



mini'app'les

apple computer user group newsletter

VOLUME VII No 5

MAY 1984

CALENDAR

CALENDAR

CALENDAR

WHICH	WHEN	WHERE	WHAT
Pascal & Apple /// Note 1	Wed May 2 7:30pm	Minnesota Federal 9th Ave S Hopkins	Pascal & Apple /// Special Interest Group Meeting.
Dakota County Branch Note 7	Tue May 8 7pm-10pm	St. John Neumann Church 4030 Pilot Knob Rd, Eagan	
Board Meeting Note 2	Wed May 9 7:30 pm	Norwest Bank S 1st St., Hopkins	New Board Night. All members are welcome!
Educational SIG	Wed May 9	St Paul Vo-Tech	Note 12: Educ. Lab by Daryl Dewar
Medical SIG Note 13	Wed May 9 7:00pm	Health Associates Ctr. 2221 University SE, Rm 115	
Business Note 10	Thu May 10 7:00pm	Edina Community Center 5701 Normandale Road Room 103	Demo: BPI General Ledger by Henry Lewis Discussion of Spreadsheets
St Cloud Branch Note 15	Thur May 10 7:30pm	Waite Park City Hall 5th Ave & 3rd St N.	Demo: GPLE, DOS BOSS, Micro Wkbk, Apple Graphics. No meeting JUN, JUL or AUGUST
User Info Faire Note 14	Sat May 12 9:30am-8:00pm	The Science Museum of MN 30 E 10th, St Paul	Adm.\$2 Members of Club/Museum \$3 All others
REGULAR MINI'APP'LES Note 2	WEDNESDAY May 16th Prgm-7:30pm	UNIVERSITY MINNESOTA ST. PAUL Room B45 Bldg 412	If the hardware arrives; Apple IIC Demo by Mike Carlson (PBS) Otherwise just a great presentation!
Educational SIG	Wed May 16	After Regular Mtg.	Note 12 Demo: "Read & Underline...."
Investment SIG Note 4	Thur May 17 7-9:30pm	Henn Cty Lib at Southdale 7001 York Ave S.	
New Hope Branch Note 16	Tue May 22 7:00pm	Rockford Rd Library County Road 9	
CP/M SIG Note 5	Wed May 23 7:00pm	Minn Fed Hopkins Hopkins MN	
Minnetonka Branch Note 8	Wed May 23 7:30pm	Glen Lake Community Ctr 14300 Excelsior Blvd room E	
Amateur Fair	Sat Jun 2	State Fairgrounds	MN's largest swap show. See ad inside!
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.
Dakota County Branch	Tue Jun 12 7pm-10pm	St. John Neumann Church 4030 Pilot Knob Rd, Eagan	Note 7
Business Note 10	Thu Jun 14 7:00pm	Edina Community Center 5701 Normandale Road Room 103	Program to be determined
REGULAR MINI'APP'LES Note 2 Map next month	WEDNESDAY June 20th Prgm-7:30pm SIGS-8:30pm+	Lincoln Center (old Lincoln High) 88th & Sheridan Ave. Bloomington	
Educational SIG	Wed Jun 20	After Regular Mtg.	Note 12
New Hope Branch	Tue Jun 27	Rockford Rd Library	Note 16
CP/M SIG	Wed Jun 27	Minn Fed Bank	Note 5
Minnetonka Branch	Wed Jun 27	Glen Lake Community Ctr	Note 8

Notes:

(See page 2 for telephone numbers)

- John Schoeppner
- Scott Ueland
- Fred Woodward
- Eric Holterman

- W. Scott Ueland
- Dan Buchler
- Bob Pfaff

- Martin Thames
- Mike Carlson
- Subir Chatterjee

- Bill DeCoursey
- Jane Chatterjee
- Stewart Haight

- Steve George
- Frank M. Ringsmuth
- Jere Kauffman



Mini'app'les

The Minnesota Apple Computer Users' Group, Inc.

P.O. Box 796
Hopkins, MN 55343

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Spcl Int. - FORTH	Mark Abbott	854-8304
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Spcl Int. - Handicaps	Steve Lyle	894-2991
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Spcl Int. - Pascal	John Schoeppner	455-8613
Spcl Int. - Visicalc	Mike Carlson	929-4120
Spcl Int. - CP/M	Scott Ueland	623-3749
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Minnetonka	Martin Thames	934-3517
New Hope	Jere Kauffman	535-6745
St. Cloud	Frank Ringsmuth	253-6032
St. Paul/Mahtomedi	{ Fred Woodward	426-4060
	{ Jim Schenz	429-4931

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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:
PO Box 21-425
Eagan, MN, 55121 612-454-5628



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- **POWER SWITCH:** Replaced with Pro Mini-Toggle, only \$15.00
- **PARTS:** Every IC Instock; Dealer and Club Inquiries Invited
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2439 Franklin Ave., St. Paul, Minnesota 55114

ANNOUNCEMENTS

BUSINESS SIG MEETING NEWS
by Dick Marchiafava

**MAY MEETING: BOOKKEEPING WITH
BPI GENERAL LEDGER AND SPREADSHEETS**

Business SIG has moved! The Business SIG meetings will be moved from downtown to Edina for May 10th and will be held at the Edina Community Center, 5701 Normandale Road (the cross street is Southview Lane). Directions: Hiway 100, exit at 50th Street. Turn east, then turn south on the frontage road which is east of Perkins.

The meetings are in Room 103, which is on the first floor, west. Meetings start at 7:00 PM with RANDOM ACCESS, the question and answer session where members seek solutions and share experience. The program starts at 7:30 PM.

The May program is about Bookkeeping and Accounting. A demo of the BPI GENERAL LEDGER, the most popular accounting package for the Apple computer will be presented by Henry Lewis, of Henry T. Lewis & Associates, an accounting professional. The second part of the program will be about accounting applications on spreadsheets. If you are having difficulty with a spreadsheet application, bring it along. There will be help available at the meeting.

Everyone is welcome, and bring your questions!

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 11th, 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 5PM 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!

Election Results

The following were elected Directors per the new bylaws.

President	Dave Laden
Vice-President	Scott Ueland
Treasurer	John Hansen
Secretary	Ken Slingsby
Communication	Dan Buchler
Software	Pete Gilles
Technical	Hugh Kurtzman
SIG Director 1	John Schoeppner
SIG Director 2	Subir Chatterjee
Branch	Ron Androff

Calendar Announcements

Please submit all calendar dates, changes, etc., to Ron Androff. Ron has volunteered to be the calendar maker for the newsletter. As for all newsletter items, timely submission helps us all!

GOTO 5

SOFTWARE FOR

rolltop 100 sale
disk file 36.00 28.95

	Retail	Ours
PFS: File *	125.00	99.95
PFS: Report *	125.00	99.95
Flight Simulator II	49.95	39.95
Beagle Basic	34.95	27.95
Silicon Salad	24.95	19.95
Oass Boss	24.00	19.95
GPLE	49.95	39.95
Pronto DOS	29.50	23.95

* Specify II or //e

A Great Way to store your diskettes!

ROLLTOP 100 Disk File like a roll-top desk. Holds 100 disks. 11 dividers. All for only 28.95! **sale**

YOU

you're in good company here

new! for Macintosh

Multiplan	195.00	159.95
Microsoft BASIC	150.00	122.95
other software coming soon		

Retail Ours

Dollars & Sense	100.00	79.95
Pie Writer	149.95	122.95
Fontrix	75.00	61.95
Fontpak Vol 1, 2, or 3	20.00	16.95

MN Residents add sales tax. Include \$3 per order for shipping. Whatever your software needs, you can get it here! Write us.

MICRO MAIL

Dept. MB, P. O. Box 1451, Burnsville, MN 55337

Announcements Continued from page 4

Educational SIG
by Jane Chatterjee

May Meetings:

Extra Meeting: Wednesday, May 9th, 7.30pm.
Room 408, St Paul Vo-Tech, 235
Marshall Ave, St Paul.

Hands-on educational software lab. Arranged by
Daryl Dewar, math instructor at the college.

Regular Meeting: Wednesday May 16th, after
the regular Mini'app'les meeting, at the same
location. Demonstration of the program 'Read
and Underline to Comprehend', a reading
program written and demonstrated by Dave Wark,
U of M psychology professor. This program is
in the final stages of development and will be
available later in the year. Dave also has
news of an educational computing conference he
attended recently at New York University.

Minnesota State Software Evaluation Project:

The director of this project is interested in
contacting classroom teachers who would like
to participate, with their students, in
evaluating software submitted to the project.
The evaluation will take a few hours and there
is a small fee involved. Also, your school
can be put on the project's mailing list
through which you will receive copies of the
evaluations, every few months. I have the
application forms available, or you can obtain
them directly from: Harold MacDermot, Project
Director, Minnesota State Dept; phone
297-2534. They are also interested in
machines other than the Apple- there, I said
it! (Jane, do you mean the Mac? - Ed.)

