



mini'app'les

apple computer user group newsletter

VOLUME VII No 6

JUNE 1984

CALENDAR

CALENDAR

CALENDAR

WHICH	WHEN	WHERE	WHAT
Amateur Fair	Sat Jun 2	State Fairgrounds	MN's largest swap show.
St. Paul Branch - Note 3	Tue Jun 5 7pm-10pm	Mahtomedi Fire House Hallam & Stillwater.	UNIX by Len Munson
Pascal & Apple /// Note 1	Wed Jun 6 7:30pm	Minnesota Federal 9th Ave S Hopkins	Pascal & Apple /// Special Interest Group Meeting.
Macintosh Note 9	Mon Jun 11 7:00pm	PBS 44th and Upton, Mpls	Mac SIG kickoff
Dakota County Branch	Tue Jun 12 7pm-10pm	St. John Neumann Church 4030 Pilot Knob Rd, Eagan	Note 7
Board Meeting Note 2	Wed Jun 13 7:30 pm	Norwest Bank S 1st St., Hopkins	General club business. Meeting is open to all members.
REGULAR MINI'APP'LES Note 2 Map inside	WEDNESDAY June 20th Prgm-7:30pm SIGS-8:30pm+	Lincoln Center (old Lincoln High) 88th & Sheridan Ave. Bloomington	Planning Pro-Files: Business SIG Demo of a low cost VisiCalc Financial model
Educational SIG	Wed Jun 20	After Regular Mtg.	Note 12
Business SIG	Wed Jun 20	After Regular Mtg	Note 10 - //c AppleWorks demo.
New Hope Branch Note 16	Tue Jun 27 7:00pm	Rockford Rd Library County Road 9	
Minnetonka Branch Note 8	Wed Jun 27 7:30pm	Glen Lake Community Ctr 14300 Excelsior Blvd room E	
St. Paul Branch - Note 3	Tue Jul 3 7pm-10pm	Mahtomedi Fire House Hallam & Stillwater.	
Pascal & Apple /// Note 1	Wed Jul 4 7:30pm	Minnesota Federal 9th Ave S Hopkins	Pascal & Apple /// Special Interest Group Meeting.
Macintosh Note 9	Mon Jul 9 7:00pm	PBS 44th and Upton, Mpls	
Dakota County Branch Note 7	Tue Jul 10 7pm-10pm	St. John Neumann Church 4030 Pilot Knob Rd, Eagan	
Board Meeting Note 2	Wed Jul 11 7:30 pm	Norwest Bank S 1st St., Hopkins	
Medical SIG Note 13	Wed Jul 11 7.00pm	Health Associates Ctr. 2221 University SE, Rm 115	
REGULAR MINI'APP'LES Note 2 Map next month	WEDNESDAY July 18th Prgm-7:30pm SIGS-8:30pm+	UNIVERSITY MINNESOTA ST. PAUL Room B45 Bldg 412 Near State Fair Ground	To be announced.
Educational SIG	Wed Jul 18	After Regular Mtg.	
Business SIG	Wed Jul 18	After Regular Mtg	Note 10
New Hope Branch	Tue Jul 24	Rockford Rd Library	Note 16
Minnetonka Branch	Wed Jul 25	Glen Lake Community Ctr	Note 8

Notes:

(See page 2 for telephone numbers)

- | | | | | |
|--------------------|-----------------|----------------------|---------------------|------------------------|
| 1. John Schoeppner | 5. Scott Ueland | 8. Martin Thames | 11. Bill DeCoursey | 14. Steve George |
| 2. Mark Abbott | 6. Dan Buchler | 9. Mike Carlson | 12. Jane Chatterjee | 15. Frank M. Ringsmuth |
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ZOOM

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INFORMATION

This is the Newsletter of Mini'app'les, the Minnesota Apple Computer Users' Group, Inc., a non-profit club. Articles may be reproduced in other User Groups' publications except where specifically copyrighted by author.

Questions

Please direct questions to appropriate board member or officer. Technical questions should be directed to the Technical Coordinator.

Membership

Applications for membership should be directed to the Membership Co-ordinator: Ann Bell 544-4505
8325 39th Avenue N.
New Hope,
Minnesota, 55427

\$12 buys membership for one year. New members and persons renewing after letting membership expire, pay a \$5 administration fee. Members receive a subscription to this newsletter and all club benefits.

DOMs and MSDs

The 3 most recent DOMs (Disk of the Month) are available at meetings for \$5/disk or any DOM may be ordered by mail for \$7.50/disk. MSDs are \$15/disk at meetings or \$17.50/disk by mail. Contact

Terry Schoeppner,
Box 241, Inver Grove Heights
MN, 55075 (455-8613)
Members may have DOMs copied to their own media. Contact Chuck Thiesfeld - details within this newsletter.

Dealers

Mini'app'les does not endorse any specific dealers but does promote distribution of information which may help club members to identify the best buys and service. Consequently, the club does participate in bulk purchases of media, software, hardware and publications on behalf of its members.

Newsletter Contributions

Please send contributions directly to the Newsletter Editor. Hard copy binary or text files are preferred, but any form will be gratefully accepted. Deadline for publication is the 1st Wednesday of the month preceding the month in which the item might be included. An article will be printed when space permits if, in the opinion of the Newsletter Editor, it constitutes suitable material for publication.

Advertising

Direct Advertising inquiries to our co-ordinator Eric Holterman at:
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ANNOUNCEMENTS

Minnetonka Branch by Steven E. Baker

The following individuals have taken over the 1984/85 leadership of the Minnetonka Branch.

Dick Peterson	Chairperson
Greg Kitchak	Vice chairperson
Steven Baker	Secretary/Treasurer
Hugh Kurtzman	Equipment Coordinator
Barb Kostial	Facilities Coordinator

The Minnetonka Branch meets on the fourth (4th) Wednesday of each month at the Glen Lake Community Center (Room E) located at 14300 Excelsior Blvd. in the Glen Lake area of Minnetonka. Meetings start at 7:30 p.m.

June Mini'app'les Meeting by Susan K. Vaughn

The PLANNING PRO-FILES financial planning system will be featured at the June Mini'app'les meeting. See article elsewhere in this issue. While at the session, you will learn about the program's capabilities, how it can enhance your personal financial plans, and how easily it can "toy" with alternatives in your projected lifestyle scenarios.

Mac Users

How about forming a MAC SIG? Mike Carlson of PBS (who is currently also the VisiCalc SIG coordinator) has offered to help start up this important SIG. Mini'app'les can provide an excellent umbrella for a MAC Special Interest group: organizational support, newsletter, distribution system, IAC support, etc., etc. If you think you might come to a MAC SIG meeting or participate in the running of such a SIG meeting, please call Mike at 929-4120. A start-up meeting will be held on Monday, June 11, with the intent of continuing to meet on the 2nd Monday of each month!

KSTP Computer Talk

Tune in to KSTP (1500 AM) every Saturday at 5 p.m. to hear Computer Talk. Mini'app'les will supply an 'expert' for this show on the 2nd Saturday of each month. If you have an Apple related question, here's your chance to get on the air! Note: Peter Gilles and Arsen Darnay were our representatives in April and May respectively and they did a great job!

