



mini' app'les



Apple Computer user group newsletter

Volume XI No.9 September 1988

Calendar of Meetings and Events

WHO	WHEN	WHERE	WHAT
Mac Users	Thur. Sep. 1 (6:30) 7:00 pm	Hennepin County Library, Southdale Branch, 70th and Xerxes, Edina, MN	Spacemaster 3D Sketch Program SketchTech Inc., Notes 14 & 4
Board Meeting	Thur. Sep. 8 7:00 pm	Brookdale Hennepin Area Library 6125 Shingle Creek Pkwy., Brooklyn Ctr.	Members welcome, Note 1.
Mac Computer Art & Design Group	Mon. Sep. 12 6:45 pm	Mpls. College of Art and Design 133 East 25th Street, Room 325	Note 7 or call 870-3268 for most current meetng info (recording).
MicroSoft® Works™ S.I.G.	Tues. Sep.13 7:00pm	Edina Library—50th and Hwy 100	Note 13
Languages/Technical S.I.G.	Wed.	Recess—no meeting until further notice. Call for information.	Note 5
The Smalltalk Group	Wed. Sep. 14 7:00 pm	250 S. Milton St. St. Paul, MN	Programming in Smalltalk Note 10
Fourth Dimension™ Group	Mon. Sep. 19 7:00pm	Hennepin County Library, Southdale Branch, 70th & Xerxes, Edina, MN	Note 2 Small Meeting Room, 2nd Floor
HyperCard™ Group	Mon. Sep. 19 7:00 pm	Hagen Office Equipment 801 W. 77-1/2 St., Richfield, MN	Note 4
MacCAD/E User Group	Tues. Sep. 20 7:00 pm.	Heath/Zenith Computers Shady Oak Road, Hopkins, MN	Note 8
Beginning Macintosh™ Programmer	Tues. Sep. 20 7:00 pm.	Hennepin County Library, Southdale Branch, 70th & Xerxes, Edina, MN	Note 15 Small Conf. Room, 2nd Floor
Apple II Users	Wed. Sep. 21 7:30 pm	St. Louis Park Sr. High School	Educational Software, Note 11
AppleWorks© S.I.G.	Thur. Sep. 22 7:00 pm	Murray Junior High School 2200 Buford, St. Paul, MN	ProDOS™ and the AppleWorks™ User, Note 1
Mac Novice User Group	Mon. Sep. 26 7:00 pm	Highland Branch Library 1974 Ford Parkway, St. Paul, MN	Note 9
Northwest Branch	Tues. Sep. 27 7:00 pm.	Rockford Road Library 6401 42nd Av. N., Crystal, MN	Note 6
Apple IIGS S.I.G.	Wed. Sep. 28 7:30 pm	1st Minnesota Bank 31-9th Ave. S., Hopkins, MN	Note 12
Mac Desktop Publishing S.I.G. (New Group)	Wed. Sep. 28 7:00 pm	First Tech Computer 2640 Hennepin Ave., Minneapolis, MN	Note 3
Mac Users	Thur. Oct. 6	Hennepin County Library, Southdale Br.	Guy Kawasaki Returns! Notes 14
Mac Computer Art & Design	Mon. Oct. 10	Mpls College of Art and Design	Note 7
Microsoft® Works™ S.I.G.	Tues. Oct. 11	Edina Library—50th and Hwy 100	Note 13
Languages/Technical S.I.G.	Wed.	Meeting cancelled—watch for notice	Note 5
The Smalltalk Group	Wed. Oct. 12	250 S. Milton, St. Paul	Note 10
Board Meeting	Thur. Oct. 13	Brookdale Hennepin Area Library	Members welcome, Note 1
Fourth Dimension™ Group	Mon. Oct. 17	Hennepin County Library, Southdale Br.	Note 2
HyperCard™ Group	Mon. Oct. 17	Summer Recess—No Meeting	Note 4
MacCAD/E User Group	Tues. Oct. 18	Heath/Zenith Computers, Hopkins	Note 8
Beg. Macintosh™ Programmer	Tues. Oct. 18	Hennepin County Library, Southdale Br.	Note 15
Apple II Users	Wed. Oct. 19	St. Louis Park Sr. High School	Note 11
Mac Novice User Group	Mon. Oct. 24	St. Paul Highland Branch Library	Note 9
Northwest Branch	Tues. Oct. 25	Rockford Road Library, Crystal	Note 6
Apple IIGS S.I.G.	Wed. Oct. 26	1st Minnesota Bank, Hopkins	Note 12
Mac Desktop Publishing S.I.G.	Wed. Oct. 26	First Tech Computer, 2640 Hennepin Ave.	Note 3
AppleWorks© S.I.G.	Thur. Oct. 27	Murray Jr. High, 2200 Buford, St. Paul	ProDOS™, Note 1

Notes:

- | | | |
|---|----------------------------------|---------------------------------|
| 1. Dick Marchiafava, Pres.572-9305 | 6. Jere Kauffman535-6745 | 11. Tom Ostertag488-9979 |
| 2. Ian Abel824-8602 | 7. Joy Kopp440-5436 | 12. Dick Peterson473-5846 |
| 3. Charles Bjorgen633-8850 | 8. Bill Langer937-9240 | 13. Ed Spitler432-0103 |
| 4. Mike Carlson866-3441 | 9. Tom Lufkin698-6523 | 14. David Stovall474-8015 |
| 5. Wesley Johnson636-1826 | 10. Martin McClure227-9348 | 15. Tom Vind473-0455 |

Coordinators - Please Call John Hansen (890-3769) by the 1st Friday in order to have your meeting listed correctly!

Board Members:
Officers

President	<i>Dick Marchiafava</i> 7099 N. E. Hickory Drive Fridley, MN 55432	572-9305
Past-President	<i>Ann Bell</i> 8325 39th Avenue N., New Hope, MN 55427	544-4505
Vice-President	<i>William Langer</i> 14160 Green View Court Eden Prairie, MN 55344	937-9240
Secretary	<i>Ed Spittler</i> P.O. Box 24476 Apple Valley, MN 55124	432--0103
Treasurer	<i>J. Edward Wheeler</i> P.O. Box 796 Hopkins, MN 55343	881-5928

Directors

Publications	Dan Buchler	890-5051
Software	Tom Gates	789-1713
Technical	John Hook	435-6281
SIG: Macs	David Stovall	474-8015
SIG: Apples	Tom Ostertag	488-9979
Membership	Ann Charity	935-4845

Coordinators

Beginners' Consultant	Earl Benser	884-2148
Shows & Conventions	<i>(Your Name Here?)</i>	
Northwest Branch	Jere Kauffman	535-6745

🍏 Apple II Users	Tom Ostertag	488-9979
🍏 Apple IIGS	Dick Peterson	473-5846
🍏 AppleWorks	Dick Marchiafava	572-9305
🍏 Beginner's Basic	Tom Alexander	698-8633
🍏 Languages/Tech	Wesley Johnson	636-1826
🍏 Tech. Adviser (hdwre)	Roger Flint	771-2868

📁 Mac Users	David Stovall Mike Carlson	474-8015 866-3441
📁 Excel	M. Nightingale	545-9380
📁 Beginning Prog.	Tom Vind	473-0455
📁 HyperCard	Mike Carlson	866-3441
📁 CAD & Engineering	Bill Langer	937-9240
📁 4th Dimension Prog	Ian Able	824-8602
📁 Novice	Tom Lufkin	698-6523
📁 Smalltalk	Martin McClure	227-9348
📁 DeskTop Publishing	Charles Bjorgen	633-8850
📁 MicroSoft Works	Ed Spittler	432-0103

Software Director's Staff

Apple // DOM Editor	Tom Gates	789-1713
Eamon	Dave Nordvall	724-9174
MaceDOM Editor/Prod	Joe Carroll	938-4028
CP/M	<i>Open</i>	

Liaison Contacts (Contact with non-Mini'app'les SIGs)

- Genealogy	Jules Goldstein	690-4447
- Medical	Stewart Haight	644-1838
- CP/M	Jim Rosenow	(414) 261-2536

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Questions — Please direct questions to an appropriate board member. Technical questions should be directed to the Technical Director.

Membership — Send applications for membership directly to the Membership Coordinator: Ann Charity 935-4845
 PO Box 796
 Hopkins, MN, 55343

Current membership dues are \$20 for the first year and \$15 thereafter. All members receive a subscription to the newsletter and all club benefits. New members receive a special package of member lists and software catalogs.

eDOMs	At Meetings	Mail Order
Members:	5 1/4" eDOMs	\$3.00
	3 1/2" Apple/MaceDOMs	\$5.00
Non-Members:	5 1/4" eDOMs	\$7.50
	3 1/2" Apple/MaceDOMs	\$10.00
		\$4.00
		\$6.00
		\$8.50
		\$11.00

Send orders to Mini'app'les at PO Box 796, Hopkins, MN 55343, attention eDOM Sales or MaceDOM Sales.

Dealers — Mini'app'les does not endorse specific dealers. The club promotes distribution of information which may help members identify best buys and service. The club itself does not participate in bulk purchases of media, software, hardware and publications. Members may organize such activities on behalf of other members.

Newsletter Contributions — Please send contributions on Mac 3 1/2" disks, or via telecommunications, directly to the Newsletter Editor. Contributions on 5 1/4" disks should be sent to the club PO Box, and marked: "Newsletter Submission".

Deadline for publication is the 1st day 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.

Meeting Dates — Please phone calendar announcements to John Hansen 890-3769.

Mini'app'les Mini'Info Exch BBS — Club members may utilize the club's BBS: Telephone No. 831-6235

Advertising — Direct all advertising inquiries to the club's Advertising Coordinator: Eric Holterman 612-822-8528
 3608 Blaisdell Ave. S.
 Minneapolis, MN 55409

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 Dave Brown
 Comp./Layout Joan Kistner, Bob Lowe










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 GENie: EFHolterman
 TCCN: Box 431

E-mail

 AppleLink
 UG0012
 CompuServe
 73537,463
 GENie: DBuchler

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Membership Application and Renewal Form 09/88

Name: _____

Address: _____

City: _____

State: _____

ZIP: _____

Home Phone: (_____) _____ - _____

Work Phone: (_____) _____ - _____

New Member () or Renewal ()

Spouse's name: _____

Children's names: _____
(if interested in computers) _____

Sponsored by: _____

I own or use a:

Mac+ () SE () MacII ()
Apple //or //+or //e () //GS() //c ()
Other ()

Special Interests - Check all that apply.