Magazines / Journals, April issues:

- Twin Cities Computer User: Regular and
timely listing of local computer classes;
levels from literacy to programming.
- Creative Computing: This is the biannual
issue focussing on education. It contains a
number of articles on educational software
and is definitely worth looking at.
- Softalk: Schoolhouse Apple feature article
on educational computing projects for the
handicapped.
- Computing Teacher: Theme Issue on Computer
Equity, including use of micros by girls,
minorities, disadvantaged etc.
- Classroom Computer Learning: As usual, full
of educational computing articles for all
levels. If you are looking to subscribe to
an educational computing magazine, this is a
good one to start with. (Address- 5615 W.
Cernak Rd, Cicero, IL 60650)
- Computing Teacher, March issue: Update and
software listing of project Softswap -
largest collection of public domain
educational software.

Networker Bulk Purchase
by Steve George

As stated in the front cover, we do not
endorse any retail computer-related stores.
But we do have an obligation to members to
pass on information which you will find
beneficial.

I recently had the opportunity to evaluate the
Networker Modem and software. (See review
elsewhere in this newsletter.) This is a great
package and the retail prices are very
reasonable. However, a "bulk purchase" has
been offered to Mini'app'les members by a
local retailer: Diskcover Software.

Diskcover Software normally offers
Mini'app'les members a 10% discount on
everything they have. But, a special price
has been worked out so that you can save even
more: Networker Modem with Networker software
(reg \$129) now \$100 and NetMaster Combo
(Networker Modem and NetMaster Software, reg
\$179) now \$135!!

As bulk purchases go, they need a minimum of
12 orders to do this. When 12 orders have
been received they will be filled and the next
12 requests collected. So, give them a call,
as they are handling all the details.

GOTO 6

Professional Service

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OFFICE EQUIPMENT, INC.

801 WEST 77¹/₂ STREET
RICHFIELD, MINNESOTA 55423 866-3441

Announcements Continued from page 5

New Hope Branch
by Jere Kauffman

The New Hope Branch will meet on May 22nd at 7:00 p.m. in the Rockford Road Library, County Road 9 in Crystal. Dick Hreha will demonstrate his robot "Hero". All interested Apple users are welcome to attend and take part in our discussions.

MECC Disks
by Dave Nordvall

We are sorry to announce that the club will no longer offer MECC disks to members. MECC will not provide them to us for sale at the special club prices. You may of course order MECC disks directly from MECC at their advertised catalog prices.

April Classified Mix-up

The newsletter staff apologies to those who had classified ads to be run in the April issue. Somehow we managed to rerun the March classified. This issue includes those classified ads submitted April.

Computer Fair

The Science Museum of Minnesota in conjunction with the Twin City Computer User is sponsoring a computer fair at the museum on Saturday, May 12. You will be able to see a bulletin board functioning, a variety of PCs and other related items. Mini'app'les will be there too!

Stolen Equipment

The equipment listed below was stolen from Augsburg College. Each piece has ID NMO27111147 engraved on bottom.

Apple //e SN 1A2S2-360356 with 80 col. card and Super Serial card. Has circular hole in back for cable.

Apple Disk Drives SNs 1202161 & 1204387.

Apple][Monitor SN 739725821

Please call Larry Copes at 330-1064 or 451-3720 if you have any information which might lead to the recovery of the equipment or identification of the thief.

GOTO 7

Supplies For Your Computer

The Computer Supply Store in St. Paul, Minnesota stocks the supplies you need. Specializing in P.C. supplies, The Computer Supply Store is dedicated to serving your needs with the right product, quick service and very competitive prices.

Call 612-646-9412 for our catalog.

The Computer Supply Store
1603 University Avenue
St. Paul, Minnesota 55104

Dick West



Announcements Concluded from page 6

Investment SIG
by Eric Holterman

The next meeting of the Investment SIG will be on Thursday, May 17 at the Hennepin County Library near Southdale. We plan to spend part of the meeting looking at a demo disk of Omega Microware's Chart Trader Plus. The remainder of the meeting will include a demo of another program program not yet selected.

As we did last year, we will suspend our meetings during the summer, so May will be our last meeting until September.

We will be in the Ethel Berry Room. Doors open at 7 PM and the meeting starts at 7:15 PM, adjourning by 9:15 PM. The library is located at 7001 York Avenue South. It is on the east side of the street, across from Target. Plenty of free parking.

**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.

DOMs by Mail

Continuing Service for Mini'app'les Members

by Chuck Thiesfeld

Now members can order DOMs (not Mini'app'les Software) using their own diskettes. Here is the procedure:

Make up a package containing the following:

1. Blank diskette (or diskettes if more than one is desired).
2. Mailer. Diskettes will be returned in same protective device used to send the diskettes, provided such will fit in the mailer.
3. Send correct postage in stamps - do not send money in lieu of stamps.
4. Self-addressed return label.
5. \$1.00 copying fee per DOM or disk.
6. A note indicating which DOMs are desired.

Send to:

C. Thiesfeld
8416 Xerxes Avenue S.
Bloomington, MN 55431

Please allow 60 days for delivery in USA. Incomplete packages will not be returned. DOMs 1 thru 26, except 18, EAMON #3, and 8 Pascal disks are currently available. Mini'app'les Software disks (MSD) are not available! General questions about DOMs should be addressed to Terry Schoeppner. Questions on DOM content should be addressed to Al Peterman, our DOM editor.

Please note that DOMs may also be purchased on club-supplied media by sending \$7.50 to the software sales coordinator. See inside front cover. The first 3 Mini'app'les Software Disks (MSD): #1 - Mini'scrip, #2 - Micro Mailer, and #3 - Higher Print/Higher Word Processor/Message Maker are available by mail from Terry for \$17.50. Or, the latest DOMs are available at regular meetings, and at some Branch meetings, for sale to members at \$5 each, and the MSDs for \$15 each.



INFLATED
PRICES

WHOOOSH

WHY PAY MORE
FOR COMPUTER
PRODUCTS

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8120 PENN AVE SO. #114
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DOES TRYING TO FIND THE BEST PRICES ON COMPUTER PRODUCTS SEEM LIKE TRYING TO NAIL JELLO TO A TREE??

We handle over 15 different computers, over 20 makes of printers, disk drives, modems, more than 200 software vendors with 3000+ titles, 10 makes of monitors, 12 top selling diskettes and lots more. If you need it, we can get it for you.

Try Us and Save Your Money

We sell at absolutely, positively the lowest prices in town, bar none. Call for a quote, or come in and see us.

Here Are Some Examples	Retail	CBS List
Gemini 10X Printer	\$399	\$275
Okidata ML92P Printer	\$599	\$449
Epson RX-80 Printer	\$499	\$289
Panasonic KXP1090 Printer	\$499	\$289
Amdek 300 Monitor	\$179	\$135
Columbia Desktop Computer	\$3170	\$2460
Mitsuba Super 5 Drive	\$299	\$209
Sentinel 5¼" Disks (10)	\$45.00	\$21.00
PFS Series Software	\$125	\$85
Hayes Smartmodem 1200	\$699	\$489

DOM#30

May, 1984

 by Steve George

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

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

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

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

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

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

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

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

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

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

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

Ever had to really jam on the brakes? (Ok ok, I hear you, you put jam on bread. Hrumph!) But seriously, STOP III lets you input a rate-of-travel with paddles/joystick and then measures your reaction time to a semaphore which changes from green to red. It then tells you how long that took, how far you would have traveled at your designated speed, and how much farther before you actually stop (and on 3 different road-surface conditions)!!

Eat EAT EEAATT!!! Tired of all those diet programs? Want to indulge? Well here's a data base program dedicated to food! RECIPE FILE X allows you to selectively retrieve recipes, add new ones and generally pig out! Screen displays are very nicely done and the Help file sure comes in handy. Output to screen or printer.

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



APPLE MODEM. WITH EVERYTHING.

Now including
a valuable subscription to
THE SOURCE
AMERICA'S INFORMATION UTILITY

\$129

Your best buy in modem history. The **Networker™**, a plug-in single-slot direct connect modem for the Apple II family of computers. Send electronic mail to a friend or business associate, use your school's computer, access hundreds of computer bulletin boards or thousands of data bases for up-to-the-minute news, sports, weather, airline, and stock information.

There's absolutely nothing else to buy. You get the modem board, communication software, and a valuable subscription to America's premier information service, **THE SOURCE™**. For \$129 it's an unbeatable value.

This is the modem that does it all, and does it for less. The Apple Communications Card is on board, so no other interface is needed. It's 300 baud, the most commonly used modem speed. And it comes complete with **Networker** Communications Software on an Apple-compatible disk, giving you features no modem offers.