!! APPLAUSE APPLAUSE !! from Steve George

The User Info Faire held recently at the Science Museum of Mn., attracted a nice crowd of both current and prospective micro users. A very capable team of Mini'app'les volunteers staffed our tables. Regulars, John & Terry Schoeppner and Hugh Kurtzman, fielded questions from the ever-present group at our display.

There weren't too many minutes of relaxation for any of us, but especially for Steve Baker who had expected to stay for a few hours, but ended up volunteering more like 11 hours! The reason? MAC. The Science Museum had borrowed a Mac from Dayton's, and asked if we'd like to have it for the day (silly question!). So Steve (the only one of us with experience on a Mac) got ALL the Mac questions and ably demonstrated some of its features.

Thank you all for your time and knowledge!! I think we helped displace some common 'computer-phobias' held by a few non-owners, and also were helpful to novices and more experienced users, alike.

Thanks, too, to Computer Professionals who allowed us to use an Amdek Color II monitor for display of our Educational DOM and some of the games.

And, a hearty Welcome to the new members who joined our group!

Home Banking by Dan Buchler

You may have read recently that Bank of America (and other banks) are offering a HomeBanking service. This service allows one to sign on to the bank computer, transfer funds, pay bills, track checks as they are cleared or your deposits as they are posted. It is the latter feature which makes HomeBanking an interesting service compared to F&M Marquette or TCF Pay-by-Phone and other already existing services.

Now HomeBanking is available in Minnesota. The service costs \$8/month, but a special deal is offered through June 30th wherein you may obtain the first 3 months free. Call 1-800-652-1111.

GOTO 8

Announcements Continued from page 7

Business Sig
by Dick Marchiafava

Summer Meeting Schedule

The Business SIG meetings will be suspended for the summer season. We will be putting more emphasis on the SIG cluster after the main club meetings. The summer schedule starts with the June 20 meeting. The subject for the SIG cluster for June will be a demo of AppleWorks presented on an Apple //c.

AppleWorks is a powerful integrated software package that combines wordprocessing, spreadsheet and database applications. It runs on the Apple //e and Apple //c. The program is a version of 3 Easy Pieces by Haba Systems that runs on the Apple ///. AppleWorks uses the ProDos operating system. The commands are consistent throughout the program. With AppleWorks one can have up to 12 files open at once, and can transfer data between files.

I understand that the wordprocessor program allows for extensive control of the capabilities of the Apple ImageWriter printer. I don't expect to see the printer capabilities demonstrated at this meeting.

Released, but not seen yet is a program called "JANE", which is described as similar to AppleWorks, and runs on an Apple II+.

The April program featuring APPLEWRITER II was attended by 25 to 30 persons who were very interested in the presentation. Those attending were shown how to use WPL to create and use glossaries with APPLEWRITER. Thanks to Al Peterman and Chuck Boody for a very interesting and useful presentation!

Gene Kasper demonstrated THINK TANK, a wordprocessor that helps one organize ideas while writing. THINK TANK seems to be an excellent choice for those who do a lot of report writing. It's an interesting product. Thanks, Gene!

The May program about Bookkeeping and Accounting was attended by 25 to 30 persons who seemed vitally interested in the demo of the BPI GENERAL LEDGER, the popular accounting package for the Apple computer. The presentation by Henry Lewis was good humored, informative and well received.

Those attending were also given details of the BPI Update which allows users to trade in or trade up to the new, faster, more powerful versions of the BPI GENERAL ACCOUNTING program that replaces the old GENERAL LEDGER.

This was followed by a discussion and demonstration of bookkeeping applications using spreadsheets that many found useful.

Every one have a good summer! I will see you at the general meetings and on these pages.

Thanks! Dick

Educational SIG
by Jane Chatterjee

June Meeting: Wednesday June 20, after the main meeting. Edina Elementary teacher, Jo Ann Blatchley, will demonstrate her use of MicroQuest, a commercial utility for producing quizzes and instruction.

May 9, Educational Software Lab, at St Paul Vo-Tech: We had a very successful meeting, thanks to Daryl's arrangements. We had about 50 educational software packages available, including Millikan math, Spinakker, Learning Company, MECC and others. We hope to repeat this type of meeting towards the end of the year.

MECC: MECC is now independent of the state, as a private software house. The new title is the Minnesota Educational Computing Corporation. It is reputed to be the largest educational software publisher in the country. They have certainly produced a great deal of new software over the last year. (Note: Club members may no longer order MECC diskettes through the club - Ed.)

Science Museum of Minnesota: I have just received their summer course schedule. They are offering a variety of computer courses and day camps, on both programming and application software.

Networker Bulk Purchase
by Steve George

Contact Steve George if you are interested in a bulk purchase deal on the Networker modem and software. See last month's newsletter for more details.

Rana 8086 Bulk Purchase
by Dan Buchler

I am thinking (but have by no means as yet made up my mind) of taking the plunge and buying the Rana MS-DOS sub-system. If there are others in the same boat, I would love to talk to you. Maybe we can help each other decide and maybe we can come up with a bulk purchase plan! Please call me at 890-5051.

GOTO 10



Userfest/Chicago

Impressions of the Apple/IBM Faire
by Steve George

Overall, my impression is that the Userfest was much smaller than expected, Apple and Apple related products were well represented, and that the attendance level was marginal.

My allotment of 2 days to see everything was definitely overkill: by 4:00p.m. the first day we had seen everything at least twice (except for WANG).

Of the 115 total booths, the majority seemed related to Apple. The manufacturers and representatives present included: Apple, BASF (disks), Dialog Info. Services (information retrieval), Digital Equipment, Dark Star (Snapshot card), Dokay (16k, 80 col, etc.), Encyclopedia Britannica (educational software), Fourth Dimension (disk drives), Hayes Products (joysticks), IBS (IBM look-a-like), Panamax Line Conditioning, R. H. Electronics (Guardian Angel power supplies), Relax Technologies (power controllers), Seagate, Southern California Research Group (quikLoader, Paddle-Adapple), Spies Laboratories (intelligent printer card), Street Electronics (Echo speech synthesis), Wang Labs, Western Union, Zicor (intelligent keyboard), and ZOOM Telephonics (modems).

Three user groups showed their wares and accepted memberships: NIAUG (Northern Illinois), Apple-Dayton (Ohio), and of course A.P.P.L.E. (Washington), plus the IAC. I spoke briefly with Terry Tufts (NIAUG Newsletter editor) about the changing role of user groups and to Roger Siervogel (Apple-Dayton review coordinator) about their club's 'AppleChips' kits for user-servicing of motherboard and disk drive chip problems.

It was nice to see a few of the software developers/publishers too: Baudville (Pixit graphics processor), Data Transforms (Fontrix), DoubleStuff Software Development (double hires graphics), Graphware (Charts Unlimited), Lamplighter Software (Language Lab), Learning Lab (educational), Milton Bradley (educational), Penguin (graphics and games), Silicon Valley Systems (Word & List Handler), and Zoom Software (Zoom Grafix, games, business).

Magazines and publishers were in abundance also: Computerworld, Creative Computer, Micro Times, Mini Micro Systems, Softalk Publishing, Wayne Greene Publications, and Ziff Davis Publishing Company.

The balance was primarily local or CA retailers whose prices didn't set many fires.