Programming () Spreadsheets ()
Business () DT Publishing ()
Education () Novice ()

Send to: Membership Coord

Ann Charity
PO Box 796
Hopkins, MN 55343
Club Dues: \$15/yr + \$5 application fee.

The Fine Print

The Mini'app'les newsletter is an independent publication not affiliated or otherwise associated with or sponsored or sanctioned by Apple Computer, Inc. or any other computer manufacturer. The opinions, statements, positions, and views stated herein are those of the author(s) or publisher and are not intended to be the opinions, statements, positions or views of Apple Computer Inc., or any other computer manufacturer. Apple®, the Apple® logo, Apple IIGS®, AppleTalk®, AppleWorks®, Macintosh®, ImageWriter®, LaserWriter®, are registered trademarks of Apple Computer, Inc. LaserShare™, Finder™, MultiFinder™ and HyperCard™ are trademarks of Apple Computer, Inc. PostScript® is a registered trademark of Adobe Inc. Times® and Helvetica® are registered trademarks of LinoType Co.

   System Finder HyperCard 1.2	<p>HyperCard 1.2.1 is now available!</p>
<p>✓ System Updates for Macintosh ✓ ProDOS and DOS 3.3 systems for Apple II/IIGS</p>	

**Apple II
Users
Sept 21**

St Louis Park High
**Educational
Software**

**MacUsers
Sept 1**

Southdale Library
**Spacemaster
3D Sketching**

**MacUsers
Oct 6**

Guy Kawasaki Returns!

Mini'app'les BBS — 831-6235 (New Software)

October Mini'app'les Newsletter goes to press Sept. 10.
Please observe minimum one week leadtime.

Mini'app'les 1988 Membership Drive

The Club is looking for: New members
Cooperative Dealers and Schools
Renewals and Referrals

With your help and enthusiasm, we are embarking on a concentrated effort to build and strengthen member resources within Mini'app'les to GROW IN 1988!

Add YOUR helping hand!

Sponsoring Members:

Your name will be listed here, each time that you are listed as the sponsor of a new member. Here's the latest honored folks... Congrats!

Dick Marchlafa
Joy Kopp
Bill Langer

New Members this month:

First—Last	Zip	Phone
Gene Patrin	55013	612-462-2141
Timothy N. Heasley	55013	(none given)
Dave Young	55014	612-781-2332
Steven Axdal	55016	612-853-5830
Julie & Tony Pecoraro	55044	612-924-8523
Wallace J. Sapp, Jr.	55075	612-944-8559
Paul Spilseth	55082	612-439-2215
Mary E. Kraft	55105	(none given)
Henry C. Brom	55303	(none given)
Cindy Sandstrom	55344	(none given)
Bradley Molitor	55369	(none given)
Barbara Lerschen	55372	612-553-4781
Michael Ferrier	55406	612-332-8300
Thomas Rossin	55412	612-330-1270
Katsuhiko Momoi	55413	(none given)
Doug S. Roerden	55416	612-863-5888
Lael Eginton	55422	(none given)
Dick Rentsch	55423	(none given)
Mark Dantuono	55425	612-853-5414
Todd Gardner	55435	612-546-3481
Kwok Ng	55443	612-633-0735
Kelly D. Breit	55447	612-379-3950
Ron Strand	56001	(none given)

Cooperating Schools:

Brooklyn Park VoTech
900 Brooklyn Boulevard
Brooklyn Park, MN 55445

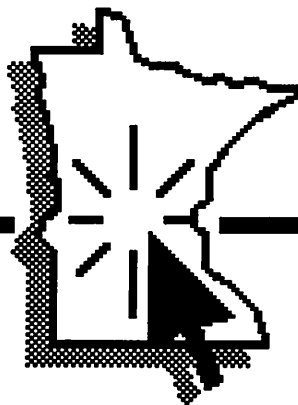
Hennepin Technical Institute
South Campus
9200 Flying Cloud Rd.
Eden Prairie, MN 55344

Anoka Technical Institute
1355 West Main
Anoka, MN 55303

Dakota County Technical Institute
145th Street East
Rosemont, MN 55068

Bloomington Comm. Ed. Service
8900 Portland Ave.
Bloomington, MN 55420

Kennedy High School
9201 Nicollet Ave. So.
Bloomington, MN 55420



**A Challenging Goal:
To have 1,988 members
by Dec. 31, 1988**

Cooperating Businesses:

Hagen Office Equipment
801 West 77-1/2 Street
Richfield, MN 55423 866-3441

First Tech
2640 Hennepin Ave. South
Minneapolis, MN 55408 377-9300

Computerland-Hopkins
11319 Highway 7
Hopkins, MN 55343 933-8822

Heath-Zenith - Hopkins
101 Shady Oak Road
Hopkins, MN 55343 938-6371

Computer Pavilion
Pavillon Place - 1655 West County Rd B2
Roseville, MN 55113 631-2766

Computerland
2471 Fairview Avenue North
Roseville, MN 55113 636-2366

IND Corp
1620 County Road C
Roseville, MN 55113

Hutch Computer Industries (H.C.I.)
8017 Glen Lane
Eden Prairie, MN 55344 944-1356

Businessland
7400 France Avenue
Edina, MN 55435 893-1343

Computer Applications
7101 France Avenue
Edina, MN 55435 920-1154

Computerland
7025 France Avenue
Edina, MN 55435 920-6100

Moore Business Forms
3650 Hazelton Road
Edina, MN 55435 929-4334

Twin Cities Computer Network
75 South 5th Street — Suite M-100
Minneapolis, MN 55402 (modem) 349-6200

The GIZMODE Data Bank
3519 West 50th St.
Mpls, MN 55410 (modem) 929-6879

Announcements

AppleWorks S.I.G. Meeting Schedule & Announcements

by Dick Marchiafava

Despite hot weather, an interested group of people attended the meeting about templates. I believe those attending came away with an excellent idea of what templates are and how to use them.

Most members of the SIG Committee demonstrated 3-4 templates for AppleWorks from various sources. Most of the templates used are public domain.

New Fall Meeting Location

AppleWorks SIG meetings will be at a new location beginning with the September meeting. We will meet at Murray Jr. High School, 2200 Buford Avenue, St. Paul. Parking is at the north side of the school, on Buford. Enter the main door, inquire for the meeting room location.

Murray Jr. Hi is centrally located a few blocks east of Highway 280, near Como Avenue which is near the border of Minneapolis and St. Paul. See the map for directions.

September 22nd: ProDOS and the AppleWorks user; AppleWorks does an excellent job shielding a user from the operating system. However, when users have to use ProDOS pathnames from within AppleWorks, they are thrown upon their own resources. Using the experience gained at the last presentation of this topic, we will see if we can de-mystify ProDOS as it effects AppleWorks users.

October 27th: Word Processing; basic, intermediate, advanced.

November 17th: Trouble Shooting in AppleWorks.

December 22nd: Data Base; basic, intermediate, advanced.

Any corrections to the published meeting calendar will be posted on the Mini'app'les Bulletin Board.

Meetings are monthly, on the 4th Thursday, unless there is a conflict with a major holiday. In that case, the meeting will be the 3rd Thursday of the month. Call 572-9305 if you need information about meetings.

Dick



Desktop Publishing S.I.G. Growth continues

by Charles Bjorgen

The Mac Desktop Publishing Special Interest Group continued to gain strength after four meetings that saw the group grow from about 15 members to a July meeting high of 30.

Since its organizational meeting in April, the group has had discussions and demonstrations on newsletter production, text conversion from other computer systems, a roundup of page layout programs and a lively round table on dealing with printers and other outside services. Interest in the last subject showed it will be a continuing topic in our meetings. Local programmer *Jon Wind*, creator of *Add/Strip*, also demonstrated his program at the text conversion meeting.

The August meeting will offer a session on

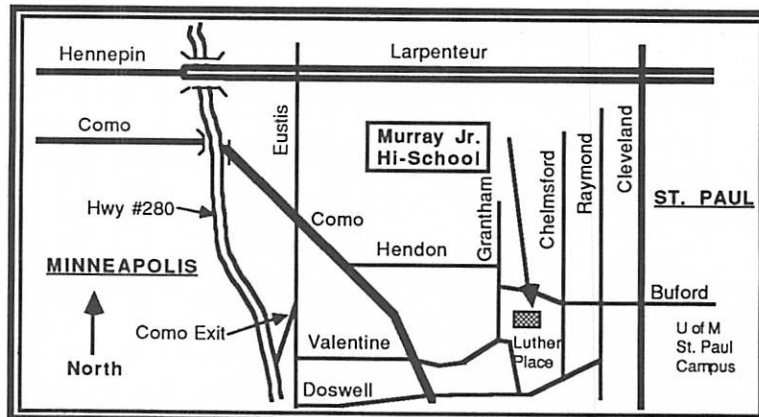
newsletter design by *Nathan Everett*, a desktop publishing trainer for *Corporate Publishing*. Plans for future meetings are for demonstrations of *Adobe Illustrator 88*, comparisons of other graphics programs and in general, discussions of topics of interest to desktop publishers.

The group is composed of a variety of desktop publishers, some of whom are operating full-time DTP businesses. Others are part-timers or folks who have suddenly had DTP equipment thrust on them in their work places and need information right away. Beginners are welcome and are encouraged to bring their questions to our meetings, which open with a question and answer session.

Regular monthly meetings are held at *First Tech Computers*, 2640 Hennepin Av., on the fourth Wed. of each month, 7-9 p.m. All Mini'app'les members are welcome.



At an early summer meeting of the Desktop Publishing SIG, Don Picard, owner of Creative Ink, Burnsville, reconstructed a newsletter project for the members.