Like the ability to lock on-screen messages into your Apple's RAM, and then move the information onto a disk for easy reference and review. A terminal program that turns your computer into a communications command center, with on-screen "help" menus, continuous updates of memory usage, carrier presence, and communication status.

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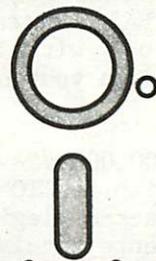
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ULTRAPLAN

A Review

by Scott L. Ksander

A few months ago I reviewed the latest video board from VIDEX, the ULTRATERM. This board provides up to 160 column video on an APPLE][+ or //e in addition to the normal 80 column mode. After several months of using the ULTRATERM, I am still very pleased with its performance. A key challenge of the ULTRATERM has been to explore uses of the "greater than 80 column" capabilities and spreadsheets seemed a natural place to start.

Initially, VIDEX provided a "pre-boot" for VISICALC which configured it to use the ULTRATERM. This seemed to work well, but I never really liked the pre-boot concept (too much disk swapping and inconvenience) and many previous articles have documented the shortcomings of VISICALC compared with other spreadsheets on the market. The problem was that no other package supported the expanded capabilities of the ULTRATERM until VIDEX introduced ULTRAPLAN.

Although ULTRAPLAN is packaged under the VIDEX label, the documentation indicates it was produced for VIDEX by ARTSCI, Inc. (distributors of the "MAGIC" series of software) and written by William G. Graves. The author, and in fact almost the entire manual, is the same as THE SPREADSHEET Version 2 except for the unique ULTRATERM enhancements. For this reason, I won't spend a lot of time describing the spreadsheet aspects of the package since they have been presented before. I think it is worth reviewing, however, that ULTRAPLAN is menu driven, provides variable column widths, protected and "locked in" data, automatic support of APPLE IIe, Titan, and Legend extended memory cards, and most importantly, reads existing VISICALC data files in addition to DIF format files. This means no conversion if you are currently a VISICALC user. ULTRAPLAN also provides full upper and lower case support via the APPLE IIe keyboard, VIDEX ENHANCER, the ever famous one-wire shift key mod, or even using CNTL-L to toggle the case on an upper case only keyboard.

Before I go on any further, I should answer the question "What if I don't have an ULTRATERM?" Well, ULTRAPLAN can still be very useful to you. It will support most other 80 column cards, normal 40 column mode, and a special 70 column mode using the hi-res graphics display. Even in these modes, I believe it is a superior product to VISICALC. As I said before, however, there are other

packages available by the same author and you should compare prices if you don't need the ULTRATERM hardware support. ULTRAPLAN lists for \$189 but I have seen it available mail order for \$130-\$140, so shop around.

The ability to produce 128 column spreadsheets on the screen and then print them either on a full 132 column printer or in "condensed" mode on my EPSON is extremely valuable. ULTRATERM makes composing them easy and the page formatting capabilities of ULTRAPLAN makes printing them easy. Unfortunately, ULTRAPLAN does not support the 132 and 160 column modes of the ULTRATERM.

I don't quite understand this, but I suspect it has something to do with the fact that these modes cannot be displayed on all monitors due to the full screen scan requirements. Even so, it would seem that the package built explicitly for the ULTRATERM should support all its modes.

This is probably a good place to repeat the caution that the ULTRATERM requires a monitor with high persistent phosphor, such as the APPLE III monitor or the AMDEK 300A. The APPLE II monitor is not recommended. When in doubt, test before you buy!

A very strong plus for ULTRAPLAN in my case is that it uses standard DOS. This means that it can take advantage of any DOS "enhancements" such as file dating and hard disk support. Unfortunately (very unfortunately) the ULTRAPLAN program itself is copy protected. Data files can reside on any device supported by your DOS. As a hard disk user, I really dislike not being able to put both the program and my data files on the hard disk. A backup copy of ULTRAPLAN is also not provided in the package. A backup may be ordered for \$20 (shipping included) from VIDEX.

In summary, ULTRAPLAN is a very good product for ULTRATERM owners who use spreadsheets. ULTRAPLAN is compatible with VISICALC data files while providing advanced commands not found in VISICALC. Even if you don't own an ULTRATERM, the ULTRAPLAN/SPREADSHEET product is a big improvement over VISICALC. I certainly feel I have found the solution to my spreadsheet needs. The next challenge is to find a word processor that will support the extended features of the ULTRATERM. But more on that some other time.





Cermetek Info-Mate 212A

A review
by Tom Vanderpool

via IAC Bulletin board for newsletter exchange
from an unknown Apple user group.

It was quite a step for me to get my modem. Several years ago I decided that I wanted to be able to talk on the telephone with my computer and hoped that I could find someone that wanted to talk back to me. Maybe I could find someone once in a while and then see what all this telecommunications talk was all about.....

Now I know how wrong you can really be! At this point there are between 15 and 20 LOCAL bulletin boards that allow you to 'talk' with a computer over the phone. With this knowledge we can find new friends, who has the latest software, how can I whip this programming problem that I am having? All this can be done with a modem and one of the local bulletin boards. Then you can get into one of the time sharing systems and really 'get some things done!'

Now that I have gotten comfortable with my original modem, I have been looking around to go faster and faster. Isn't this always the case? Well, my most recent acquisition is a new 1200 baud modem. It is the Info-Mate 212A from Cermetek. I have heard about 'smart modems' for a long time, but this is the first time that I have really run into one!

First the basics:

The modem will support the general 'run of the mill' stuff like auto dialing, auto answer, 100-300 baud and 1200 baud. This is a direct connect type of modem and requires an RS-232C type of interface for your computer.

Now for the frills!

This modem is smart enough to tell whether you are connected to the phone line or not! Even though this sounds like a small item, there are times that you think that you have a phone line and do not. The example being at the club meeting last month before the demonstration we were trying to test the modem. It kept telling me that there was no dial tone. Sure enough, we had a bad connection in the phone line extension cords coming in to the modem. I have also forgotten to connect the line and then it is QUITE embarrassing to see the error show up on the screen when you just KNEW that all was well!

ASCII strings from the computer or terminal to control the different functions of this modem. The control (or wake up) code can be changed to suit what your needs may be. On power up the modem recognizes control-N as being the controlling sequence but if you are comfortable with the MicroModem II and like the control-A sequence you can change to that with a simple command such as CONTROL-N N CONTROL-A. This will set control-A as the new 'wake up' code.

You can also force the modem to answer a call even if the phone is not ringing. This comes in handy if you are on the phone with someone and decide to transfer some information (programs) over the modem. On the other hand, if you need to originate a call the modem can handle that also.

Some services require that you send a BREAK code to their system to accomplish certain tasks. This is built into the modem and can be accessed using the control code and a B.

You also have control over how many times to let the phone ring before answering the phone. This also has a bearing on how long to let the phone ring when you are calling out to another system. If you are set up to answer the phone on the first ring, then the Info-Mate will wait for the 5th ring when calling another system before giving up.

That brings us to the dialing commands. Are these fun! You can tell it to dial a number. Ok, maybe that is not so great, BUT the modem decides for itself whether you have a dial or touch tone line! OR you can tell it which you have OR you can switch while the dialing is in progress. An example of this would be having to pulse dial 9 to get an outside line and then being able to touch tone from there, say through a Sprint number. The dialing command line will allow up to 32 characters so that it can accommodate most (if not all) of the different common carrier control sequences. Now a 32 digit phone number is not something that is easy to remember, so Cermetek decided to build a memory into the modem. It will remember up to 52 of these 32 digit numbers! And it will remember which one you called last

GOTO 13



Cermetek Concluded from page 12

if it is busy you can redial without much trouble. The nice thing about all this is that the numbers that are stored in the modem can be accessed by using the control code, D, and the letter that they are stored under A-Z, and a-z.

Now about that busy signal you just got.... The modem is smart enough to know if the line was busy or not and if you do get a busy signal, you can tell it to redial. There are two ways to do this. Number one is to do a control code D and the firmware will cause the modem to redial the last dialed number. The other easier way is to give the modem a number between 1 and 14 after you give it the number to dial (in the same command string) and it will automatically redial the number up to the number of times that you have told it or until it gets an answer! Now that you have gotten all this done, what if you have two numbers that you want to try? Almost as easy. You can type in the telephone numbers that you want it to try and, once again, give it a number of times to try them if they are both busy. But the easiest way to get this done is to have the number stored in the modem and tell the modem control code D A B 14. This will dial the number stored in A and if it is busy then dial the number stored in B and if it is busy go back and try A. This will continue until one of them answers or we have tried each number 14 times. The limit to this command line is 32 characters so you can try almost all the bulletin boards in the area until one answers!

