. Contains SmartWHITER docs.

**ITRACKER: Allows for the tracking of Hurricanes in the Guilf Coast area. Enter and y coordinates and then save them as a file or view the hurricane in action



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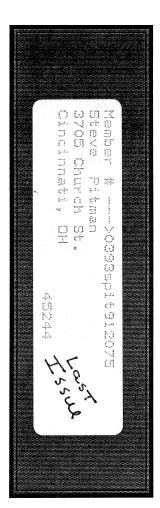
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