Location Map for AppleWorks Meetings, fall of 1988.

The AppleWorks Advisor

A Column For Users Of AppleWorks

by Dick Marchiafava

The July column has a patch to increase the number of files which AppleWorks can handle in a sub-directory. Readers pointed out to me that some punctuation was missing from one of the lines of program code as it appears in the newsletter. Indeed, a colon, a period and a comma are missing from the first part of the patch. Here are the lines as they should have appeared:

```
POKE 768,0 : POKE 769,112 :
POKE 770,0 : POKE 771,0 :
POKE 772,224 : POKE 773,122
(press RETURN)
```

```
BSAVE SEG.M1, T$00, A$300,
L6, B$14286
```

That is not the only place punctuation was missing. I wonder if the mice thought they were sunflower seeds?



[Squeek, squeek, yum, yum, yum. Ed.]

AppleWorks 2.1

Claris has version 2.1 of AppleWorks in hand. This version fixes bugs with using the @ character in control strings for printers, corrects some problems with file saving and fixes "other" bugs.

Beagle Buddy Support

As a new member of the Beagle TimeOut support team, I have received my Beagle Buddy package. Now I have the most recent versions of all the TimeOut programs. As part of this support team, I will make TimeOut updates available to all buyers of these products. Updates are free in person, \$2 per program by mail. To get updates, the user must present the original program disks.

As part of the Beagle Buddy program, I received pre-release copies of 3 new TimeOut programs expected to ship in August. The programs which I have in advance of release are Thesaurus, DeskTools II and PowerPack.

Update FileMaster

The update to FileMaster eliminates the need to return to AppleWorks by Quitting from the FileMaster menu. This was the only TimeOut accessory program which had this exit

method. Now, returning to AppleWorks from FileMaster is accomplished with ESCAPE, the same as the other TO functions. This is consistent with the AppleWorks interface.

TimeOut Thesaurus

As a person who writes, I can say that is very handy having Thesaurus available with a few keystrokes. It is super easy to look for synonyms for words which have been overused, sound awkward or are not descriptive enough. When installed in a RAM drive or operating from memory, this program is incredibly fast. If a replacement word is selected, the replacement is automatic and in the same case as the original word.

To offer as many choices as possible, Thesaurus will perform lookups by adding or removing suffixes. When a list of synonyms is presented, choices will include alternative words listed according to the parts of speech that could be applicable. Thesaurus will also offer synonyms for a synonym of called upon to do so.

If the cursor is left on a blank area of the document in work, a word can be entered from the keyboard to find synonyms for.

Thesaurus is a winner!

DeskTools II

This second collection of desk tools has many new accessories that I find most useful.

Area Codes

This accessory will supply area codes for major cities in the US and Canada. If an area code is entered, a list of mayor cities is produced. I do not know how changes or additions would be handled with this accessory.

Calculator+

This new desktop tool is a major addition to the list of Desk Tools available. Documentation for Calculator+ takes up 28 pages of the manual. This desk tool may be as advanced as the early Calculator is basic.

"Calculator+ is a multi-functioned RPN (Reverse Polish Notation) calculator which includes basic math, scientific and financial functions." I cannot say it better. So far, anyone I have described this desk tool to who asked if it could do a particular thing, has received a yes reply.

A programmable calculator, this tool can do trig, log, present and future values, has 14 built-in constants, will do cube root and probably many things I do not understand. "A number can be imported from the Spreadsheet and results can be entered into your applications at the present cursor position."

I do not need Calculator+. I will get someone who does to write it up.

Clipboard Viewer

This handy tool lets the user see the contents of the clipboard and permits editing its contents by selectively deleting information.

DiracTree

Displays a list of all files on a disk showing the location of files in the directory structure. The listing can be printed. DiracTree offers choices of where to look for files and the kind of files to display.

This tool can make it easier to find files that one cannot recall the location of. Perhaps it will make the transition to ProDOS pathnames easier for users, too.

Disk Tester

A handy utility which will verify data disks while in AppleWorks. Disk Tester will do a Read or Write/Read test on the disk in a currently selected data disk location. Caution! The Write/Read option should only be used on a disk that contains no useful data, as it probably overwrites existing data. This utility is a handy way to test and verify disks for users who do not use FileMaster, Copy II+ or Apple System Utilities disk management programs.

File Search

With this desk tool one can search for a specified sequence of characters in a file, or files, while they are on disk. There is no need to load the files to perform a search. I find that I can quickly locate a file which contains a selected word or phrase that is up to 20 characters long. Search keys can be case sensitive and for a whole or partial word.

When a match is found, the user can choose to Continue search, Edit this file, Skip to next file or Quit search. If Edit file is selected, the file being searched is automatically loaded to the desktop. When a search is run to completion, a report indicating how many files were searched and the number of matches that were found is presented.

I was able to search a 117K data base file and locate 9 matches in less time than it would take to load the file. This file contains catalog information for 66 disks of AppleWorks files. From the screen, I was able to get the volume names of the disks indicated from the data base records.

Very handy for finding which files contain information when you can recall a key word or phrase. Up to 12 files can be selected for a File Search operation.

Measurements

A conversion utility for length, volume, weight and time measurements. Conversions are accurate to the nearest thousandth. The measurement that the cursor is on can be transferred to a document by selecting the "Insert" option on the Measurements menu.

Printer Manager

This desk tool creates printer drivers which allows the user direct control of printers by sending control codes. I have not yet had the time to work with Printer Manager. When properly configured, it should give the user better control over printers and allow the use of features not normally accessible. Printers difficult to configure with the AppleWorks Custom Printer option should be easier with Printer Manager. More about this another time.

Screen Out

This accessory is selected from the TimeOut menu. A macro can be used to activate it, also. Screen Out will, when selected, blank the screen to protect the monitor screen or to conceal confidential information. If desired, a security code can be used to restore the screen. Otherwise, any keypress will restore the screen.

If a security code is used, the proper code must be entered to restore the screen. If the correct code is not available, a Reset may restore the screen with the possible loss of the active file, or a reboot will be necessary. This will cause the loss of all files on the desktop.

Screen Printer

This handy accessory will let the user select a portion of the AppleWorks screen to be printed to the Open-Apple H printer. The desired information is selected by designating a block by marking the upper left corner and extending the highlighted information to the lower right corner. For example; it is possible to print the menu information from an AppleWorks screen without all the other information that is on screen.

GOTO 11

Mini'app'les Computer Users Group Minutes of the Board Meeting June 9, 1988

Board Members in attendance: Dick Marchiafava, Ann Bell, Ed Spitler, J.E. Wheeler, Dan Buchler, Tom Gates, John Hook, Tom Ostertag, Ann Charity. Also present: Steve George, Dick Peterson and Bill Arden.

Minutes of the May 1988 Board meeting were approved and accepted as amended.

Treasurer's Report

J. Wheeler gave the following report for the period of May 1-31, 1988:
(Report is at end of Minutes. Ed.)

A motion was made by Ann Bell, and seconded, to accept the treasurer's report. Discussion: Dick Marchiafava noted that there were five major expenses during 1988 and that the equipment purchases should be considered as assets. Therefore, expenditures that are made should not be considered as losses. Motion carried.

Old Business

AppleLink

Dan Buchler and Tom Gates have discussed sharing of AppleLink. Tom indicates that he has been on AppleLink.

Budget Meeting next month

Dick Marchiafava noted that all board members or directors with budgets need to submit new ones for the next meeting.

eDOM

A possible difference in eDOM sales vs inventory purchases had been reported by the Treasurer. Tom Gates made an investigation and discovered no irregularities. Tom has implemented control procedures to track eDOM costs vs sales.

New Business

Liability Insurance

Dick Marchiafava indicated that St. Louis Park wants more liability insurance in effect for the meetings that we hold there. We need \$600,000 which means that there will be a premium increase of approximately 17%. A motion was made by Ann Bell to approve the premium increase assuming we were given an accurate quote. Motion carried.

MicroSoft Works SIG

A motion was made by Ed Spitler to approve the MicroSoft Works Special Interest Group. Ed described the first meeting that took place on June 13 and felt that there was sufficient interest to warrant continued meetings. Motion carried.

Overhead Projector

A motion was made by Ed Spitler to rent an overhead projector at no more than \$15.00 per evening for July and August MicroSoft Works meetings. Discussion: Ed Spitler indicated that the Edina Library does not provide equipment of any kind, as does the Hennepin County Library and other facilities we normally use for meetings. Ed plans to find other facilities where equipment is available after the July-August meetings. Motion carried.

GOTO 11

A SPECIAL INVITATION TO MINI' APP'LES


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Evolution of the Apple II

(Part 1, The First Generation: II, II Plus, and DOS 3.3)

by Stephen Brown

The Apple II has changed a great deal since its introduction. It has evolved from what would now be considered a possibly archaic 8-bit machine, restricted to nothing more than a programmer's or hardware hacker's toy. In fairness, it was much, much more than this, which is why the Apple II is still around today. In contrast, today's Apple II... the Apple IIs... is an advanced and highly refined personal 16-bit computer, used for word processing, database management, teaching, home and laboratory instrumentation control, and thousands of other diverse applications.

Evolution of the Apple II over the last ten years has been consciously aimed at maximizing compatibility with previous models, but on the other hand, not allowing decisions in the past from limiting future potential. In this series of articles, I am going to take a shortened, but detailed look at some of the Apple II's of the past in terms of their implementation and features, to see how they have paved the way for ambitious and bold machines like the IIs and Macintosh. If not for the success of the Apple II, research and development for these newer products would not have been possible, at least not from Apple.