Maybe you don't know 52 numbers that you can call on the modem (or at least do so regularly enough to warrant saving the numbers) then you can use the extra space in the modem memory to store passwords to the systems that you do call. Here again, you can store up to 32 digits in this string and when you call the system we can then send it with a control code to the modem. Now that you have all this information stored in the modem, how do you remember what is where? There is a command to show all the numbers/passwords that are stored in the modem. I can see that you are getting one step ahead of me. You don't want anyone seeing your passwords so you can start them with the 'at' sign and then that is the only thing that will show when the numbers/passwords are listed. The information is still there, it just doesn't show. How about when you send the password to the system that you are calling? Nope, it doesn't show then either!

You also have the option of telling the modem to not listen to any of the information that it is passing if it is possible that it might contain the control code and get things all

confused. There are three levels of this command. The one is to listen for commands. The next is not to listen until the modem receives a 'break' character from the computer. The last level is don't even listen to the break character. The only way to reset this mode is to turn the modem off and then back on.

Now that you have given the modem all these commands, you may have gotten yourself lost, so there is a command to restore everything to the way it is on power up.

Now for the more technically inclined, the modem even has 8 internal diagnostic test modes that can be activated if you feel better checking things once in a while. These range all the way from self-test to testing the modem on the other end and the lines in between!

Sure it's a nice modem, but it must cost a fortune! Not so! The closest COMPARABLE modem is priced at \$795. The Cermetek goes for \$595. This turns out to be even cheaper than some of the 'other guys' that don't do nearly as much! So if you are in the market for a modem or are looking to upgrade to 1200 baud, I would suggest that you take a close look at the Cermetek modem. I think that it is quite a lot of value for the money.



Keep that Card

by Dave Nordvall

If you have put put your Integer or Applesoft™ card away when you got a language or RAM card, get it back out. It can be used in any slot, saving your Ram card for other uses. Boot up your system and do the appropriate POKES.

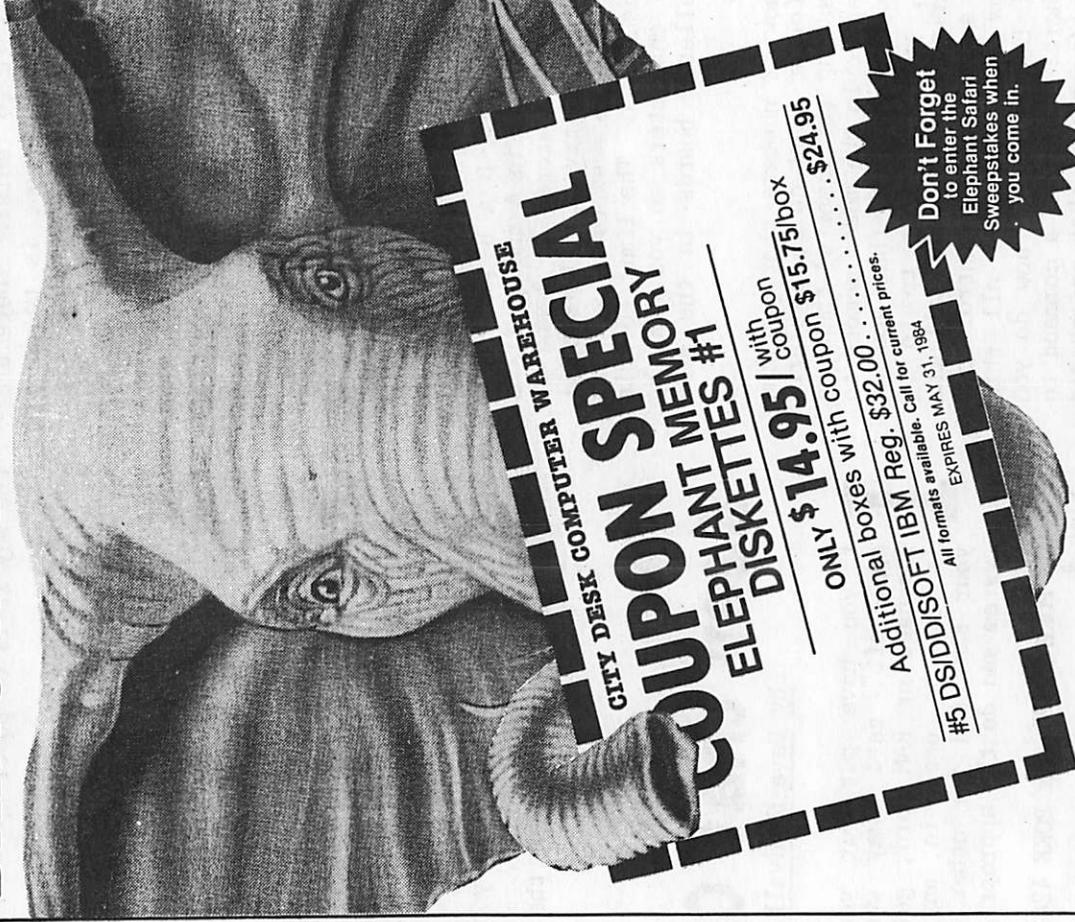
POKE 42424,xxx POKE 42432,xxx

Slot #		
1	,144	,145
2	,160	,161
3	,176	,177
4	,192	,193
5	,208	,209
6	,224	,225
7	,140	,241

Now initialize a disk. Whenever this disk is booted your ROM card will be used, leaving the RAM card free.



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BIT Twiddling

An Assembly Language Technique
by Steve George

This article is but one example of a method of solving a specific problem. Several methods might have been utilized, but this is a recount of the thought process leading to problem solution.

Each month the club receives several newsletters in an exchange with other user groups. One columnist recently posed an interesting question, which I will relate to you. He had the need to reverse the order of the lower 7 bits of any given byte (presumably, the 8th bit should be preserved).

Samples:

Input			=>	Output		
DEC	HEX	BINARY		BINARY	HEX	DEC
1	01	0000001	=>	01000000	40	64
5	05	0000101	=>	01010000	50	80
8	08	0001000	=>	00010000	08	8
9	09	0001001	=>	10010000	48	72
10	0A	0001010	=>	01010000	28	40
126	7E	01111110	=>	01111111	3F	63
254	FE	11111110	=>	10111111	BF	191

My initial reaction was Why in the world... But my second was, Hmm, sorta sounds like hi-res screen tweaking... And my final reaction was to try to find a reasonable solution. (The article stated that Applesoft, multiple divide routines, etc., were too slow.)

Hi-res screen, let's see... One of the fastest ways of tweaking the screen pixels has to do with Look-up/Offset tables. This is where my solution started. This problem doesn't specifically deal with the hi-res screen, but having thought of the technique, I proceeded with a solution utilizing the 'look-up table'. (Later in the discussion, a hi-res screen is used simply to illustrate (visually) that things are indeed changing.)

First, let's create a short (but slow) Applesoft program to create a 'look-up table' of the desired values. Because the hi-bit remains unchanged, we can limit the look-up table to translation of bytes in the \$0 to \$7F range.

```

50 REM CREATES 'LOOKUP' TABLE AT $300-$37F
100 ADDR = 768
110 FOR INBYTE= 0 TO 127:I= INBYTE:
115 REM LOOK-UP ONLY THE LOWER 7 BITS
120 A= 0:B= 0:C= 0:D= 0:E= 0:F= 0:G= 0
    
```

```

130 REM WASTEFUL CODING/USED ONLY ONCE
140 IF I > 63 THEN I = I - 64: A = 1
150 IF I > 31 THEN I = I - 32: B = 1
160 IF I > 15 THEN I = I - 16: C = 1
170 IF I > 7 THEN I = I - 8: D = 1
180 IF I > 3 THEN I = I - 4: E = 1
190 IF I > 1 THEN I = I - 2: F = 1
200 IF I THEN G = 1
210 OUTBYTE=G*64+F*32+E*16+D*8+C*4+B*2+A
215 REM CONSTRUCT 'BACKWARDS' BYTE
220 POKE ADDR, OUTBYTE: ADDR= ADDR + 1
230 NEXT INBYTE
240 END
    
```

Execute with RUN

Now add these lines to create the working part of the routine adjacent in memory to the look-up table:

```

245 REM CREATES 'CONVERT' CODE FROM $380-$390
250 POKE 896, 169: POKE 897, 0
260 POKE 898, 72
270 POKE 899, 41 : POKE 900, 127
280 POKE 901, 168
290 POKE 902, 104
300 POKE 903, 41 : POKE 904, 128
310 POKE 905, 121: POKE 906, 0 :POKE 907,3
320 POKE 908, 141: POKE 909, 144:POKE 910,3
330 POKE 911, 96 : POKE 912, 0
340 END
    
```

Execute with RUN 250

When disassembled, it looks as follows:

```

$0380: A9 00      LDA  #000      ;(see * below)
$0382: 48         PHA             ;SAVE A
$0383: 29 7F      AND  #07F     ;DROP HI BIT
$0385: A8         TAY             ;TABLE OFFSET
$0386: 68         PLA             ;RETRIEVE A
$0387: 29 80      AND  #080     ;KEEP HI BIT
$0389: 79 00 03   ADC  $0300,Y   ;ADD TABLE VAL
$038C: 8D 90 03   STA  $0390     ;STORE A-REG
$038F: 60         RTS             ;RETURN TO PGM
$0390: 00         BRK             ;STORAGE LOC
    
```

* Location \$381 (897 dec.) will be poked with the value we want converted. The converted byte will be stored at \$390. It is available to Applesoft through the use of PEEK (912)

The following short Applesoft program will input all 256 possibilities and produce the resultant output in the variable OUT. To see the IN's and OUT's, replace the REM in line 390 with GOSUB 420 to display the decimal values.