For example, both BASF and Elephant disks which have sold recently on the local scene for \$12.88 and \$14.95, respectively, were considerably higher. Even the Oriental 80 col and Z-80 cards were \$10 to \$20 more than locally here in the Twin Cities. Disk drives and 1/2 heights were reasonably priced. Very little else was a tremendous value even though most booths touted 'show specials' such as Koala Pads for \$109.

It was quite a thrill to finally see some of the 'personalities' in person, including: Margot Tommervik (Softalk Editor), Roger Wagner (Assembly Lines: The Book), and Jim Sather (Southern CA Research Group).

Apple Computer held the prime location and probably the largest display area. I think they were very well represented and basically stole the show. The primary feature was the big Mac we've all seen pictures of: an oversized Mac with a 7' screen for group presentations. Hourly (or so it seemed), a variety of presentations was given either by Apple employees or by software developers (including the new MacFORTH and MultiPlan).

GOTO 10

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Userfest/Chicago Concluded from page 19

Announcements Continued from page 8

Additionally, about 4 (normal sized) Macs, a Lisa, a ///, 3 //e's and 3 //c's were set-up showing how each performed with a specific piece of Apple software and hardware, including the Rana/8086 co-processor combination. Most small-monitor displays were augmented with a 19" monitor so that many 'layers' of on-lookers could see. Apple did very well having a rotating shift of personnel for each machine/software combination. The demos weren't 'canned' and any and all questions were fielded as they arose. Each of these mini-demos was free-flowing and allowed for individual hands-on tinkering. AppleWorks and the new Apple modems were demonstrated, as well as several 'Beta' (near-final, pre-release) versions of up-coming software releases for the Mac.

(A local 15 year-old created exceptionally detailed pictures with great ease and speed, and fine-tuned them quickly with Mac's Big Bits option (now that's hands-on!). He was so proficient with MacPAINT that the Apple show coordinator made the impromptu decision to include him on the final day's agenda of Mac demos!)

Apple did themselves proud: they were professional, relaxed, and informative. Although on occasion I have (sigh) recommended that an individual get an IBM/compatible for a specific situation, Apple again made me feel proud to own such a versatile machine and to be 'associated' with such a colorful, exciting and innovative company.

(ProDOS was not to be found and I overheard one irate individual taking several Apple employees to task regarding its availability.)

Most of the other retailers had //e's and //c's on hand to demonstrate software and hardware.

Next to a few no-show's, the most disappointing booth was the IAC, where they handed out Nibble Magazines, herb tea and little if any info.

Investment SIG by Eric Holterman

Our last meeting before summer recess was Thursday, May 17. John Pawlik went over Omega Microware's Chart Trader Plus demo disk and told us about the American Association of Individual Investors. Then we had an informal discussion on a number of items.

I would like to extend the SIG's thanks to all who have helped with the SIG operation and presentations. Among those club members who have stepped forward to help over the past few months are John Pawlik, Steve Flister, Dick Velner, Stan Robins, Don Steinkamp, Harold Hoffmann and Amos Roos. I don't think I am alone in thinking that our meetings have improved over the last year, and it's largely due to the active involvement of more SIG members. Our future program looks bright, with more offers of help coming from members who attended the last meeting. This is what makes a volunteer, self help group like our SIG, and the whole of Mini'app'les, tick.

As we did last year, we will suspend our meetings during the summer, so our next meeting will be in September. In the meantime, we do have some public domain software, such as ISAAC, and demo disks of some commercial programs such as Chart Trader Plus and Cyber Scan. These programs may be borrowed. Call me at 454-5628 for details.

GOTO 13

QUESTIONS?

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COMREX CR-II

A Daisy Wheel Printer Review
by Gene Hatfield

Since most of us need a printer and some have need of a letter quality printer this article provides my views on the Comrex (and its look alikes). Also included is a look at the KB-50 keyboard, an option for the printer.

First, I must say that Mike Carlson of P.B.S. did a good job of promoting and demonstrating the product, as well as providing competitive pricing. The CR-II had been "work tested" by Mike before I arrived and was hooked up with the printer card in an Apple][for me to see it operate before I left the store. A far cry from the old "hot off the shelf, still sealed for your protection" days we used to get from some stores!!

The COMREX-II is a daisywheel printer rated at 12 to 13 characters/second. It lists for \$699. It uses a mechanism similar to that of the Brothers HRI and will accept daisywheels made for the Brothers and other compatible printers. An optional keyboard connects by cable to the printer turning the combination into a high quality electronic type writer. The keyboard sells for around \$200.

The manual is well laid out and pictured; just remember which language wheel you selected. There is step by step instructions for all the switches on the back side. The front "control switches" seem to be self-explanatory but there are a couple of things to remember!!

Even though the printer is rated at 13 cps. it gets the job done in what seems like a much faster speed and will do up to 4 copies with carbon paper.

My printer came with a 3K buffer. This seems enough but there is also a 5K option.

The following describes the operation of the push button switches on the front of the printer:

1. TOF (Top of Form);
Push SEL so light goes out, then place paper down behind roller as in any typewriter, and press TOF. No need to hold switch down; it will open "paper bail", bar that holds paper to roller, and stop about 1.2 inches above typing line.
2. Press SEL again so its light is on and you are ready to print.
3. Press SEL and TOF (Top of Form); NOW YOU MUST REMEMBER that when you finish this

sheet YOU have to remember to press SEL, then TOF and roll out paper.

If the printed page is long enough to get to the bottom of the paper DO THIS ANYWAY.

4. IF you DO NOT—the next time you press TOF the PAPER BAIL will NOT OPEN and YOU MESS UP YOUR PAPER!!

5. COPY
This is a rather unique feature which allows one to select text, which has been sent to the buffer, and send it onto the printer a 2nd. or subsequent time. The manual describes the somewhat involved procedure which will work as outlined but you will have to do it SEVERAL times before you get comfortable at doing it.

DIRECT PRINTING: This is the term used in the manual to describe using the printer to print from within a program or as a LISTING device. From BASIC I used "control I 80N" to obtain listings 80 characters in length.

You can use a RED ribbon in the lower slot or a correction ribbon. The red will not last too long and are somewhat scarce; at least my replacement one has been on order for 3 weeks or more.

CONTROL CODES: My word processor (Word Machine) allowed me to use the ESC in combination with certain letters (see below) with no problems.

ESC+w	=	Shadow print
ESC+f	=	Double print (not as good as shadow as far as I see.)
ESC+e	=	Underline
ESC+&	=	Cleared setting
ESC+a	=	Red print
ESC+b	=	Black print (if had been in red)
ESC+u	=	Sub-script
ESC+d	=	Super-script

You can set margins, horizontal position, vertical position page length, character pitch, line pitch, proportional spacing and all sort of other goodies with ESC codes (HEX is also given).

A few notes about faults lest this sound like a manufacturers promo!!

The printer should be put on a separate stand for vibration (as with any daisy wheel

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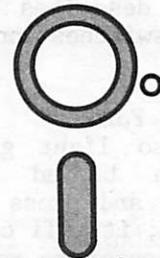
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Comrex Concluded from page 11

Announcements Concluded from page 10

(inter) and at a low level. (Mine is at 18 inches off the floor.) (I think Gene sits on the floor when he types! - Ed.) The keys are well down inside and you will want to see in there if you use the separate keyboard!!

The printer is not too noisy with the plastic shield in place.