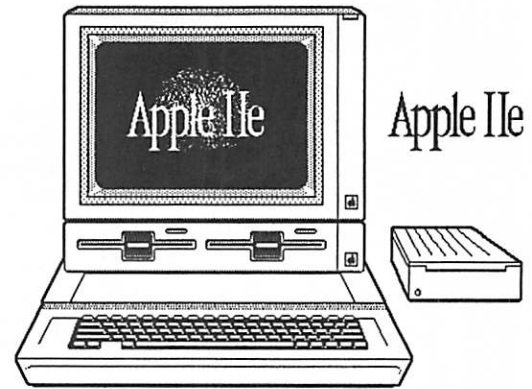
The original Apple II was truly elegant in its hardware design and implementation. It accomplished a great deal with very little. For example, today it is commonplace that a computer of any degree of complexity includes at least one custom-manufactured chip in its design. This wasn't so in the days of the original Apple II. It was designed around approximately 53 IC's (Integrated Circuits) of the LS-TTL family, 4 IC's of the Linear family, up to 3 sets of 8 dynamic Random Access Memory (d-RAM) IC's, 4 Read Only Memory (ROM) IC's (but space for 6), a Character Generator ROM, and a type 6502 microprocessor. All these chips (with the exception of the ROMs), were standard, inexpensive (under \$15), off-the-shelf units. Due to the price of memory at the time, and the number of memory IC's required, RAM was a major contributor to the computer's price. In fact, someone with a bit of technical background could often repair their original Apple II by themselves, because all the parts were readily obtainable, and the theory of operation was largely straightforward. On the negative side though, the large number of IC's was said to decrease the machine's reliability.

To serve its market, the original Apple II of 1977 had to be a "Jack of all trades, master of none" computer. Since it had little competition in function and in price range, it virtually created the Personal Computer market. It couldn't do any task particularly well. However, it could do a bit of everything that several, more specialized computers could do. In this respect, it was extremely flexible, but not especially powerful in such things as storing and manipulating large amounts of data, in being able to produce impressive graphics and text displays, or in producing lifelike sounds. Nevertheless, Apple's only computer proved to be more than adequate for many applications; enough to make it popular among hobbyists who could afford it. The basic original Apple II system with 8K ROM was \$1298 US (4K RAM) to \$2638 US (48K RAM) in 1977 (Byte, Vol.2, No.6, p.17)!

Programs and data resided in memory, but since dynamic RAM (memory) was very expensive in the seventies, the machine was usually equipped with between 4K and 48K of memory. Memory chip price quotations from the time show that people paid the same for a 16K memory chip (in 1977 dollars) that they pay today for a 256K memory chip, which explains why machines were sold with so little memory [Goodness! And we complain about RAM costs today at \$500 for a megabyte! Ed.]. As a result, programmers were forced to write their programs to take up as little space as possible, and as time went on, this became a more troublesome limitation.

Only one text mode was possible on the original Apple II, which was a display of 40 columns of normal, inverse, or flashing upper-case characters. (These were the only bit patterns contained in the Character Generator ROM.) Entry of these characters was possible through a teletype-style keyboard of respectable quality and feel. Judging by the construction of the keyboard it was clear that the Apple II was intended for serious use.

To augment the text display, the original Apple II supported graphics display. This was unusual for computers of the time. There were basically two graphics modes: Low Resolution (LoRes) and High Resolution (HiRes). The terms "low" and "high" were descriptive at the time, but in the light of subsequent improvements, they are almost silly. LoRes graphics supported a grid of 40x48 pixels (or picture elements) in 16 colours on the screen,



with or without a 4-line text "window" at the bottom of the screen. HiRes graphics supported 280x192 pixels (in black & white) or 140x192 pixels (initially 4, then 6 colours with restrictions) on the screen, again with or without a 4-line text window. Technically, 560 discrete horizontal positions are accessible on the HiRes screen, but the resolution is still limited to 280 horizontal dots.

A major nuisance was that the dots were not arranged in memory the same way that they were arranged on the screen. Thus, two adjacent dots on the screen might be hundreds of bytes apart in screen memory. The reason for this was to simplify the video hardware. Of course, this caused programs which manipulate the HiRes screen to be more complicated. Anyone who has dabbled in programming for the HiRes screen knows that it's a bit of a dog.

The personality of a computer is stored in its ROM, and the original Apple II had 8K of ROM. The ROM contained a set of programs, making up a BASIC Interpreter (language) called Integer BASIC, a Machine Language Monitor, a "Mini-Assembler" (see "The Apple Monitor" and "Mini-Assembler Technical Note", Maple Orchard Vol.8, No.2), and SWEET-16, a 16-bit assembler-interpreter. These programmer's tools allowed programs to be easily written and tested with virtually no other software. This facility made it possible for software to be written by non-programmers, and spawned magazines and clubs whose goal was to make better use of their Apple II's by exchanging public domain software they had written.

Like memory, disk drives were very costly in the seventies. To keep costs down, the original Apple II had no built-in method for storing programs. Thus it was equipped with tape "ports", that could be used in conjunction with a standard cassette recorder. It's hard to believe that people used to load and save their programs on cassettes, but it's true. It was a slow and painful process, because the playback level to load a program is quite critical. It's something everyone has to try. Once.

However, in spite of its generality, the Apple II had one thing over and above all its resident features: expandability with an "open architecture", in other words, other devices could be added to the machine. This was facilitated by a row of eight connectors (or "slots") into which devices could be plugged, and have access to all the critical electronic signals in the machine. The slots were numbered 0 through 7, with the numbers 1 through 7 being general purpose slots, and number 0 being a "special" one, usually reserved for memory expansion. Without the slots, the Apple II could never have been made to do more than the designers intended, and the machine would have been doomed to obscurity.

One of the first such extra devices was the interface for the disk drive, called the "Disk II Controller". It was called this because the disk drive was called a Disk II. The presence of a disk drive greatly increased the level of performance that was possible from the machine, and resulted in a veritable flood of new applications. The Disk II was a single-sided, single-density drive, ultimately storing 140K of information (143,360 characters), and was the first substantive step at making the Apple II a machine for everyone. This was accompanied by a copy of a program called DOS (Disk Operating System) to control the flow of data between the Apple II and the Disk II.

In June of 1978, the first version of DOS, DOS 3, was released. It stored data on the disk organized in 35 tracks, with 13 sectors-per-

Steven Brown's Apple History will run in installments. Part 2 will be included in the October Newsletter.

track, 256 bytes per sector, for a total of 113.75K per disk. By August 1980, a final and improved version, DOS 3.3, was released. It organized data in the more familiar 16 sectors per track, for a total of 140K per disk. This change, from 13 to 16 sectors required a ROM upgrade on the Disk II Controller.

Around 1979, when DOS was still in its infancy, Apple upgraded the ROMs on the motherboard from 8K to 12K (6 ROMs), and renamed the machine the "Apple II Plus". Note that the subtle motherboard changes from revisions 0 to 7 to RFC have nothing to do with the name of the machine; the name was based on the ROM upgrade. The original ("one piece") keyboard was also internally redesigned (now called the "two piece keyboard") in 1981 so that it used a readily obtainable keyboard encoder IC, instead of an obsolete one.

GOTO 10

Evolution of the Apple II, Part 1:

A CounterPoint

by Tom Edwards

Reading through Mr. Brown's history of the Apple II, a few comments caught my eye... actually, I read them several times, as I found his story interesting. The II holds a special niche in my memories, for it provided computer initiation for our family... something echoed in Mr. Brown's article. Though we now have (... and favor! Gosh! Could you tell?) the Macintosh series of Apple computers, we still have a few II's scattered about the family. Lest you think that Mr. Brown has the only position on the II, I offer herewith a few comments to expand on, and counterpoint (without malice), those of Mr. Brown.

- Remember, Mr. Brown is a Canadian. Though early Apple computers were not "cheap" by anyone's standards, in Canada, they were (still are, I guess) much more costly than in the USA, due to import tariffs. Canadian prices may have been prohibitive for most Canadian home users, but in the U.S., this is what got the machine started.
- History seems to confirm that the II was indeed preceeded by a I.
- Apple innovations included the packaging of major components into a single box, ability to use an inexpensive TV as a monitor, programability from a keyboard and a paddle port for games (or whatever).
- Graphics on the first Apples were considered rather hi-tech at the time. The 40 column display, though not "professional" by standards today, was designed to be useable with an ordinary home TV, providing text and color (a rather advanced feature, especially for a small-package computer at the time) without the need for an additional investment in a separate monitor.
- Lots of folks question the "consistency" of the Apple ROM revisions. There are still incompatibilities between various revisions.
- Applesoft (Floating Point BASIC) was available first as a card in slot 0. When Applesoft was put on the motherboard... changing the machine to the Apple II Plus... Integer was made available on a card. Later, the "missing" language was made available by loading in from the disk.
- Apple dealers often had a chuckle over the fact that there were more Apple CP/M machines than any other brand!
- AppleWriter II was preceeded by earlier versions. Even with the "funny" keyboard,

word processing was important to the Apple development as a productivity machine.

• Although Mr. Brown's statement about EPROMs might sound innocent enough, copying the contents of Apple's ROMs into EPROMs was, and is, highly illegal. Apple did, and still does, make a big issue of this practice and pursued the practitioners of this approach with a vengeance. The most flagrant violators seemed to be from Pacific Rim countries, making machines with fruity names like "Pineapple" or "Orange." In the latter stages of this legal flap, "clone" computers were often shipped without the ROM installed, as a ploy to slide around the copyright laws.

Franklin was the only manufacturer I am aware of that seemed to be bent on making a "work-alike", and even their honest efforts felt the rath of Apple's legal-eagles. Apple continues to be successful in suppressing flagrant rip-offs of their computers. However, the inability of anyone outside of Apple to market a true work-alike for Apple's newest machines (with the availability of the Laser 128 noted), does place Apple in a different situation than ibm. Mr. Brown's conclusions about the market worth of clones does not appear to cut much ice with ibm these days, either. The "copycats" had pretty free rein with ibm PCs prior to the advent of the PS/2. Now, ibm seems to be taking a viewpoint a little closer to the Apple position in considering clones as something that must be at least controlled, if not eliminated.

• While big business fights the clone wars, Joe Average computer user battles his pocket-book. Mr. Brown's contention that lack of competition keeps computer prices high is certainly not without merit. The phenomenal success of Apple... in a business sense... is hard to dispute. Yet the question will always go begging, "What if (Apple) computer prices were lower?" Whether by the pressure of competition or as a marketing strategy, lower prices would likely result in more unit sales. More unit sales (of a given brand) lead to higher market share. Higher market share leads to ???, better programs, lower costs, further development, new machines??? Take your pick and speculate!