GOTO 16

Bit Twiddling Continued from page 16

```

345 REM POKE ALL 256, GET RESULTS W/PEEK
350 FOR IN= 0 TO 255
345 REM POKE BYTE INTO ASSEM. ROUTINE
360 POKE 897, IN
365 REM PASS CONTROL TO ASSEM. ROUTINE
370 CALL 896
375 REM GET RESULT WITH A PEEK
380 OUT= PEEK( 912)
390 REM PUT GOSUB 420 HERE TO SEE VALUES
400 NEXT IN
410 END
420 PRINT IN,OUT : RETURN
Execute with RUN 350
    
```

As I originally wrote the program (in Applesoft), it created the proper output in approx 40 seconds for all 256 possible input values. With the substitution of this short assembly program for the "working" part of the routine, the time is down to about 3 seconds.

The following uses the hi-res screen and alters its display simply to illustrate the speed at which all 1024 bytes of hi-res display can be changed using our look-up table.

The hi-res picture itself isn't reversed, just the individual bytes comprising the display. A little experimentation reveals that geometric figures and hi-res letters (if each is a single byte) work the best. Notice in the accompanying examples that the words are still read left to right but that the individual letters are reversed.

```

425 REM 'HI-RES BYTER':USES LOOKUP & CONVERT
430 HGR
435 REM USE YOUR PIC IN PLACE OF 'MY.PIC'
440 PRINT CHR$(4)"BLOAD MY.PIC,A$2000"
445 REM CREATES ROUTINE FROM $391-$3B8
450 POKE 913, 169: POKE 914, 0
460 POKE 915, 133: POKE 916, 6
470 POKE 917, 168
480 POKE 918, 169: POKE 919, 32
490 POKE 920, 133: POKE 921, 7
500 POKE 922, 170
510 POKE 923, 134: POKE 924, 8
520 POKE 925, 177: POKE 926, 6
530 POKE 927, 132: POKE 928, 9
540 POKE 929, 133: POKE 930, 10
550 POKE 931, 32: POKE 932, 130:POKE 933,3
560 POKE 934, 164: POKE 935, 9
    
```

GOTO 17
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Bit Twiddling Concluded from page 16

```

570 POKE 936, 145: POKE 937, 6
580 POKE 938, 230: POKE 939, 9
590 POKE 940, 164: POKE 941, 9
600 POKE 942, 208: POKE 943, 237
610 POKE 944, 230: POKE 945, 7
620 POKE 946, 198: POKE 947, 8
630 POKE 948, 166: POKE 949, 8
640 POKE 950, 208: POKE 951, 229
650 POKE 952, 96
655 REM PASS CONTROL TO $391
660 CALL 913
670 END

```

Execute with RUN 430

If you CALL 913 again, the picture will revert back to normal. Try a short loop to illustrate the point:

```

680 FOR X= 1 TO 9: CALL 913: NEXT
690 END

```

Execute with RUN 680

This is what the above looks like when disassembled. It's a bit (hmm) convoluted because it was entirely an afterthought and I wanted to utilize the routines already entered.

```

$0391: A9 00   LDA #$00   ;HI-RES LO ADDR
$0393: 85 06   STA $06   ;STORE LO BYTE
$0395: A8     TAY      ;HI-RES OFFSET
$0396: A9 20   LDA #$20   ;HI-RES HI BYTE

```

```

$0398: 85 07   STA $07   ;STORE HI BYTE
$039A: AA     TAX      ;$20=$2000/$100
$039B: 86 08   STX $08   ; =NUM OF PAGES
$039D: B1 06   LDA ($06),Y;GET PIC BYTE
$039F: 84 09   STY $09   ;STORE OFFSET
$03A1: 85 0A   STA $0A   ;STORE ORIG BYTE
$03A3: 20 82 03 JSR $0382 ;LOOK-UP TABLE
$03A6: A4 09   LDY $09   ;RESTORE Y
$03A8: 91 06   STA ($06),Y;STORE NEW BYTE
$03AA: E6 09   INC $09   ;INCR OFFSET
$03AC: A4 09   LDY $09   ;LOAD NEW OFFSET
$03AE: D0 ED   BNE $039D ;<$100 BYTES, GO
$03B0: E6 07   INC $07   ;INCR HI-RES HI
$03B2: C6 08   DEC $08   ;DECR # PAGES
$03B4: A6 08   LDX $08   ;ANY LEFT?
$03B6: D0 E5   BNE $039D ;<$20 PAGES, GO
$03B8: 60     RTS      ;RTN TO CALLER

```

The assembly routines are so quick that it is difficult to time their execution accurately. So, out came the reference books, and if the charts were read correctly, the conversion of a byte (w/o Applesoft) takes 30 clock cycles and the hi-res byter routine takes 78 clock cycles (plus 28). Assuming your machine runs at 1,023,000 clock cycles per second, these routines are fast indeed.

Lastly, here's a one-liner sure to slow down even the fastest typist:

```

0 GET A$: POKE 897, ASC (A$): CALL 896:
  PRINT CHR$ ( PEEK ( 912 ) ) ;: GOTO 0

```



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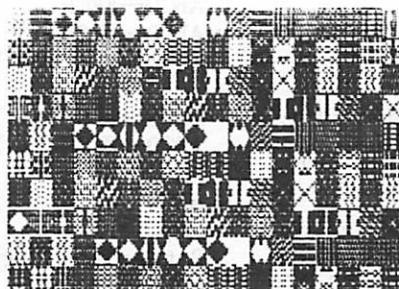
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Puzzles and Prizes

Carl Swartz wins!
by Ron Androff

The third puzzle proved to be a toughie. The task was to write a program that would determine which of twelve coins was defective (heavier or three tests on a balance to deduce the coin.

The first and hardest part is to decide how to arrange a set of tests that will expose the defective coin where ever it is placed among the twelve coins. Obviously, we must discover a maximum amount of information with each test if we are to solve the problem because strangely enough, three tests are the minimum number needed to solve it. The following describes the procedure of tests and the conclusions.

Label the coins A through L for the sake of discussion. And for the first test always balance coins ABCD on one side and coins EFGH on the other side. If the result of the first test is an imbalance, then for test two always balance coins ABE on one side and coins CFI on the other side. If, however, the result of the first test is a balance, then for test two balance the IJ coins on one side and the KA coins on the other side. The following table shows the test results and the conclusions that can be made from them. In the table "/", "\" and "=" mean, respectively, scale tipped left, right or balanced.

test 1	test 2	conclusions
ABCD/EFHG	ABE/CFI	A or B heavy or F light
ABCD/EFHG	ABE\CFI	C heavy or E light
ABCD/EFHG	ABE=CFI	D heavy or G or H light
ABCD\EFHG	ABE/CFI	C light or E heavy
ABCD\EFHG	ABE\CFI	A or B light or F heavy
ABCD\EFHG	ABE=CFI	D light or G or H heavy
ABCD=EFHG	IJ/KA	I or J heavy or K light
ABCD=EFHG	IJ\KA	I or J light or K heavy
ABCD=EFHG	IJ=KA	L light or heavy

There are five possible tests for test three, namely A-B, C-I, G-H, I-J, or L-A. For example, take case one in the table: The conclusions drawn are "A or B is heavy or F is light". To prove which, balance A and B, and as the balance tips A or B is heavy or if it balances then F is light. If C or D coins are suspect then balancing coin C (a suspect) with coin I (known good) will prove which, etc.

The following table of tests show how a defective coin in each position can be detected.