The "paper guide" slides too easily in the paper support because it is plastic rather than metal that could use spring loading. Care has to be taken as it tends to move a little further left with each sheet put in and thereby the left margin as well as the right will change.

The CR-92011/KB-50 Keyboard

The Keyboard connects to the printer through a cable and allows you to take over control of the printer at any time. I use it for envelopes, general typing and inserting things into a sheet where it would be too hard to set up with the word processor.

The keyboard really takes some getting used to!!! First the keys are in a slight cup shape from the top numeral row to the space bar.

Second, many of the characters are out of place, such as @, ", :, + as well as inverted ? and other symbols used with different daisy wheels.

There are 3 function switches, labelled I, II and III. These allow various features to be invoked, like alternate characters on different print wheels. I used each of the three and printed a card for the top of the printer so that I could see when I needed to switch between I and II. There are times when the second one is preferred so this is a good idea. Unless you use a Symbol print wheel you will not find the third position that different.

There is an indicator light that comes on for UPPER-CASE in either the momentary or CAPS lock mode, which is nice. Line indent and tab are very flexible and auto repeat works fine. HALF-BACKSPACE, SUPER-SCRIPTS and SUB-SCRIPTS work as they should with no fuss or muss. You can even set a tab for decimal points to be aligned!!

A neat little feature is the hole in the "paper meter" and by holding the spacebar you can draw a horizontal line or by using the super/sub-script (up/down) draw a vertical line.



MONEY MATTER\$ Review
by Eric Holterman

I expect to have the second installment of the MONEY MATTER\$ review in the July newsletter. I missed the May newsletter due to an overbooked schedule. Since the Investments portion of the program is being revised and will soon be available, I will cover the revised version in July.

Mini'app'les Board Member Update

Scott Ueland and Subir Chatterjee resigned from their newly acquired positions of Vice President and SIG Director II, respectively. The President has appointed, subject to board approval, Mark Abbott and Dick Marchiafava to those positions.



Mini'app'les Software Disks
MSDs

3 Great Disks:

- Mini'Scrip Checkbook Financial System - MSD #1. A home and small business checking and accounting package by Leighton G. Siegel.
- Micro-mailer - MSD #2. Mail list program by Juris and Paula Ozols of Prairie Microsystems Inc. Magic Window though not required works well in conjunction with Micro-mailer.
- Higher Text Extensions - MSD #3. Contains Higher Print by Dan Buchler, Message Maker by Charles C. Boody and Higher Word-processor by Don Hagberg.

Higher Print provides a high density print capability with a selection of fonts and more if you own Higher Text from A.P.P.L.E. The newsletter headers and logo are printed with Higher Text.

Message Maker requires that you own HIGHER TEXT. It serves as a tool to create and display, on your screen, messages which scroll up and down, left and right and do other useful things.

Higher Word Processor is a easy to use line oriented text editor suited to letter writing and everyday home use. It integrates with Higher Print.

All MSDs are available at meetings, to members only, for \$15, or by mail from Terry Schoeppner for \$17.50. See classified ads.



DaisyWheeling

Low-Cost, No-feature Data Base
using Apple Writer II WPL
by Arsen Darnay

Recently someone (I think it was Steve George) mentioned the 'hidden powers' of Apple Writer II and mentioned the Word Processing Language (WPL) that comes with the package. Some time back I used that feature to build a simple, no-frills, but workable data base system using the language and Apple Writer II. Since many of you own the software and most of you will sooner or later need a simple but cheap data base system — for keeping mailing lists, say, or customer accounts, or something of the sort, I thought I'd tell how my system works.

I built a system without frills. All it does is keep records of variable format and length. I can add records to the set, 'flip' through them to find a particular one, and print either all or a subset on my printer. Record length is whatever I choose. Record format is whatever I want to make it. This is a 'dynamic' system in which you don't have to predefine the length of the records, etc. But, of course, it doesn't do much more than keep stuff for you either. Which doesn't mean that the Word Processing Language can't be used for more sophisticated purposes. It's just that I haven't had the need.

Let's take a hypothetical application — quotations that will go into a thesis or a book, for instance. The record might consist of the following elements:

- Author, Title, Publisher, Date, and Page Number
- The quotation itself, which may be of any length
- Comments by you.
- References to other publications.

The data set, of course, could equally well consist of sales records, showing customer, address, phone, contact, description, dates of contact, etc.

Write the records on Apple Writer in the usual way, but follow these simple rules: (1) leave the first two lines of each record blank, i.e. insert two carriage returns; (2) make sure that each records ends with a form feed command, .ff, but NOT followed by a carriage return; and (3) save the records under the same name but followed by an index number, i.e. File.1, File.2, File.3, etc.

Once you have your records, you can use the Apple Writer Word Processing Language to construct a program to look at and to print these records. Let's turn to that next.

The Word Processing Language is a simplified assembly code which lets you execute a series of Apple Writer commands — plus some extras — automatically from within the Apple Writer environment. All of the control commands that you can give from the keyboard can be written in the form of brief programs. The program is written on Apple Writer, saved to disk, and then executed by typing Control-P [puts you into print mode], DO MYPROGRAM,d1 [where you can use upper or lower case letters, and the drive command, of course, is optional]. The only thing to remember is that you must be on the Enter Text screen when you give the DO command.

The best features of WPL — and necessary features for playing data base management — are the ability to write loops and to use numerical variables which can be incremented and decremented.

Let's walk through a couple of programs and see what happens.

Take a look at Program 1, called FIND. You run it by typing Control-P and then DO FIND. The screen clears, and the program gives you two options — to scroll the file or to retrieve a specific record of your choice. Let's say that you want to look at the 13th record. When the menu appears, you select 'Retrieve a File' by typing a 2 and a RETURN. The program goes to the label GET. There it asks for the number of the record you want. Type 13 and RETURN, as in answer to an INPUT statement. In the next line, string variable \$B (the dollar sign, notice, goes ahead of the letter) is defined as consisting of the words 'File.' and \$A (which holds 13), hence \$B will equal File.13. Very well. In the next line, the program L[oadsFile.13 from disk and then falls through to the next line, the special WPL command QT, meaning 'Quit,' leaving the file in memory and on screen for you to do with as you please.

At this stage, you may want to revise the file, save it as usually, and do a Control-P, DO FIND again to look for another record to revise.

Things are a little more complicated when you wish to scroll through the file. This requires the use of a loop in which the following events transpire:

GOTO 15



Daisy Wheeling Continued from page 14

- (1) X is defined as 1 (PSX 1).
- (2) Memory is cleared (NY).
- (3) Text display is enabled (PYD — meaning Yes, Display).
- (4) \$A is defined as "File." (PAS FILE.=\$A).
- (5) \$B is defined as X (PAS(X)=\$B — the spacing is important).
- (6) \$D is defined as the concatenation of \$A and \$B (PAS \$A\$B=\$D).
- (7) The command is given to Load \$D, equivalent to the keyboard entry in Apple Writer of CTRL-L FILE.1,d1 (L \$D,d1).

The next seven lines print a prompt at the top of the screen and wait for you to give a command; then they route the program to appropriate places. If you don't want the loaded text to be overwritten by the prompt, it's best to start each file two carriage-returns from the top — hence that admonition earlier.