If one wishes to fantasize, this is certainly the makings of an endless parade of delicious possibilities.

More bytes later...
TWE



Evolution, part 1, concluded

The new Apple II Plus' ROMs had some major additions, but some major deletions too. The Monitor ROM was changed to what was called the Autostart ROM, and Integer BASIC was replaced by AppleSoft BASIC. The Autostart ROM differs in that it scans expansion slots 1 through 7 (in descending order) for a Disk II Controller, and if it finds one, attempts to boot a disk in drive 1. If no Disk II Controller is found, the Autostart ROM starts AppleSoft BASIC (recognized by the familiar "J" prompt). AppleSoft BASIC, unlike Integer, supports floating decimal point math (ie. can handle fractions) and could handle numbers less than -32767 and greater than +32767, and commands to plot and draw on the HiRes screen. But for everything, there is a price, and the price of this was getting rid of the Mini-Assembler and SWEET-16. However, by this time, there were already a number of commercially available disk-based assemblers on the market which were far more powerful than the Mini-Assembler.

The next major increase in power came with the introduction of another peripheral called a "16K Card". This device could only be used in slot 0 and shared the same address space as the ROMs (\$D000 to \$FFFF). By using a technique called "bank switching", the motherboard ROMs could be disabled, and "banks" (segments) of the 16K card could be enabled in its place. If another language was loaded into the 16K card, an Apple II Plus so equipped could speak a language other than AppleSoft or a DOS other than DOS 3.3. This was exactly what was done, and UCSD-Pascal, Integer BASIC, and other languages and operating systems became available on disk for precisely this purpose.

Microsoft took this one step further by introducing a co-processor, called the MicroSoft Z-80 SoftCard. Using the SoftCard (which contained a separate, type Z-80, microprocessor) and a 16K Card, the Apple II Plus could now run a very old and popular (but not necessarily good) operating system called CP/M (Control Program for Microcomputers). Note that MS-DOS, the operating system for the computer whose name is its three initials, is modeled after CP/M. Popular programs written to run under CP/M include WordStar (a word processor), dBase (a database), and Modem7 (a communications package). The ability to run these and other CP/M programs made the Apple II Plus an attractive alternative to more expensive CP/M-only machines.

With AppleSoft Basic in ROM, 64K of RAM, and the power of DOS 3.3, Pascal, CP/

M, and the availability of other peripherals such as the Videx "Videoterm" 80 column text card, the Apple II Plus was beginning to collect quite a "cult" following of enthusiasts, across a wide variety of backgrounds. However, its price was still prohibitive for home users. With the introduction of software such as VisiCalc (a spreadsheet) and AppleWriter II (a word processor) many Apple II Pluses were put to work as business machines in offices and laboratories. They were still too expensive to be used just for computer games.

In winter of 1982, Toronto saw, probably for the first time, an Apple II Plus compatible, which was rumoured to be as much as 100% compatible if real Apple ROMs were installed in it. This was likely the first time for the computer industry that a "compatible", "clone", or "work alike" had been made. The first machines that I saw required Apple ROMs (at \$60 each from Apple) but later versions were said to work quite happily with standard EPROMs (Erasable Programmable ROMs) encoded with the contents of Apple ROMs.

This had a tremendous affect on who could afford to own a machine with the power of an Apple II Plus. The parts to build your own "compatible" could be purchased for under \$500. Suddenly, the membership of Apple-user groups such as LOGIC didn't just include doctors, lawyers, and other business people whose offices could afford real Apple II Pluses; it included high school students too. The number of Apple II Plus-like machines in the hands of non-business people virtually exploded.

I suspect this fact created resentment on the part of some individuals, an example of which can be read in Maple Orchard Vol.4 No.1, p4. Here, in the editorial "This Side of the Keyboard", in the section called "And Now About Clones" the Editor of the Maple Orchard lambasted Apple II Plus compatibles on the bases of "ethics, quality and upward mobility". I would argue now (as I did then, in "More About Clones", Maple Orchard Vol.4 No.2, p.38) that the reasoning therein was short of convincing. I also stressed that compatibles widen the user base of a machine. With a wider user base, the short run consequence is increased peripheral and software sales at the expense of computer sales, and the long term consequence is increased computer sales. I think that the popularity of IBM PC/XT and PC/AT compatibles, since the demise of Apple compatibles, have proven my point. These IBM clones have had the unfortunate affect of servicing IBM's purposes to make the PC/XT and PC/AT the de-facto business-office standard.

In fairness, the blame for this situation falls on the vendors of Apple II Plus compatibles. Their failing was the inability to obtain ROMs which were not more-or-less copies of the Apple ROMs, but still had a reasonable degree of compatibility. The lack of "compatible" ROMs lay the groundwork for Apple to do their utmost to stop sales and support of compatibles. It's too bad in a way, because I (and many others whom I know) in all likelihood, would never have purchased real Apple machines without first having owned a compatible.

Soon to come was a shift in some of the philosophies behind the design of the Apple II series, expressed in the hardware of the new Apple II's (the Apple IIe and IIc) and the new operating system, ProDOS. Motivation for this change came from competition in the marketplace, changing technology, Apple's desire to make the Apple II series more powerful, and surprisingly, the presence of compatibles. These new machines, now able to do bank switching in 64K blocks, were finally packed with an internally consistent operating system. Now Apple II series computers were able to run software previously considered to be out-of-the-question for any 8-bit machine.

Recommended Reading:

Filer, Aaron, 1984. Apple Thesaurus. Chatsworth, California, Datamost pub.
Poole, Lon, McNiff, Martin, and Cook, Steven, 1981. Apple II Users' Guide. Berkeley, California, Osborne McGraw-Hill pub.
Sather, Jim, 1983. Understanding the Apple II. Chatsworth, California, Quality Software pub.
Worth, Don, and Lechner, Pieter, 1981. Beneath Apple DOS. Chatsworth, California, Quality Software

(Watch for Part 2, coming to a mailbox near you in October!)



**Apple II
Users
Sept. 21
St. Louis Park High
Educational
Software**



by Tom Alexander

THE SUBCULTURE

The introduction of the microcomputer to the general public some years ago also gave rise to a mostly anonymous group of people within the computer community: The Hackers.

The HACKER is generally thought of as being young (12 years old is not unheard of), extremely intelligent, a guy or gal who flaunts authority and one who is born with the innate knowledge of computers and everything that goes with them. He or she is a master programmer of the first water. Assembly Language is their native tongue. English took a few years to learn.

"Where is, and how can I contact, a Hacker?", you say. This is hard. It is difficult. Remember their anonymity, their aversion to publicity.

One way is to get on BULLETIN BOARD SYSTEMS, or BBS's as they are called. In order to do this, you must get a MODEM (Moe-dem). Modem is short for modulator/demodulator [Thank goodness. Ed.]. An internal modem is a device that is installed in one of your Apple's slots, usually slot 2, and then connected to your telephone jack. There are also external modems for closed computers like the Apple IIc. You then need a communications program to turn your computer into a telephone. Once you've done all that you're ready to make contact with a BBS.

One of the puzzling things about modems for me was figuring out what BAUD rate meant. The baud rate has to do with speed. Modem speeds are measured in BITS PER SECOND and they are listed as 300 Baud, 1200 Baud and on up. All data (information) generated by the computer is stored as a 1 or 0. The 1's and 0's are stored as bytes, there being eight bits to the byte. A 300 Baud modem will transmit and receive information at 300 bits per second. The 1200 Baud modem will do it four times faster.

For general use, the 300 Baud modem should do the trick. If you are calling local BBS's or calling friends with modems, 300

Baud should be sufficient. On the other hand, if you are sending or receiving long files, speed really becomes important. In the past, when I sent these columns by modem to Dan Buchler, our Editor, he would usually have enough time for a cup of coffee. I was transmitting at 300 Baud. Now I've got a 1200 Baud modem. Dan is much happier [...but thirstier! Ed.].

Your first BBS to contact might be Mini'app'les own BBS. Phone 831-6235. There are others around as well. Some BBS's have a whole listing of other BBS's complete with phone numbers and other information.

Several commercial information services have become available to the general public. These services resemble huge bulletin boards and are jam-packed with information and services. The big difference between these and local BBS's is that they charge you for the time you spend with them ON-LINE. Some that you might look into are: **Compuserve**, **The Source**, **Dow Jones News Retrieval** and **GENie**. If you do sign up with one of these it's best to transmit and receive at 300 Baud until you're really familiar with the service. 300 Baud is about half as expensive as 1200 Baud [Check first. Some don't charge differently for 300 and 1200. Ed.].

Back to the Hacker. One giveaway is the moniker used. If you see names like Kracko, I/O Silver, Dr. DOS, etc., you can be reasonably sure it's a Hacker. The names of some BBS's can be a clue also. BBS'n is a lot of fun and it can get you in touch with others of similar interests as yours.



AW Advisor, concluded

GOTO 11 Stop Watches

A set of 5 stop watches that can time events up to 24 hours. Each stop watch can be started independently, or all 5 simultaneously. Each stop watch can have a label of up to 20 characters attached to it. Event timing continues without the watches being on screen. Apple / computers will yield times in minutes, Apple IIGs computers will time events in seconds.

Next month, I will take a detailed look at the interesting and exciting functions in the new PowerPack utilities package.

AppleWorks questions and tips from anyone are welcome. Send to: 7099 Hickory Drive N.E., Fridley, MN 55432. Include your address and phone number. Or call 612-572-9305, no collect calls. Dick



June Board Minutes, concluded

IIGS Purchase Proposal

A motion was made by Tom Gates to purchase a IIGS system to be used for club business. Discussion: Cost of machine estimated at \$2217.00. Includes a second 3&1/2" and one 5&1/4" drive as well as extra memory (3/4 megabytes) to be donated by Apple. Discussion: Dick Marchiafava suggested wait for the next budget period as there would be a new budget next month. John Hook questioned the necessity of this purchase. Motion carried.