Test 1	Test 2	Test 3	Result
ABCD/EFHG	ABE/CFI	A/B	A Heavy
ABCD\EFHG	ABE\CFI	A\B	A Light
ABCD/EFHG	ABE/CFI	A\B	B Heavy
ABCD\EFHG	ABE\CFI	A/B	B Light
ABCD/EFHG	ABE\CFI	A/I	C Heavy
ABCD\EFHG	ABE/CFI	C\I	C Light
ABCD/EFHG	ABE=CFI	G-H	D Heavy
ABCD\EFHG	ABE=CFI	G-H	D Light
ABCD\EFHG	ABE/CFI	C-I	E Heavy
ABCD/EFHG	ABE\CFI	C-I	E Light
ABCD\EFHG	ABE\CFI	A-B	F Heavy
ABCD/EFHG	ABE/CFI	A-B	F Light
ABCD\EFHG	ABE=CFI	G/H	G Heavy
ABCD/EFHG	ABE=CFI	G\H	G Light
ABCD\EFHG	ABE=CFI	G\H	H Heavy
ABCD/EFHG	ABE=CFI	G/H	H Light
ABCD=EFHG	IJ/KA	I/J	I Heavy
ABCD=EFHG	IJ\KA	I\J	I Light
ABCD=EFHG	IJ/KA	I\J	J Heavy
ABCD=EFHG	IJ\KA	I/J	J Light
ABCD=EFHG	IJ\KA	I-J	K Heavy
ABCD=EFHG	IJ/KA	I-J	K Light
ABCD=EFHG	IJ=KA	L/A	L Heavy
ABCD=EFHG	IJ=KA	L\A	L Light
ABCD=EFHG	IJ=KA	L-A	ERROR

Rather than try to develop a program to solve this problem, I think I will simply list the



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winning solution submitted by Carl Swartz. The prize for this contest was provided by Personal Business Systems at 4306 Upton Ave. S. PBS is a local firm that has supported our club in many ways for a long time. I want to express my appreciation to them. I do not have another puzzle to announce at this time. If any of you have one to offer please contact me.

- 0 GOTO 100
- 1 REM MINI'APPL'ES PUZZLE # 3
- 10 DECEMBER 23RD,1983
- 12 HOME : REM BALANCED
- 14 PRINT TAB(5);L\$;TAB(20);"!"
- 16 PRINT TAB(5);"!" ;TAB(20)
- 18 PRINT TAB(6);"LEFT";TAB(20);
- 20 PRINT
- 22 PRINT : RETURN
- 30 HOME : REM TIPPED LEFT
- 32 PRINT TAB(28);R\$
- 34 PRINT TAB(18);CHR\$(92);
- 36 PRINT TAB(5);L\$;TAB(19);
- 38 PRINT TAB(5);"!" ;
- 40 PRINT TAB(6);"LEFT"
- 42 PRINT : RETURN
- 50 HOME : REM TIPPED RIGHT
- 52 PRINT TAB(5);L\$
- 54 PRINT TAB(5);"!" ;
- 56 PRINT TAB(6);"LEFT";TAB(21);
- 58 PRINT TAB(20);"!" ;
- 60 PRINT TAB(29);"RIGHT"
- 62 PRINT : RETURN
- 70 PRINT
- 72 PRINT
- 74 PRINT
- 80 IF Z\$ = "B" THEN GOSUB 10 :
- 82 GOSUB 74 : RETURN
- 84 IF Z\$ = "R" THEN GOSUB 50 :
- 86 GOSUB 74 : RETURN
- 88 IF Z\$ = "Q" THEN 999
- 90 RETURN
- 100 TEXT : HOME : PRINT : PRINT "
- 105 OF HIS"
- 110 PRINT : PRINT "TWELVE SILVERSMITHS
- 115 PRINT : PRINT "EACH OF THE MEN,
- 120 GOSUB 100
- 125 PRINT : PRINT "YOU MUST NOW
- 130 DETERMINE WHICH ONE COIN"
- 135 THE REST AND YOU MUST"
- 140 PRINT : PRINT "ONLY ALLOWED TO
- 145 USE THE BALANCE THREE"
- 150 PRINT : PRINT "LIGHTER OR HEAVIER
- 155 THAN THE OTHERS."
- 160 PRINT : PRINT "NORMAL : GET A\$
- 165 HELP BY TELLING YOU WHICH"
- 170 PRINT : PRINT "COINS TO PLACE ON
- 175 THE BALANCE, BUT YOU"
- 180 PRINT : PRINT "MUST TELL ME WHICH
- 185 WAY THE BALANCE TIPS."
- 190 PRINT : PRINT
- 195 PRINT : PRINT : PRINT
- 200 PRINT : PRINT : PRINT
- 210 PRINT : PRINT
- 220 PRINT "PLACE THE COINS OF ALI,
- 225 BABA, CALI, AND"
- 230 PRINT : PRINT "DADA ON THE LEFT
- 235 PAN OF THE BALANCE."
- 240 PRINT : PRINT "IF IT TIPS TO
- 242 THE LEFT, PRESS 'L.'" :
- 244 PRINT : PRINT "IF IT TIPS TO
- 250 THE RIGHT, PRESS 'R.'" :
- 255 PRINT : PRINT "IF YOU WISH
- 260 TO QUIT, PRESS THE 'Q.'" :
- 265 GET X\$
- 270 IF X\$ = "L" THEN GOSUB 30 :
- 275 GOSUB 70 : GOTO 300
- 280 IF X\$ = "R" THEN GOSUB 50 :
- 285 GOSUB 70 : GOTO 300
- 290 IF X\$ = "Q" THEN 250
- 295 GOTO 999
- 300 L\$ = "A B E":R\$ = "C F I"
- 310 GOSUB 10

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Puzzles & Prizes Continued from page 20

565 IF Z\$ = "B" AND Y\$ = "R" THEN
 PRINT "ELI'S COIN WAS LIGHT."
 GOTO 999
 570 IF Z\$ = "L" AND Y\$ = "R" THEN
 PRINT "CALI'S COIN WAS HEAVY."
 GOTO 999
 575 IF Z\$ = "R" AND Y\$ = "L" THEN
 PRINT "CALI'S COIN WAS LIGHT."
 GOTO 999
 580 IF Z\$ = Y\$ THEN PRINT "YOUR
 WEIGHINGS ARE CONTRADICTORY."
 GOTO 999
 590 GOTO 550
 600 I\$ = " G":R\$ = " H"
 GOSUB 10
 620 PRINT "PLACE GALI'S COIN ON
 THE LEFT PAN AND"
 630 PRINT "HAHA'S COIN ON THE RIGHT
 PAN."
 640 PRINT "PRESS 'L', 'R', 'B', OR
 'Q'."
 650 GET Z\$: GOSUB 80
 660 IF Z\$ = "B" AND X\$ = "L" THEN
 PRINT "DADA'S COIN WAS HEAVY."
 GOTO 999
 665 IF Z\$ = "B" AND X\$ = "R" THEN
 PRINT "DADA'S COIN WAS LIGHT."
 GOTO 999
 670 IF Z\$ = "L" AND X\$ = "R" THEN
 PRINT "GALI'S COIN WAS HEAVY."
 GOTO 999

GOTO 23

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320 PRINT "PLACE THE COINS OF ALI,
 BABA, AND ELI"
 325 PRINT "ON THE LEFT PAN
 OF THE BALANCE."
 330 PRINT "PLACE THE COINS
 OF CALI, FAFA, AND ILI"
 335 PRINT "ON THE RIGHT PAN
 OF THE BALANCE."
 340 PRINT "PRESS 'L' FOR
 LEFT, 'R' FOR RIGHT, 'B'
 PRINT "FOR BALANCE, OR
 'Q' FOR QUIT."
 350 GET Y\$
 360 IF Y\$ = "B" THEN GOSUB 10:
 GOSUB 72: GOTO 600
 365 IF Y\$ = "L" THEN GOSUB 30:
 GOSUB 72
 370 IF Y\$ = "R" THEN GOSUB 50:
 GOSUB 72
 375 IF X\$ = Y\$ THEN 400
 380 IF Y\$ = "L" OR Y\$ = "R" THEN
 500
 390 IF X\$ < "Q" THEN 350
 395 GOTO 999
 400 I\$ = " A":R\$ = " B"
 410 GOSUB 10
 420 PRINT "PLACE ALI'S COIN ON THE
 LEFT PAN AND"
 430 PRINT "BABA'S COIN ON THE RIGHT
 PAN."
 440 PRINT "PRESS 'L', 'R', 'B', OR
 'Q'."
 450 GET Z\$: GOSUB 80
 460 IF Z\$ = "B" AND Y\$ = "R" THEN
 PRINT "FAFA'S COIN WAS HEAVY."
 GOTO 999
 465 IF Z\$ = "B" AND Y\$ = "L" THEN
 PRINT "FAFA'S COIN WAS LIGHT."
 GOTO 999
 470 IF Z\$ = "L" AND Y\$ = "L" THEN
 PRINT "ALI'S COIN WAS HEAVY."
 GOTO 999
 475 IF Z\$ = "R" AND Y\$ = "R" THEN
 PRINT "ALI'S COIN WAS LIGHT."
 GOTO 999
 480 IF Z\$ = "L" AND Y\$ = "R" THEN
 PRINT "BABA'S COIN WAS LIGHT."
 GOTO 999
 485 IF Z\$ = "R" AND Y\$ = "L" THEN
 PRINT "BABA'S COIN WAS HEAVY."
 GOTO 999
 490 GOTO 450
 500 I\$ = " C":R\$ = " F"
 510 GOSUB 10
 520 PRINT "PLACE CALI'S COIN ON
 THE LEFT PAN AND"
 530 PRINT "FAFA'S COIN ON THE RIGHT
 PAN."
 540 PRINT "PRESS 'L', 'R', 'B', OR
 'Q'."
 550 GET Z\$: GOSUB 80
 560 IF Z\$ = "B" AND Y\$ = "L" THEN
 PRINT "ELI'S COIN WAS HEAVY."
 GOTO 999