If you are scrolling forward and entered a RETURN, the memory is cleared (NY), X is made equal to X + 1, and the cycle repeats (PGO LOOP — equivalent to a GOTO command in BASIC or a JMP command in 6502 Assembly Code). If you're going backward, X becomes X - 1, and again the cycle repeats. What happens is that File.1, File.2, and then File.3, etc. are shown you in succession. And if you want to quit at any time, you can type q, followed by a RETURN, and you'll be left with the file in memory. (Notice here that your answer to the prompt can be either a capital or a lowercase Q — with the same result).

The program becomes understandable (to those of you who use Apple Writer II, anyway) when you keep in mind that most commands — like L, B, NY — are just the regular Apple Writer control commands without the CTRL up front. So B is CTRL-B, which always puts you at the top of the screen. NY is CTRL-N (for New) followed by Y for Yes — which blows out everything in memory.

The other commands are fairly mnemonic. P is the universal prefix. PGO is GO, PIN is INput, PCS is Compare Strings, PPR is PRINT (as in BASIC), PSX is Set X equal to something else, PAS is Assign String, etc. A 'P' by itself has no function, hence it is used to put comments into the program. It's equivalent to BASIC's REM. The labels at the left of the listing are merely points of destination for the program, and it's up to you to invent them as you please.

To run this program, you should have a set of files on disk labelled File.1, File.2, etc. Then type in the program; you can skip the

comments, of course. Save the file as FIND (or whatever). Then type CTRL-P from the Text Entry Screen followed by DO FIND.

And the fun starts.

Program 2, called PRINT, prints all or a range of files on paper. Look at it closely to see how it works. Before you 'DO' it, it's sensible to set up the printing parameters from the Printing Program Menu first — and by all means turn the printer on. Then let her rip.

The system works quite nicely. A little slow in scrolling when you have long records, but . . .

Needless to say, you could do a lot more with this language. WPL can copy your files from drive to drive automatically, create directories of the files with names and numbers, insert the names, addresses, etc. into correspondence, and even sort files alphabetically.

The language is relatively easy to learn — although I bet that those of you fluent in assembly will take to it easier than those who speak only BASIC. And Paul Lutus' bassackward 'reverse Polish notation' — which later bloomed into his new language, called Transforth — will be more familiar to those of you who cut your teeth on, say, Hewlett-Packard rather than TI calculators.

Hope this demonstration will lead some of you to experiment with that hidden resource Steve talked about.

FIND

An Applewriter II WPL Program
by Arsen Darnay

```
P Program that scrolls through a
P set of files named:
P File.1, File.2, File.3, etc.
P
P For best effect, each file
P should start on the second or
P third line so that the prompt
P shows clearly.
P
BEGIN NY
PND
PPR Type CTRL-V CTRL-L CTRL-V.
PPR This will clear screen
```

GOTO 16



Daisy Wheeling Concluded from page 15

```

PPR
PPR          YOUR OPTIONS ARE:
PPR
PPR          (1) Scroll File
PPR          (2) Retrieve a File
PPR          (3) Quit
PPR
PPR          Your Choice: =$A
PIN
PCS/$A/2/
PGO GET
PCS/$A/3/
PGO QUIT
PPR CTRL-V CTRL-L CTRL-V
PSX 1
NY
PYD
PAS FILE.=$A
LOOP PAS(X)=$B
PAS $A$B=$D
L $D,dI
B
PIN*** More? RETURN=Forward,
      ESC=Backward, q=QUIT ***=$
PCS/$C/Type ESCape here/
PGO BACK
PCS/$C/q/
PGO QUIT
PCS/$C/Q/
PGO QUIT
NY
PSX +1
BACK PGO LOOP
NY
PSX -1
GET  PGO LOOP
PPR CTRL-V CTRL-L CTRL-V
PPR
PPR
PIN          ENTER RECORD #: =$A
PASFILE.$A=$B
L $B
QUIT QT

```

PRINT

An Applewriter II WPL Program
by Arsen Darnay

```

P Program 2 - PRINT
P
P Program that prints a set of files
P Named File.1, File.2, File.3, etc.,
P either all or a selection made by the
P user.
P
P For best results, each file should end
P with the form feed command, .ff, not
P followed by a RETURN.
P

```

```

MENU NY
PND
PPR Type CTRL-V CTRL-L CTRL-V, i.e. HOME
PPR
PPR          PRINTING PROGRAM
PPR
PPR          Do you want to print . . .
PPR
PPR          (1) All or
PPR          (2) Some
PPR
PPR          Your Choice: =$A
PIN
PCS/$A/2/
PGO SOME
ALL PSX 1
PND
LOOP1 PSR PRINT
PSX +1
PGO LOOP1
SOME PPR CTRL-V CTRL-L CTRL-V
PPR
PPR
PIN          Starting Record #: =$B
PIN          Ending Record #:  =$D
PSX $B
PSY $D
PSY +1
PAS(Y)=$D
P
P In the above lines, the value of the
P starting record is placed in
P Variable X;
P The value of the ending record is put
P into Variable Y; Y is incremented;
P and the new number is put back into $D.
P Later, $B and $D are compared.
P And when they're equal, the
P program ends.
P
LOOP2 PSR PRINT
PSX +1
PAS(X)=$B
PCS/$D/$B/
PGO QUIT
PGO LOOP2
P
P The subroutine PRINT, below, prints
P both the selection of files or all
P the files. Loops 1 and 2 increment
P the record number and do all
P the tests required for routing.
P
PRINT PAS FILE.=$A
PAS(X)=$B
PAS $A$B=$C
L $C,dI
PNP
NY
PRT
P
QUIT QT
P
P If you're printing all the records,
P the program will end with the
P FILE NOT FOUND error message.
P

```

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The Paragraph-I

A review
by Ron Androff

In fairness to the reader, I wish to state that I have served as a consultant to TECHPORT INC., who manufacture and market the Paragraph-I card. They are now marketing the card in the area and have asked me to write a review for it.

The basic virtues of the card are: it is a locally produced, inexpensive parallel interface card for a printer, which provides graphic dump capability in firmware. It also provides an ability to send virtually all control commands to the printer directly from the keyboard, an exclusive feature, I believe.

Graphic dump:

The graphic dump capability is built into the firmware on the card it is invoked by a <ctrl-t>, and it will perform a graphic dump of anything currently

- on either screen (one or two),
- in regular or inverse mode,
- in normal position or rotated 90 degrees, and
- in single or double size.

The command "<ctrl-t>2RL", for example, will dump screen two, rotated 90 degrees counter clockwise in double size on your printer. Obviously, this is not the only card that will allow screen dumps, but most in this price range require external software to do so, and others that will usually cost more.

Printer set-up:

The <ctrl-i> key is used as a 'flag' to inform the card that the following code is not to be treated as text for printing but is rather a command to be sent to the printer for it to act upon such as <ctrl-i>80n which tells the printer to set its line length to 80 columns. This is the standard procedure. The problem with this approach is that most printers also use a series of commands described as "escape key sequences", so named, oddly enough, because the command starts with an escape key. Issuing one of these commands directly from the keyboard is impossible because of the Apple monitor. When the escape key is pressed the monitor captures it and starts the cursor

movement control routines. It reserves the use of the escape key to provide you with the ability to move the cursor with the 'i', 'j', 'k' and 'm' keys. The upshot of this is that the monitor does not pass the escape code on and the interface card never sees it. The Paragraph-I card gets around this impasse by monitoring for the <ctrl-i> code and will interpret a <ctrl-b> issued immediately after it as an escape key. The card will convert this <ctrl-b> to the escape code and send it to the printer thus allowing any escape key sequence to be issued. This is neat, as the ability to set up your printer without need to write a small program to do it, is handy.