Stationary

Dick Marchiafava asked if there was a need to have more stationary made up and members indicated that there was and that the stationary should include the club's address.

Amateur Swap Meet

Dick Marchiafava suggested the possibility of combining forces with the Amateur Swap Meet in place of our summer swap meet. If we do, there would be an admission fee of \$5.00. Dick will pursue this matter and present further information at a later date.

Music SIG Proposal

Bill Arden, member, introduced himself and requested permission to create of a Music special interest group. Approval was given.

A motion was made, seconded and carried to adjourn.

Respectfully submitted by Ed Spidler, July 14, 1988.

<u>Income</u>	
Membership Dues	603.00
Savings Interest	51.38
E-Dom Sales	84.00
	738.38
<u>Expenses</u>	
E-Dom Misc	17.00
Tele-	10.45
Postage, shipping	39.29
Conf, Conv, Meetings	565.60
Insurance	1123.00
Equip Purchases	59.00
	1814.34
	Month Loss 1075.96
Save Acct Balance	11717.22
Check Acct Balance	1188.52



It's in the Genes

by Tom Edwards
August 1988 Mac Users Meeting

Have you wondered what famous folks are hanging from your family tree? Or perhaps you're more like me, inclined to slink out the back door when I found out that my tree contained a pirate that Queen Elizabeth tried to buy off by offering him some land that she had... in Florida!

As Mel Magree explained at our MacUser meeting, there are lots of programs that organize this genealogy stuff for you, but it's still up to you to do all of the grunt-work of finding out what to put into the datafiles: who did what to whom, and when. Mel gets exposed to a lot more of this computer application by way of serving as the Genealogy Round Table Sysop on GENie, a popular dial-in data service. As part of that extra exposure, and his obvious interest in the subject, Mel showed or discussed five of the programs that run on the Mac: MacGene, HyperTree, Family Roots, Family Heritage File and PFAN (Is that last one right? I think that this was a yet-to-beported program from the MessDOS world.).

Who was that lady... ?

These programs all accomplish the same thing for you. They provide a data structure that is designed to handle the linkages to record the information about a family tree. How well they do that is quite variable. Some of the programs are obvious port-jobs from arcane operating systems; nary a Mac operation in the whole program. Others show a most welcome Macish interface, or offer the promise of better things to come with the next release (Real soon, now!). Prices range from free to \$200... and the price is not necessarily indicative of the value offered by the program.

If you have an interest in this type of program, be sure to get in touch with Mel for some tips on what to look for in a program. If you are already keeping track of this information, check for the ability of the program to adapt to the way that you want to manage the information. Some programs do not do a good job of accepting approximate dates, and that's important for those who are following the branches back many generations, where records get harder to verify. Linkages and reports are also important, as well as the ease with which information must be entered into "cards", and some of this can be almost automatic within the better programs.

Mel says that there is no easy way of run-

ning down the information needed to help you complete your tree. A lot comes from old census information, often overlooked in some dusty corner of a city hall or county seat. It's up to you to ferret it out, wherever it may be.

I'm my own grandpa!

Better make peace with that grump next door, too. As you trace this stuff back, Mel says that it is easy to find relations that you didn't know existed. Under all of the rooting around, you'll find that almost anyone can qualify as being at least a third cousin!

New faces...

Of the 60 or so folks in attendance at the August MacUser meeting, 5 or 6 took the bold step of introducing themselves, at the request of David Stovall, our MacUser Coordinator. One had made the trip all of the way from St. Cloud, just to pick up on the genealogy theme! If you are one of the new faces (to us!), let me offer a big, hearty "Welcome" from all of the rest of us at Mini'app'les! We hope that you find the help, information and get-togethers a true value and a bunch of fun. Don't be shy about volunteering an answer or two, if you can, either. Some of the folks at the meeting asked about the following subjects. Can you add better tips or more complete answers?

- What's a good version of "C" to use for programming on the Mac? Those offering an answer, seemed to lean toward C from LightSpeed. (If you still are looking for a solid recommendation, check out a meeting of the Beginning Macintosh Programmers S.I.G. See the calendar for time and place.)
- HyperCard is now out in version 1.2.1. This fixes some of the bugs of the first (two) releases, adds several new features, and probably introduces some new bugs of its own. One of the major changes is that the program can now work with CD ROM, an explosion that is threatened "real soon now." (You can get the latest... almost... Apple software from the Club's E-DOM sales table. Check for HyperCard, Mac System Updates and Apple // System Updates at any of the main meetings. Prices are very reasonable!)
- Speaking of updates, the latest System release from Apple for the Mac is 6.0. Watch for 6.01 "real soon now", according to guru Dave. He has been using 6.0 almost since it came out, and finds that it has been stable and even improved speed in some cases.

- How do folks like the GCC Personal Laser Printer? A few souls in the group have been using it, and give it good marks. (Some of the Mac magazines have done reviews which seem to confirm the endorsement offered at this meeting. Wouldn't it be nice to have a review written for this newsletter by one of our own? A review by an honest-to-goodness Mac User would be a lot more believable than one of those things where they review 52 whatevers within a few pages. They must spend all of about three minutes actually using any individual machine. Besides, if someone else would write, maybe the editor wouldn't have to resort to my stuff for "fillers!")
- Any programs out there that enable editing of TIFF files? DeskPaint, Canvas and ImageStudio were offered as possibilities by our back row this night. Seems to me, several of the Mac magazines have been touching on this type of program application in recent reviews. (There's that word again!)

Oh, well!

I guess that the genealogy bug is yet to bite me real hard. I tried to get Sunny (my wife) to come for the program, but she favors "Cheers" and "Night Court" on Thursdays. Just as well... I'm sure that my family tree is the only family tree around that suffers from dutch elm disease!

More bytes later...

TWE



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Golden Arch on the Mac

by Tom Edwards
July 1988 Mac CAD/E Meeting

Nope. These aren't the minutes of a management meeting at MacDonald's. The golden arch in this story is the program **Mac Architrion**, a French import from Gimeor, Inc. It's just the type of thing that turns the Mac CAD/E group on... yet another way to lay lines down on the screen to represent an architectural or engineering triumph, be it a new grill for the place with the Golden Arches, or an arch made golden by the sun setting west of St. Louis.

The July CAD/E meeting was hosted by *Darron Applequist*, at the Hopkins Heath/Zenith store. *Bill Langer*, chairperson for the group, got things under way with some announcements and the re-introduction of a familiar face, sported by *Curtis Juliber*, Apple's "Engineering/Scientific Business Development Executive"... well, that's what it says, right there on his business card! Curtis was in town on business (he's now located in Chicago, and complaining that he hasn't received the last couple of issues of this rag! Any help available from the folks who manage the mailing list?) and came by to lay a bit of Apple's commitment to the engineering community on us.

Using the spice of Apple technology in presentation graphics, Curtis gave us an overview of how computers (read "Apple Macintoshes") fit right into the engineering work scheme. Mac's interface, the thing that suits are made from, is the big reason for this potential growth... it's so easy and quick to learn, that it makes economic sense. Apple has also worked hard at data integration, a big factor in porting information down from mainframes and minis into the workstation environment. Adding to this need for integration are forthcoming programs for finite element analysis... (excuse me! I just felt a twinge from the etherworld as that bit of techno-babble slipped out. All it means is that an engineer can find out if the building is going to stand up or fall down without actually having to build it)... a task usually relegated to workstations and "bigger" computers.

Power? Of course you didn't hear it from Curtis, but don't be surprised if some new Mac aimed at the CAD/E user is powered by the 68030!

Fortune magazine pegs computers as the third largest industry, after autos and petroleum. They also put Apple into a unique position, able to move and capture a worth-

while chunk of market share. Apple seems to be doing just that, by responding to this growing field of engineering applications with a new marketing group, augmented by a technical reseller program, additional field resource coordination and a program to nurture new solutions through internal development. We'll be watching to see how it all flows together.

Get the picture?

Craig Beddow is an architect. Like most of those in the Mac CAD/E group, he has been looking for a way to use the Mac in his work to gain productivity... qualifying it as a deduction for the IRS wouldn't hurt, either. He was smitten with the Architrion program when he saw it at the AEC show this spring... not only smitten, but caught up enough that he bought into the program and went through their training program to qualify as a "technical consultant." The idea here is to keep a step ahead of other users so that he can answer their questions or provide them with training. We benefited from his experiences by having him present a demo and review of the program.

Craig has been able to spend enough time with Architrion to have it become "familiar" and easier to navigate. Though the approach to drawing is a bit backwards from the pencil-based drawing system... you build in 3D, then create the more mundane 2D stuff by taking a view of the 3D construction and touching up the details in 2D... he has made the transition and finds it comfortable.

Construction is started with blocks arbitrarily placed on the screen. Data about the blocks can be entered via menu/keyboard, by mousing around or a combination of the two. You then "nudge" the blocks into place and relationship as required, creating walls, floors, roofs and openings as needed. The data from the blocks can be moved to Excel, giving you a means to create a bill of materials. Elements, or "frames", can be kept in a library for use in other drawings, moving them as resources with a part of the program that looks a lot like Apple's Font/DA Mover.

Drawings are saved in PICT format, so they are accessible to other programs. There are just 8 layers, but redraw can be slow. Fortunately, there is a redraw-kill command if you don't want to have constant updating of the screen for each change.

The French origin is evident every once in a while, particularly when dealing with meas-

urements. Sorry, no on-screen color. But there is on-screen help and a HyperCard-based tutorial to get you going... and of course, Craig is available to consult, also.

For the tidy sum of \$1500, Architrion offers a complete package for the architectural office, rather than a dedicated program for a specific task. Gimeor appears to be responding to the needs of the architect by updating the program to make it easier to use. More symbol libraries, default selection for more of the options, better notation features and perhaps another approach to the protection question might be in order. The program looks for a hardware "dongle" in the SCSI port as part of the protection scheme. You're in trouble, if someone steals your dongle!

More to come?