Puzzles & Prizes Continued from page 22

```

780 IF Y$ = "B" THEN GOSUB 10 : GOSUB
    72 : GOTO 900
790 IF Y$ < "Q" THEN 750
795 GOTO 999
800 L$ = " J" : R$ = " K"
810 GOSUB 10
820 PRINT "PLACE GJAJA'S COIN ON THE
    LEFT PAN AND"
830 PRINT "KALIT'S COIN ON THE RIGHT
    PAN."
840 PRINT "PRESS 'L', 'R', 'B', OR
    'Q'."
850 GET Z$ : GOSUB 80
860 IF Z$ = "B" AND Y$ = "R" THEN
    PRINT "LIT'S COIN WAS LIGHT." :
    GOTO 999
865 IF Z$ = "L" AND Y$ = "L" THEN
    PRINT "LIT'S COIN WAS HEAVY." :
    GOTO 999
870 IF Z$ = "L" AND Y$ = "R" THEN
    PRINT "JAJA'S COIN WAS HEAVY." :
    GOTO 999
875 IF Z$ = "L" AND Y$ = "L" THEN
    PRINT "KALIT'S COIN WAS LIGHT." :
    GOTO 999
880 IF Z$ = "R" AND Y$ = "L" THEN
    PRINT "JAJA' COIN WAS LIGHT." :
    GOTO 999
770 IF Y$ = "R" THEN GOSUB 50 : GOSUB
    72 : GOTO 800
760 IF Y$ = "L" THEN GOSUB 30 : GOSUB
    72 : GOTO 800
750 GET Y$
    'Q' FOR
    PRINT : PRINT "FOR BALANCE, OR
    LEFT, 'R' FOR
    RIGHT, 'B'"
745 PRINT : PRINT "PRESS 'L' FOR
    BALANCE."
740 PRINT : PRINT "RIGHT PAN OF THE
    OF JAJA AND KALI ON THE"
735 PRINT : PRINT "PLACE THE COINS
    BALANCE."
730 PRINT : PRINT "LEFT PAN OF THE
    AND LIT ON THE"
725 PRINT : PRINT "PLACE THE COINS OF HABA
    GOSUB 10
720 L$ = " H I" : R$ = " J K"
710 GOTO 650
690 GOTO 999
685 PRINT "HAHA'S COIN WAS LIGHT." :
    IF Z$ = "L" AND X$ = "L" THEN
    GOTO 999
680 PRINT "HAHA'S COIN WAS HEAVY." :
    IF Z$ = "R" AND X$ = "R" THEN
    GOTO 999
675 IF Z$ = "R" AND X$ = "L" THEN
    PRINT "GALIT'S COIN WAS LIGHT." :
    GOTO 999
    
```

-23-

GOTO 24

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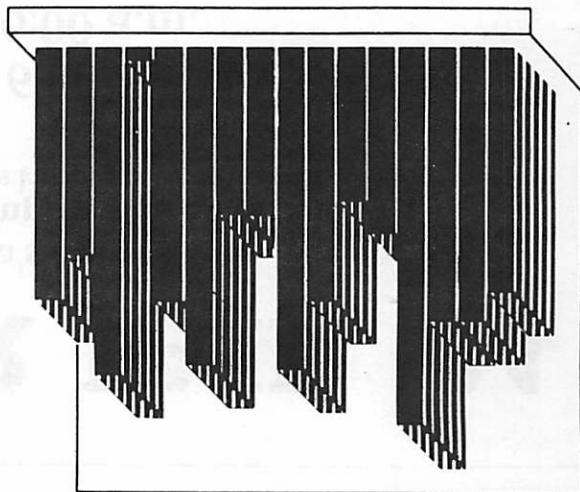
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		920-7500

885 IF Z\$ = "R" AND Y\$ = "R" THEN PRINT "KALI'S COIN WAS HEAVY.";

890 GOTO 850

900 I\$ = " R":R\$ = " L"

910 GOSUB 10

920 PRINT "PLACE KALI'S COIN ON THE LEFT PAN AND"

930 PRINT "LALA'S COIN ON THE RIGHT PAN."

940 PRINT "PRESS 'L', 'R', 'B', 'O', 'Q', 'S';

950 GET Z\$: GOSUB 80

960 IF Z\$ = "B" THEN PRINT "ALL COINS WERE OF EQUAL WEIGHT.";

GOTO 999

970 IF Z\$ = "L" THEN PRINT "LALA'S COIN WAS LIGHT.";

GOTO 999

980 IF Z\$ = "R" THEN PRINT "LALA'S COIN WAS HEAVY.";

GOTO 999

990 GOTO 950

END

Lines 10 through 74 print the text on the screen. Small subroutines are called after each test to show the result: scale balanced lines 10-22, scale tipped left 30-42 and scale

tipped right 50-62. Lines 70, 72 and 74 move the screen's top window pointer and effectively protect the text from being overwritten. Control for all third tests is passed to lines 80 through 88, which chooses the subroutine to print the result. Line 100 is the beginning of the program with 100-155 printing out the first "page" and 160-195 printing out the second "page" of the instructions. Lines 200 through 295 perform test one and pass control to line 300 if the result of the test is tipped left or right and line 700 if it was balanced. Lines 300-395 perform test two and pass control to the proper line to run test three to solve for a defective coin in positions A through H. I specified in the earlier discussion that test two would consist of IJ-KA, but Carl chose HI-JK. This means that the process will be slightly different but the result will be the same. It also points out that there are usually several ways to do anything. Anyway, the second test is performed in lines 700-795 and control is passed to the proper line if (800-990) to solve for the defective coin if it should be one of the coins I through L.

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Minutes

Board Meeting, April 11, 1984

by Hugh Kurtzman

Reading of the minutes was waived. There were no corrections.

Treasurer's report:

Balance March 1	\$7369.77
Income	4824.20
Expenses	4075.92
	<hr/>
Balance March 31	8118.05

John Hansen will be meeting with a tax accountant so we can settle with the IRS.

Dave Nordval reported that MECC has again backed out of our deal with them. It seems that we were selling disks too cheap.

There was a discussion about **STARTING** the main meetings on time and also about the problems with members leaving during the presentation. The suggestion was made that we have a pause during the meeting to let people leave.

Jere Kauffman suggested we ask that questions be written out for the Q&A period. As a

counter proposal, it was agreed that Peter Gillis will try to capture those questions and answers in a form suitable for publication in the newsletter.

Dan Buchler had a discussion with Ray Douglas, the moderator of KSTP Talk, about that talk show on computers which is aired every Saturday at 5PM. He praised Pete Gillis for the great job he did on the show in March. In exchange for a small ad in the newsletter, we will be invited to the show on the 2nd Saturday of each month. Dan will be contacting people to appear on the show.

There is some question as to what is happening to the IAC DOMs and other mailings from IAC. The secretary will call IAC to find out.

A motion was passed that we, as a club, vote for Mike Carlson as IAC regional director.

The subject of PA systems was again discussed. We are still trying to borrow one of the units proposed to try out at a meeting. The Lincoln School site will have a PA system available for our use.



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Networker

A Discussion and Evaluation
of Networker Modem & Software
by Steve George

But first, a short digression: 3 years ago I just knew that the very first peripheral I would purchase would be a modem. Why, I wasn't sure. I had no experience with them. But I immediately called Ma Bell to either add call-forwarding or cancel call-waiting. It was not to be... For 3 years I got along swimmingly adding many peripherals - but not a modem. Then it hit, again! You KNOW that burning desire for that special peripheral!

Well, 3 weeks ago I borrowed a great modem package from the local distributor. My two week evaluation period was up last Monday and I reluctantly relinquished my grasp on it. Today, Thursday, it hit me again: I have to have one! That brief taste of the communications world had whetted my appetite. Boy, what I'd missed for the last 3 years...

We've all seen the ads for the Networker Modem stating that for just \$129 you get a modem and software to run it. Well, I'm here to tell you its all true, and more!

The specifics: Networker Modem, Networker software, NetMaster Software manufactured by ZOOM Telephonics, Boston.

Purpose: to allow your Apple to communicate with other computers via the phone lines (bulletin boards, the Source, friends, newsletter editors, etc.)

Requirements: 48k minimum; Apple][,][+, //e or compatible.