For those who are looking for an inexpensive interface card, with features not found on cheap interface cards, this is one to consider. One thing this card lacks is a buffer, but adding a buffer would also take it out of the inexpensive range; and I also understand the Paragraph-I people are working on a buffered interface card to broaden their line.



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Data Base Apple'cations

Uses for 'File Cabinet' Around the Home
by Stephen K. Johnson

After owning my Apple II computer for almost 5 years and spending my time doing everything but what I bought my computer for, I have finally freed up some time to set up a few small home data bases that will help me get organized. For home use, a public domain simple data base program that's been around since 1978 can be adequate for the job. **FILE CABINET.REV4.1** is just that program and it can be found on Mini'app'les DOM# 2.

I dug out that program and decided to set up a data base to keep track of one of my hobbies; that is, collecting highway maps. I had piles of maps from all 50 states and Canada and really didn't have any idea of which were old or new or what all I had. I set up a data base which would contain the following headings: NAME, YEAR, PUBLISHER, TYPE, LOCATION. I then entered all the data for the pile of maps I had. Then I let the computer do all the work of sorting out the mess. I sorted the data base by NAME and I could see all my duplicates. I then sorted it by YEAR and I could see which maps were old and needed to be replaced. LOCATION told me where I planned to store them so I could find any map I needed at a later date. By letting the computer sort out my mess, I now can keep my maps more up-to-date.

I next decided that since we had collected records and tapes for some 15 plus years, I really didn't know what we had. So, we presorted the records and tapes into piles by type and I set up a data base with the following headers: ARTIST, TITLE, TYPE, MEDIA. I then entered all the data. I let the computer sort the database by ARTIST and I found out how many, what titles, and which media that artist's albums could be found on. Now when I see a sale on an album by one of my favorite artists I know if I already have that title. I also found out what I haven't listened to in 15 years.

Most recently I found out that I really didn't know where or how much blank space I had on my video tapes. So I felt that here was another use for a data base. I set up a data base with the following headers: REC#, ID#, TITLE, START, STOP, TIME. I then entered all the data that I knew. I entered START and STOP as counter readings, but, I really didn't have a good way of calculating TIME as the counter runs at a nonlinear rate and the manual only gave counter readings for 1,2,3,4,5, and 6 hours. I found a program that would interpolate the missing values in a book

entitled **SCIENCE AND ENGINEERING PROGRAMS-APPLE II**. This program was called **Cubic Spline Interpolation**. I entered the counter readings for 1 minute plus the 6 others that were listed in the manual for the video recorder. I specified an increment of 1 and the program printed out a table listing the counter numbers for 1 minute increments for 1 to 359 minutes. Using the information from this table I could subtract the corresponding time for the START count from the time for the STOP count and I could get the number of minutes for each recording. I then entered this data in the data base and now the computer could sort for blank tape and TIME remaining. This exercise saves me from buying extra tape when I really have enough to record what I want.

As you see a simple data base program put to use around the home can help to organize a few messes and possibly save you a few dollars. 

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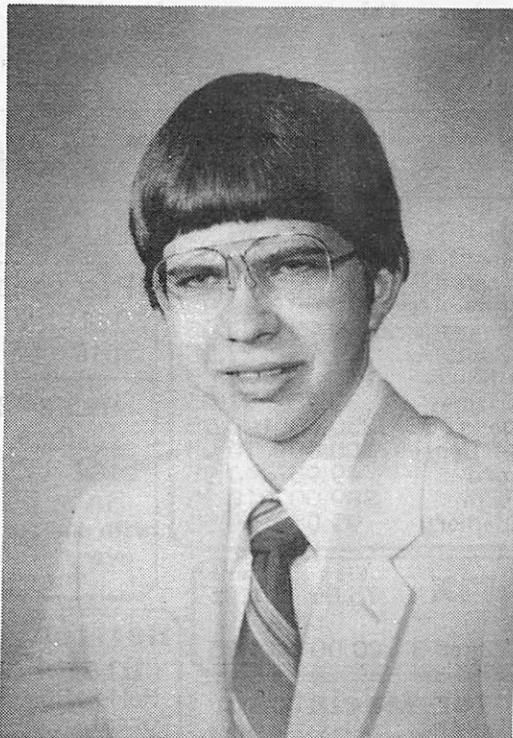
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Member Profile:

"Stephen Cabrinety"
by Patricia Cabrinety

A Mini'app'les member was the youngest businessman and exhibitor at the Marketplace MINNESOTA Fair held at the Civic Center in St. Paul in February. Stephen Cabrinety, a member of Mini'app'les since 1981, is presently a graduating senior at Edina High School. He learned to program at the Nashua Vo-Tech Institute in New Hampshire in 1980 through a school released time program. After a few short months he nearly gave up, as there wasn't a computer club in the area to help him with questions and thoughts of what he wanted to program became lost in the necessity of "hunting and pecking" the keyboard. Through a high school summer session, however, Steve learned to type.



Stephen Cabrinety

A move to Minnesota was the greatest influencing factor in Stephen's success. Minnesota had a computer club: Mini'app'les! A few of the members graciously helped Stephen overcome programming difficulties and machine-type problems. In a way, this is Steve's way of saying a public "Thank You."

Stephen became involved with Zooschool at the Minnesota Zoo, and with the encouragement of Steven Hage decided to select for his "project" the classification of animals on computer. The rest is history. Steve's project was called OSIRIS (acronym for Organized Species Inventory, Retrieval, and Identification System). Stephen spent two years and approximately 300 hours perfecting a three-part program: OSIRIS, which would create individual specie files; OSIRIS II(A), which creates whole species name files, and OSIRIS II(B), which compiles and consolidates data.

The results of this program have won Steve numerous awards and recognition at the regional and state Science Fairs, as well as an award from each branch of military service. In April, 1983, Stephen was the top overall winner in the State Science Fair and was the Minnesota State delegate in May to the 34th International Science and Engineering Fair in Albuquerque, New Mexico, where the program had a week-long exhibit. A paper abstract of the program was recently printed in the proceedings of the 36th Conference on Engineering in Medicine and Biology, published in September. In the interest of science, this program has been donated to ISIS for initial use at the Minnesota Zoo.

Currently, Stephen has a software company named Superior Software, Inc. His three initial educational adventure programs to the Christmas marketplace were CLASSIC NOVELS SERIES: Quest for the Scarlet Letter (based on Nathaniel Hawthorne's story) and Legendary Conflict (based on the epic poem, Beowulf) and HISTORIC EVENTS SERIES: Breckenridge Caper of 1798 (Napoleonic time period). The Apple compatible programs are unique in four ways: they were the first at the marketplace to use classic novels and historic events as themes, first to have bright yellow packaging, were among the first to have education and adventure combined, and were among the first to have plastic container packaging.

Stephen's other hobbies include skiing, biking, archery, photography, published poetry and art illustrations. He keeps busy, too, with a full load of freshman courses at the University of Minnesota Institute of Technology in the field of engineering. Future plans call for full time college. Stephen hopes to sell enough software programs through Superior Software, Inc., to take care of this major financial project.