Bill Langer continues to come up with interesting subjects for the CAD/E group. He whispered something about "Super 3D" coming soon, then quickly claimed that I had heard these mumbblings from his alter-ego, channeled in from the 25th century. I 'spose if Shirley MacLaine can do it, so can Bill.

More bytes later...

TWE



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Sliding to an Easy Success

by Tom Edwards
August 1988 MCAD Meeting

A picture is worth a thousand words, or so the old saying goes. At the August meeting of the Macintosh Computer Art and Design (MCAD) group, we learned that those thousand words may be one or two million bytes, carefully organized and displayed as one of perhaps billions of slides created each year... most of them for business presentations. Charts, graphs, title slides... some are artsy, most just boring, but they all have a message to deliver.

Easy Slider™ (ES for short) is a program and process that helps to create a growing number of these slides each year. Joy Kopp, coordinator for the group, made arrangements with Rich May, Jr. of Martin/Bastian Communications, (Minneapolis) to show us how the program works.

ES is a graphics manipulator program, with a telecommunications segment on the back end. You import a PICT file from any of several independent programs where you actually create the artwork... something like MacDraw, Excel, Cricket Graph, or More will do nicely. Then you assign colors to the different lines and patterns that you have used to create your art. This is done with the aid of a selection pallet, reminiscent of the pattern pallet in MacPaint or the ColorMate print utility that NEC sold for their color dot matrix printers. Art can be layered (maximum 4 layers) to come up with some special effects if you have planned ahead.

After all color assignments have been made, sizing and cropping is done and the slide is made ready for transfer by processing it into BGL... Business Graphics Language, a description of all lines, colors and text to be shown on the completed slide. The actual transfer is done by the communications segment of the program. It dials and logs onto the service that sends the file to a Matrix Film Recorder. This completes the transfer to film by creating a 2000 line image (4000 also available). Within 24 hours (less, if you need to make special arrangements), your finished slides are ready to go (I wonder if Martin/Bastian has a drive-up window like MacDonald's?).

Rich says that the program has few bells and whistles; you use other programs for the creative part. Special fonts are provided with ES... variants of Helvetica... for text on the slide. Colors are coded into the program, too, so don't get fancy with the latest technology; the

basic package offers 30 and an expanded package bumps that to 60. There are some "template" backgrounds (in colors not assignable to lines and patterns) that offer enhancements for washes, transitions and graphic touches, but this is about it as far as creativity within ES goes. There were several questions from the group about bit map capabilities, but that's just not part of ES's bag.

One nice touch is the ability to print a slide out on your printer, embellished with notes about settings, colors, or other reminders.

The basic program is \$149 and the "custom design package" option the same. Another \$249 buys you an intro group of 100 slides. The money-making hook comes from the on-

going volume of slides cranked out on a monthly billing basis. Prices run from about \$7 each, in low volume, to about \$5 each, in high volume.

Proof of the pudding...

Sample slides were loaded into a tray for viewing, and I'm sure that they were beautiful. However, I got engrossed in a conversation about font customization with another MCAD'er and missed where the smart folks moved to view the slides! Guess that I'll just have to close my eyes and pretend.

More bytes later...
TWE



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Tape Backup Unit Bulk Purchase

Chuck Thiesfeld is organizing a bulk purchase with Braemar Corporation to buy DC2000 tape backup subsystems for the Macintosh at rock bottom prices. Braemar is a local company in Burnsville and has been producing tape drives for over 18 years. The 525MX is a new subsystem designed for the Mac. It has its own power supply and an SCSI tape drive (that has been in production for almost two years). It is packaged in a nice looking platinum-colored aluminum case to match the Mac's color. It comes complete with power cord (of course), a SCSI cable to plug into the Mac, terminator, backup software and manuals. That's all you'll need if you have a Mac Plus, SE or II with an internal drive. Those with external drives will need to get a device-to-device SCSI cable, too.

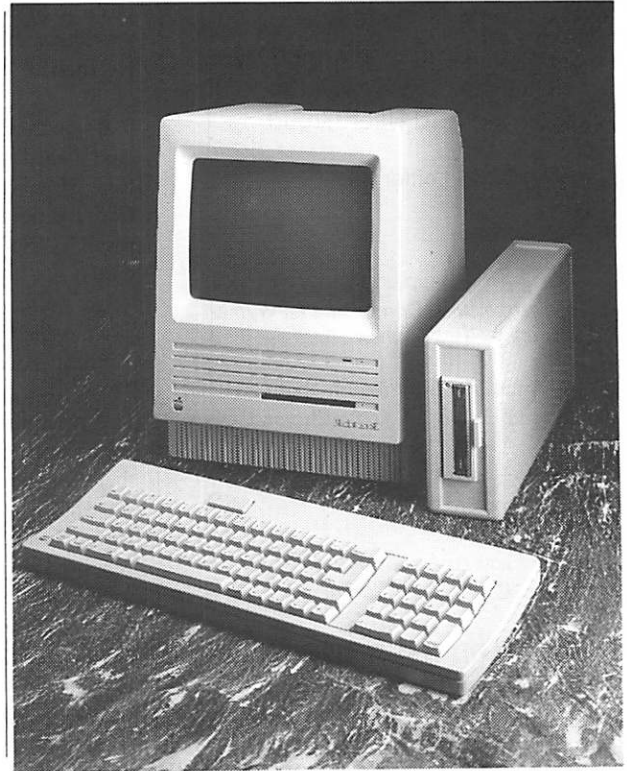
The bulk purchase price of \$750+ MN tax + shipping (prepaid to Braemar) is available to Mini'app'les members only. Chuck will bring the drives to the October MacSIG meeting for those who want to avoid the shipping charges. Braemar is making this a one time offer, which expires October 1, 1988. You must place your order by then.

The software is included in the system. By the way, it is rumored that Apple is planning to distribute its large software packages, ie. A/UX, on these tapes. The software has some excellent features:

- Works on the Mac Plus, SE and II
- Uses DC2000 tapes (40 & 60 megabytes per tape)
- Mirror image backup & restore
- File-by-file backup & restore
- Incremental backup & restore (user selectable last modified date/time)
- Up to 20 backup sessions per tape
- Restore to another drive (transfer)
- On-line help
- Uses all available memory for fast operation
- Restores all desktop information
- Verifies any destructive operation
- Cancel backup or restore anytime (two stage)
- Progress indicator
- User selectable SCSI address (ID=0 to 6)
- Fast (about 1.5 megabytes per minute)
- Easy and reliable with tape built-in defect management
- Password protection for writes and/or reads
- Unlimited size backups using multiple tapes
- Save/recall file selection 'scripts'
- Multiple volume (drives) file-by-file backups in a single session
- Backup any Mac volume (SCSI hard disk, non-SCSI hard disk, floppies, AppleShare server)
- Unattended backups
- Efficient tape use (packed files)
- Unfragments files upon restore. This is a great way to keep a history of some of those large HyperCard files that forever seem to get modified.

Contact Chuck Thiesfeld at the September MacSIG meeting or call him at 831-0009 before Oct. 1 or write before Sept. 25 to:
 Attn: SCSI Drive Offer
 Chuck Thiesfeld
 8416 Xerxes Ave. So.
 Bloomington, Minn 55431

(Editor's note: This offer is made by a respected and long time member of our club and as such is wholly the responsibility of that member. Mini'app'les is prevented by its charter from engaging in commercial activities and, as such, Mini'app'les neither endorses nor condemns such an offer and is in no way responsible for any part of this offer. The club simply brings you this as an announcement of a "deal" which may be of interest to members.)



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Excerpts from WINDOID #7

A Publication for the Informed HyperCard User and the Newsletter for the Apple HyperCard User Group

Editor — David Leffler

IN THIS ISSUE:

- HyperCard Tips by Phil Wyman
- HyperCard Novice Corner by Phil Wyman
- Dictionary by Ted Kaehler

If you would like information about AHUG, please send a stamped, self-addressed, envelope to:

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HYPERCARD USER TIPS

by Phil Wyman

1. In earlier WINDOIDS, I mentioned that you can get a bit-mapped miniature of your Card by copying the card, then doing a CMD-Shift-Paste. However, to do this automatically through HyperTalk, you should try:

```
DoMenu "Copy Card"
type "v" with
  commandKey, shiftKey
```

2. Here is a short example of the usefulness of the "do" command: If you have a variable x with a value of "field id 1", then you can say in your script,

```
get line 1 of x
```

What you would get in this instance is the words "field id 1", the text that was in the variable x. In order to get what you really wanted, namely the first line of field id 1, you must issue a "do" command like the following:

```
do "get line 1 of " & x
```

3. Be aware that when you create a new card, the openCard message gets sent before the newCard message.

4. Developer tip: Test your stacks at every userlevel. This is important since you will probably develop at userLevel 5, which will work fine until a user is in browse mode. A typical example of this problem is if you have a DoMenu "Copy Card" in your script. This will cause an error at the lowest userLevels which do not have that menu choice. A worka-

round to this is to, on openstack, put the current userLevel into a variable, and then set userLevel to 5. Make sure you set it back to the previous userLevel when you leave your application.

5. If you try to go to card foo, and there is no card named foo, HyperCard will not make a fuss. However, you can find out that HyperCard has not found the card by checking "the result". "No such card" is "the result" if the card is not found.

```
go card foo
if the result is "no such card"
then answer "Card not found"
```

6. A returnKey handler intercepts the returnKey when it is hit in the message box, whether there's a message in the message box or not. So when you're using a returnKey handler, take into account that the user may well be sending a message through the message box. I found that I had to look to see if the msg was empty before I did my normal returnKey handler, since I didn't want the returnKey handler to execute if the user was sending another message. The same is true for an enterKey handler.

7. When you hit the grave character in HyperCard, you normally "go back" to the last card you were on. If you wanted a grave character, however, you can type Option-Grave-Spacebar in Geneva 12. For fun, try Shift-Option Grave in Geneva 12. (It gives you a little bunny rabbit in the field. With Geneva 14 you get a bird, with Geneva 18 you get a sheep, and with Geneva 20 you get a Macintosh computer.)