The Product: Networker Modem (peripheral card which plugs into an expansion slot - normally slot 2), an external switch to select Originate or Answer mode, a 6' modular telephone cable, a free Source membership, and one of two software disks. Networker software is included @ \$129 and NetMaster Software included @ \$179. The Networker Modem was designed with the casual/recreational user in mind, but it offers compatibility with expensive software such as ASCII Pro, Data Capture 4.0, etc.

The Networker Modem card itself is Micromodem compatible and accepts direct keyboard-control of its firmware. Standard manual procedure: IN#2 <CR>, ctrl-A ctrl-F <CR> (sets up the modem for Full Duplex reception), dial the phone number, set the Originate switch, and away you go... But when software's included, why bother?

The Networker software is sheer simplicity to use. One menu, 13 choices. Selection is with the arrow keys and a <CR>. The primary feature of the software is its massive 32,000 character text-trap (all in a plain vanilla 48k Apple!!). You can easily capture your conversation or bulletin board information such as the list of commands the board supports. Also, you can capture downloaded programs! After receiving an APPLESOFT program, I simply output the received information as a TEXT file to the disk, exited the software, re-booted, and EXECed the TEXT file into memory. Voila - a workable program for free. Note that any program that is downloaded must be treated as a TEXT file.

Networker software was designed primarily for use in accessing bulletin boards. The bottom 3 lines of your screen continuously display the status of your modem/software. Besides the on-screen display, the carrier status is monitored by a red LED on the Originate/Answer switch.

GOTO 28

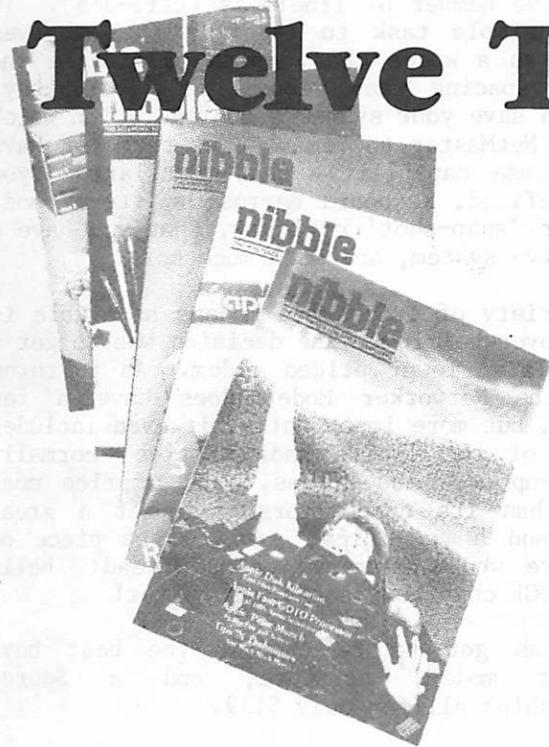
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Networker Concluded from page 26

NetMaster Software is available either with the modem package (called NetMaster Combo) or as a separate software package for use with any modem. NetMaster adds to your modem's capabilities by utilizing a 16k RAM card in slot 0, if available. This is great, because the program has more features and it takes up more memory. But, that is 'recoverable' if you have a 16k card, making the text buffer 43520 chars! Again, most of the general features are toggled. The NetMaster Combo includes the upgraded software and a loose-leaf manual describing its use.

Some of the upgraded features that are part of NetMaster are:

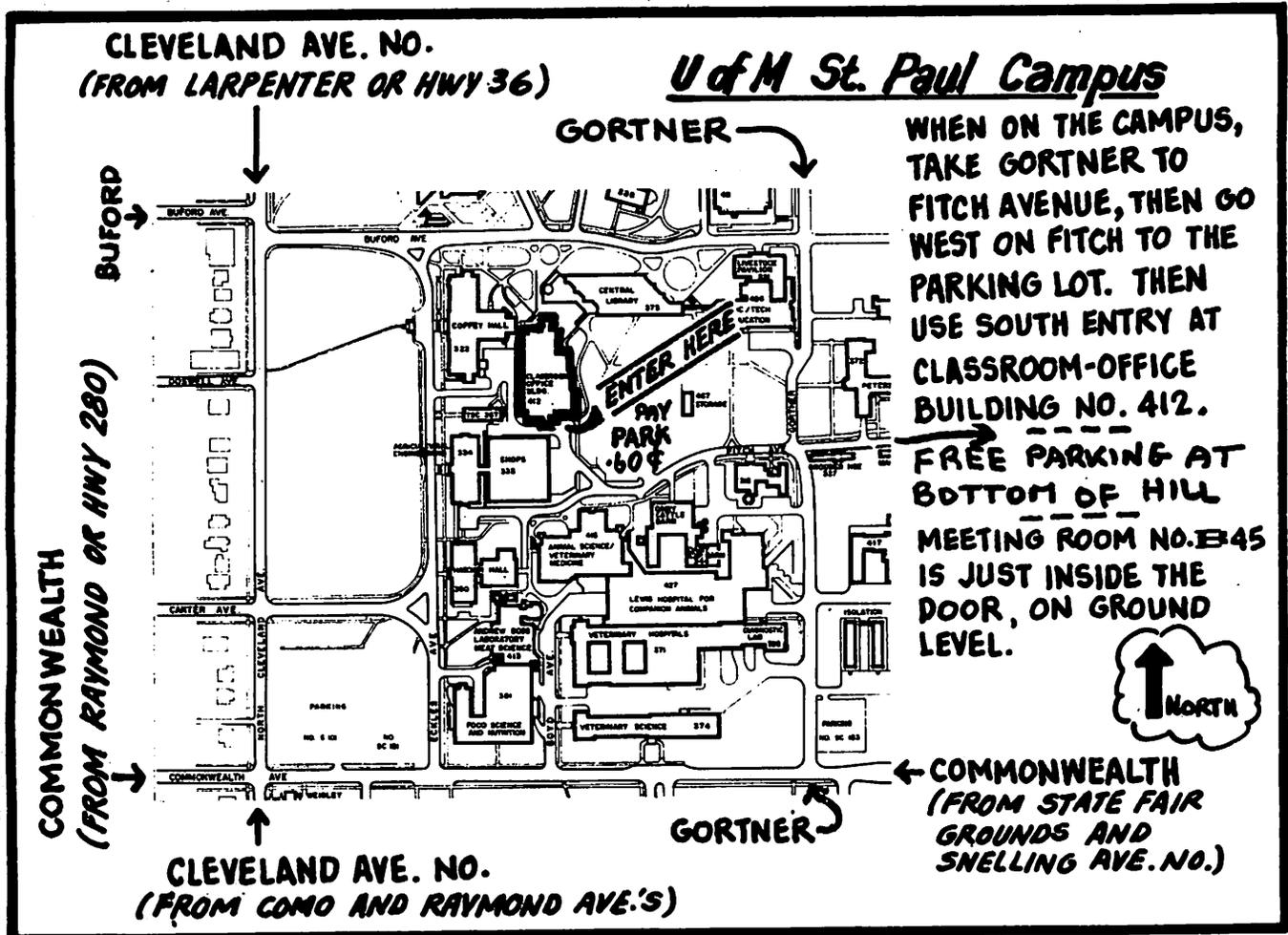
- 1) the Receive/Transmit Translation Tables,
- 2) the ability to save your system's configuration to the NetMaster or a Data disk, and
- 3) A 'snap-shot' screen dump. Invoked with a ctrl-@, the captured text buffer can be sent at any time to a printer for hard-copy or disk for storage and manipulation with a text processor. Alternatively, one can print the whole text-trap! There does not appear to be any way of printing at the same time the communication is arriving at the computer.

Most of the local boards I've been on send an excessive number of linefeeds (ctrl-J's). It was a simple task to redefine the Received ctrl-J as a space char, which eliminated the double spacing when requesting a hard-copy. You can save your system's configuration which allows NetMaster to remember whether you have lower case capability, what translations you have defined, keyboard macros, shift-key mod, printer 'snap-shot' ctrl key, that you have a two drive system, and much much more!

The variety of prices and modems available is truly overwhelming. The decision was to get a 'no frills' lower priced modem. As it turns out, the Networker Modem does have a few frills, but more importantly, it even includes a few of the 'bells and whistles' normally passed-up at these prices. For a price much less than its competitors, you get a great modem and a very nice, easy to use piece of software whose primary feature (read: bell) is a HUGE char text capturing buffer!

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If you've been considering a modem purchase, you owe it to yourself to check out the Networker packages.



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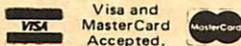
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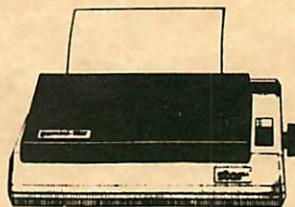
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