Instant Slides

POLAROID 35mm AUTOPROCESS SYSTEM
Rapid Process Slides from your Camera
by Dick Marchiafava

The Polaroid Corporation has recently announced availability of a rapid process slide system and film for use with 35mm cameras. They have re-packaged their Polavision instant movie technology for use as a 33mm slide system. (Do you remember home movies? Polaroid introduced Polavision for movies just in time to be overwhelmed by the flood of low cost video cameras and players).

The system is composed of Polachrome color film, two black and white films, Polapan and Polagraph, the Autoprocess System box, a slide mounter, and the slide mounts.

The process is about 5 minutes from camera to slides. The process is easy and well explained. Load the film in the Autoprocess box, crank it through, and mount the slides.

The cost of the film processing box is listed as \$87.00, the slide mounter is \$17.00. 100 slide mounts are \$5.00. The costs of film are

equivalent to the cost of film plus processing charges for regular slides.

The quality of the slide image is said to be slightly grainy in comparison to regular slides, and the image is not as bright. Colors are described as generally good.

The merit of the Polaroid Autoprocess system is that it gives the ability to produce finished slides on site in a short time. If your concern is to be able produce slides of computer generated graphics in a hurry, the shortcomings of the film may seem slight.

Generally, the costs of these items may be 20 to 30% below the suggested list price. For more information see a camera dealer, or call 1-800-526-7843 ext. 400 for the name of the dealer nearest you.

I have not used this system of making slides, but it sounds useful if you are in need of the ability to produce slides quickly.



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Increasing Disk Storage (Part 6)

Save a Sector on Hires Pictures
by Steve George

Have you ever wondered why some hires pictures occupy 34 sectors of disk space (usually your own) while others only require 33 (usually a commercial program)? Well, I did too, so I started by looking at one of the best-worn references in my collection: Apple][Reference Manual. This little book really does contain a wealth of information! Having read it literally from cover-to-cover the first time through (admittedly with only small amounts sinking in), it is now proudly bearing the signs of constant usage.

Page 21 illustrates the memory layout of hires page 1: \$2000-\$3FFF (8192 to 16383 dec). Right? You save your artwork as:
BSAVE ARTWORK,A\$2000,L\$2000

or
BSAVE ARTWORK,A8192,L8192
each time. And each time you have 24 disk sectors gobbled up! If you really study the addresses on page 21, you'll notice that there are \$40 (64 dec) bytes which aren't accounted for at the right-hand edge, lower 1/3 of the hires display. When BSAVE is invoked, you're capturing the memory from specific locations onto the disk, later to be retrieved (BLOADed) back into those same locations. So there's little that can be done with most of these \$40 bytes. However, the last eight ARE worth noting because they're at the end and not part of your actual picture.

Locations \$3FF8-3FFF are at the end of this 'stream' of hires picture bytes and may be left out when saving a hires page 1 picture. Now 8 bytes doesn't sound like much, I agree. However, binary files are stored with a 4 byte overhead: 2 bytes for the BLOAD Address and 2 for the Length. Also, due to a minor bug in DOS (documented in Beneath Apple DOS — where else), an additional byte is also saved to the end of the range specified. So we effectively have a 5 byte overhead.

Recalling the Length 'formula' from a few months ago: $\$3FFF - \$2000 + 1 = \$2000$, right? Adding in DOS's overhead we get \$2005. So, reducing the pic length by at least 5 but not more than 8, we reduce the sector count to 33 and retain all of the hires bits by using a Length of between \$1FF8 and \$1FFB (8184 and 8187 dec).



Abstracts

Magazines / Journals, May issues:
by Jane Chatterjee



oftalk:
Special issue on Apple use worldwide.
//c review article. Schoolhouse Apple feature.

Creative Computing: Reviews of Language Arts software, inexpensive word processors and the Einstein memory trainer.

Personal Computing: Choosing a word processor. Stockmarket educational software.

Computing Teacher: Special issue on educational uses of word processing. The ICCE has formed some new SIGS, for Computer Coordinators, Teachers of Educators and Educational Administrators; a regular bulletin is now available.

Apple Educational News: Report on the Teachers Can't Wait educational grants project. This newsletter is free from Apple - 10260 Bandley Dr, Cupertino, CA 95014.

Call Apple: Educational use of robots-turtle, TOPO etc.



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COMPUTER REPAIR SERVICE

Planning Pro-Files

A Review

by Susan K. Vaughn

The PLANNING PRO-FILES financial planning system will be featured at the June Mini'app'les meeting. While at the session, you will learn about the program's capabilities, how it can enhance your personal financial plans, and how easily it can "toy" with alternatives in your projected lifestyle scenarios.

The program, compatible for use with both IBM and Apple computers, is used with the VisiCalc system. PLANNING PRO-FILES features the ability to incorporate income, expenses, and projected tax liabilities into one simple-to-operate program. It is capable of calculating your net worth and available cash, preparing your lifestyle into monthly and yearly budgets, solving for federal tax liability, and comparing mortgage refinancing options.

If you wish to consider "what if?" I/we refinance an existing mortgage, or "what if?" I/we wish to convert cash to investments, the

problem can be solved quickly. With the modification of one or more aspects of your finances, printouts will reflect changes in each of six reports.

Other programs in the field include Money Tree, the Leonard System, and IPC. PLANNING PRO-FILES is available at a fraction of the cost of these systems. The standard edition sells for \$49.95 including master diskette, storage diskette, and soft cover manual. The deluxe edition features a hard cover manual for \$59.95.

The significant difference between PLANNING PRO-FILES and other financial programs includes yearly tax tables for those who purchase the program, and client services for those who wish to benefit from the reports without purchasing the program. The six reports are available for those who complete the worksheet at a price of \$25.00 per completed reports. For further information contact Roger Meyer or Richard Kamla, Mini'app'les members.



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Mini'Scrip Errata

Errata for
MINI'SCRIP CHECKBOOK FINANCIAL SYSTEM
by Leighton Siegel

A healthy number of Mini'app'les Software programs, including MINI'SCRIP, have been distributed. Feedback from users has been minimal and we would like to see more. Any comments, a testimonial, or even a review would be most welcome. How about it? We know you're out there. You might even get to see your contribution in print.

REPEAT OF AN OLD ERRATA

The labels on all the disks are incorrect. The program name is:

MINI'SCRIP CHECKBOOK FINANCIAL SYSTEM
version 2.4 (or 2.6)

COPYRIGHT 1983 by Leighton Siegel

Notice that there is no T in "MINI'SCRIP". Use a soft felt tip pen to make the correction.

(ERRATA #8 for version 2.4)
or (ERRATA #1 for version 2.6)

A MINI'SCRIP user called me a few days ago to point out his newly discovered problem. The program crashed when he attempted to print a report with a subtotal or total of over 1 million dollars. We should all have this problem. MINI'SCRIP was, however, designed to handle up to 10 million dollars correctly. The bug occurs only in some printed reports. If you are not going to be dealing with over 1 million dollars, fixing the bug is not worth the effort and I suggest not bothering.

The patch should be made on a COPY of your ORIGINAL DISK and a COPY of your MASTER ACCOUNT DISK. Save the originals as backups.

From BASIC type:

```
UNLOCK JOURNALIZE AND REPORT <return>
LOAD JOURNALIZE AND REPORT <return>
POKE 33,33 <return>
```

(* Change, as described below, the following line numbers: 1390, 1460, 1490, 1500, 1510, and 1640)

```
TEXT <return>
SAVE JOURNALIZE AND REPORT <return>
LOCK JOURNALIZE AND REPORT <return>
UNLOCK LEDGER PRINTER <return>
LOAD LEDGER PRINTER <return>
POKE 33,33 <return>
```

(* Change, as described below, the following line number: 470)

```
TEXT <return>
SAVE LEDGER PRINTER <return>
LOCK LEDGER PRINTER <return>
```

* How to change the line(s).

LIST 1390 <return> (Replace 1390 with the line number you wish to change.)

You will now see something like the following on the screen:

```
1390 PRINT : PRINT SPC( 8)"";:FOR
      L = 1 TO 62: PRINT "-";: NEXT
      : PRINT : PRINT SPC( 8)CL$(
        TYPE) + " TOTAL $
      ";: PRINT SPC( 9 - LEN( DC
        $))DC$
```

Notice the number 9 near the end. This must be changed to a 10. The easiest way to do this is to continue with:

ESC (do not press <return>)

Now press the keys I,J,K or M as needed to move the cursor so that it is superimposed on the first character of the line number. In this case it is the 1 in 1390.

Trace over the line with the right arrow key until you get to the number 9. Type 10 to replace the 9. Then continue to arrow until you have finished tracing the remainder of the line and press <return>.

You have now changed one line. Repeat this process for each necessary line number.

THAT'S ALL FOR NOW.

Minutes

Board Meeting, April 30, 1984

by Ken Slingsby

An 'annual' special board meeting was held at Denny's Resturant in Bloomington. The first order of business was the installation of new officers. Past presidents were presented a gavel engraved with their term of office:

- Dan Buchler 78-81
- Steve Johnson 81-82
- Ron Androff 82-83
- Chase Allen 83-84

Dave Laden was presented a gavel for use at future meetings.

In other business, Mr Leighton Siegel sent a letter asking that the name of his program on MSD #1 be spelled correctly and that a copyright notice be placed on it. All future Mini'Scrip disks will be so labeled.

A motion was passed appointing Chase Allen as acting treasurer during the time Mr. Hansen is out of town on an extended vacation. Have a good trip, John.

The mood of the meeting was light and the food was good. All present agreed that this should be an annual event.



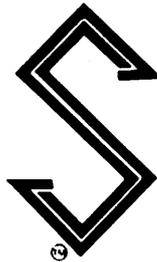
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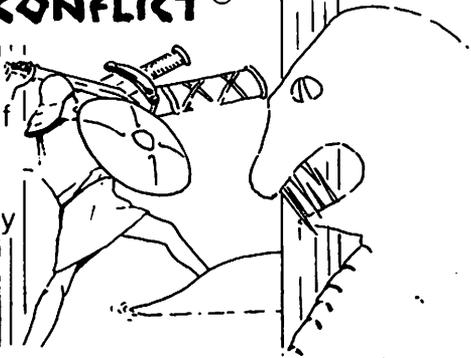


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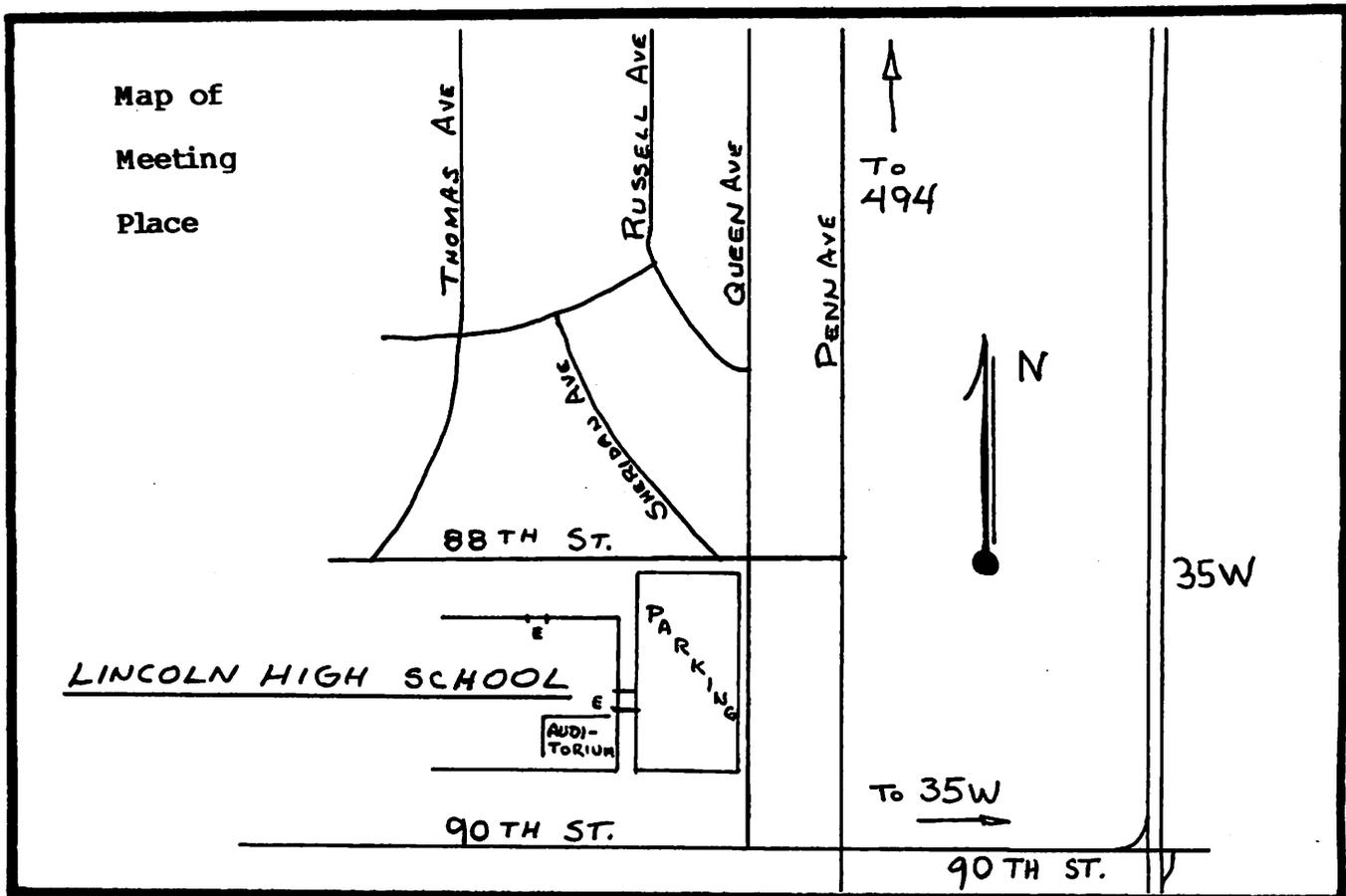
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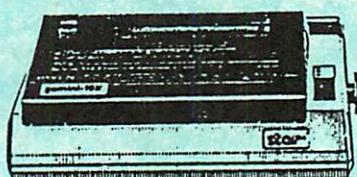


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