8. Here are some button ideas:

This first button idea is a working radio card button. The radio button checks to see if there are any more radio buttons on, since only one radio button should be on at a time. Put the following script in a button. Set the style to radio button and autoHighlighting to true in the button info dialog box. The script checks first to see if the button which was clicked on is highlighted. If it is highlighted, nothing happens, since a series of radio button should always have at least one button on. If the button is not highlighted, then this script hilites it and turns off all the rest of the buttons on the card. This script assumes that you only have one series of radio buttons on each card, and that all of them are card buttons.

```
on mouseUp
  if not the highlite of me then
  repeat with x = 1 to the number
    of buttons
```

```
if the style of button x is
  "radioButton" then
  if the highlite of button
    x then set the highlite of
      button x to false
  end if
end if
end repeat
set the highlite of me to
  true
end if
end mouseUp
```

The second button idea is a working check box. All the check box does is go on or off. I found it very difficult to figure out that to get a check box to go on or off, you had to click the autohighlight feature in the button info dialog.

9. If your HyperCard home card doesn't look just like it does in the manual, then you need Times 18 font in your system so that the words "HOME CARD" will appear in the proper font.

10. There is an easy way to append to a file in HyperTalk. Read until it is empty, then do your write command.

HyperCard Novice Corner 2

by Phil Wyman

One of the most powerful features of HyperCard is clicking a button which will go to a card. Even a novice can make such a button. This feature requires no programming, yet can allow you to create useful stacks. This feature can also be called "linking," but that word is way too scary for us novices. "Linking" brings thoughts of relational databases and high powered programmers. However, we can "link" a button to a card with very little effort in HyperCard.

Starting on the Home card click on the left arrow and click on Authoring. Click on the right arrow to go back Home.

Click and hold the mouse down on the word "Edit", which is in the menu bar above to your left. We are activating the Edit menu. Drag the mouse down within the menu until the words "New Card" are highlighted. Am I going too fast for you? Let up the mouse. We should have created a new card in your Home stack. We should now be on a blank white card.

We will now use another menu, "Objects". We learned to use menus in the preceding paragraph. So, click and hold on the word "Objects" in the menu bar at the top of the screen. Drag the mouse down to the words "New button" and release. A new button

should now be in the middle of the card.

A couple of miraculous things have happened. One thing is that we are now in the Button tool instead of the Browse tool. We can confirm this by clicking on the "Tools" menu, and you will notice that the button in the middle of the first row is highlighted, not the image of the hand (the Browse tool). Let up the mouse. The other great thing that has happened is that there are dots moving all around the new button we just created! These are affectionately known as "marching ants." When these "marching ants" are around a button, it tells you that this button is the one we can work on. You can only work on one button at a time, so only one button will have the "marching ants" at any given time.

Now, click and hold on the word "Objects" in the menu bar again. Notice that the words "Button Info" have been darkened and are no longer gray. This means that "Button Info" is active, so let's drag the mouse down until the words "Button Info" are highlighted. Let up the mouse.

A dialog box appears on your screen, giving you information about your button. If you start typing, you can give your button a name. There is a button on the dialog box which says "LinkTo...". I want you to click on this button. A small window appears which says: "This Card"; "This Stack"; "Cancel". At this point in the "linking" process, we want to go to the card which we want the button to take us to when we click on it. If this is confusing, it should clear up in the next couple of steps.

From the "Go" menu, choose "Home". This will take us to the "Home" card. Click on "This Card" in the small window. You will be returned to the card with your "new button" on it. From the "Tools" menu in the menu bar, drag on to the image of the hand and let up the mouse. This will put you in the Browse tool, and the marching ants around your button should disappear. You have successfully linked this button with your Home card. Now, every time you click this button, you will go to your Home card! Try it.

This linking of a button to a card has many possibilities. For instance, the button we just named could be called "Home", and every time we click on it, we go to our Home card. In the same way, we could make a button called "giraffe", which goes to a card which has a picture and information of a giraffe. Linking with buttons creates a concept of "navigation", which allows users to quickly go where they want to in your stack.

DICTIONARY

by Ted Kaehler

Part 1

One of the most useful things a computer can do is look up an item in a dictionary. Like a simple database, a dictionary is a table with two columns.

A script looks up a key in one column and reads off the value from the other column. If the word dictionary does not seem to fit well (it does not contain any definitions), think of a Spanish-English dictionary. There are many different situations in which a quick translation from one thing to another is useful. If you are building an automatic table of contents for a stack, you might want to translate between titles of cards and card ID numbers. In a spread sheet, you might want to translate names of cells into field numbers.

Suppose you have an address stack that contains formal names like "Robert," "William," and "Elizabeth." When you use the Find command, you really want to type nicknames like "Bob," "Bill," and "Liz." Let's write a script that translates the informal names you type into the formal names that appear in an address stack.

A simple way to build a dictionary is to make two lists. The nicknames are separate words in one list, and the formal names are the corresponding words of the other. The lists are stored in variables. The lookup function steps through the words of the nickname list. When it finds the name you asked for, it looks for the word in the same position in the formal name list.

First let's make a function that takes a key and two lists. It looks the key up in the first list and returns a translation from the second: function lookup key, listOfKeys, listOfAnswers

```
repeat with ii = 1 to the number
of words of listOfKeys
  if key = word ii of list-
OfKeys
    then return word ii of list-
OfAnswers
  end repeat
return key - return the key if
it is not in the list
end lookup
```

Here is the way its used:

```
put "Bob Bill Liz" into nickNames
put "Robert William Eliza-
beth" into formalNames
put lookup(word 1 of it, nick-
Names, formalNames) into word 1 of
it
```

Now, we need to hook this fragment of script to the Find command in our address stack. Let's intercept the Find command and translate the first word of the search key. (Note that the Find command actually has two arguments. The first is a number that keeps track of what kind of Find it is. This number is inserted behind our backs, and all we have to do is know to give it a name.) This script will work in all versions of HyperCard.

```
on find dummy, key
  - dummy is used privately by
HyperTalk
  send "find" && quote & key &
quote to HyperCard
  if the result is "not found" then
    put "Bob Bill Liz" into nick-
Names
    put "Robert William Eliza-
beth" into formalNames
    put key into newKey
    put lookup(word 1 of newKey,
nickNames, formalNames) into
word 1 of newKey
  if newKey is not key - if word 1 was
translated
    then send "find" && quote &
newKey & quote to HyperCard
  end if
end find
```

The script first sends the original Find command directly to HyperCard. If the Find succeeds, do nothing further. If the Find fails, then look up word 1 of the key and substitute it in. If this substitution changes what we are looking for, then search on the new translated version.

Next, we'll refine this example to make it faster and more elegant.

Part 2

Let's build a more powerful dictionary for converting a key into a value. The key may contain more than one word, and there may be multiple keys (synonyms) for the same value. We'll make the dictionary lookup go fast by using the "offset()" function to find the key in the dictionary. Users can decide if the key should be matched completely, or if it need only match the beginning of an entry (like the Find command).

To allow multiple words in keys and values, we can't use space as the separator between entries in the dictionary. The characters { } and are not used very much and are unlikely to

appear in the things you want to put in your dictionary, so we'll use them as separators. A dictionary entry with several keys and a value will be a single piece of text. Every key has a { in before and after it, and the value has a | just before it and } just after it.

Here is the entry that translates nicknames for Elizabeth:

```
{Liz{Beth{Betty{|Elizabeth}
```

Don't include spaces in dictionary entries unless you want them to be part of a key or a value. Each entry can be on a separate line if you wish.

Let's modify an address stack to translate from nicknames to formal names. We'll keep the dictionary in a global variable called "NickNames". Here is the script that creates the dictionary when you enter the stack:

```
on openBackground
  global NickNames
  put "{Bob{|Robert}
{Bill{|William} {Mike{|Michael}
" &
  "{Liz{Beth{Betty{|Elizabeth}
{Tom{|Thomas}" &
  "{Jim{|James} {Dave{|David}
{Joe{|Joseph}" into NickNames
end openBackground
```

Next, let's build a function that does the actual work of looking up a key in the dictionary. The "translate" function takes a key and a dictionary as arguments and returns the value for that key. If the key is not in the dictionary, the function returns the key unchanged.

```
function translate
key,dictionary,exact
  put "{" & key into realKey -
{Liz
  if exact is empty -
look for exact match
  then put
offset(realKey,dictionary) into
index - loc of {Liz. . .
  else put offset(realKey
&"(",dictionary) into index -
loc of {Liz{
- if the key wasn't found,
give back the original key
  if index is 0 then return key
- Liz
  put char index to (index+200)
of dictionary into local
-
{Liz{Beth{Betty{|Elizabeth}
{Tom{|Thomas...
  put offset("|",local) into
numStart - 17
```

```
  put offset("|",local) into num-
mEnd - 27
  return char (numStart+1) to
(numEnd-1) of local - Elizabeth
end translate
```

The first half of the translate script sets "index" to the location of the beginning of the key in the dictionary. The second half pulls out a section of the dictionary into the variable "local" in order to work on it. Currently, an entry in the dictionary can't be longer than 200 characters (for keys and value). To allow longer entries, change the "200" to a bigger number. The script finds the | at the beginning of the value part of the entry. Then it finds the next } at the end of the entry. It returns the characters from the beginning to the end of the value it found.

The third argument is optional. If you leave it off, the first argument only has to match the beginning of a key in the dictionary (just like the Find command). If you call translate with anything as the third argument, then the key will only be translated if it matches exactly.

Here are some sample calls:

```
put translate("Betty", Nick
Names)
put translate("Mik",
NickNames,"exact")
```

Mik is not translated to Michael in the second example because we specified an exact match. Remember to put double-quotes around a key if it has any spaces in it. Put the translate function in your home script, and use it with all kinds of different dictionaries.

Here's how an address stack would use translate to convert nicknames to formal names for the Find command:

```
on find dummy,key
- dummy is used privately by
HyperTalk
send "find" && quote & key &
quote to HyperCard
if the result is "not found"
then
  global NickNames
  put key into newKey
  repeat with jj = 1 to the
number of words in key
  put translate(word jj of
key,NickNames) into
newWord
  put newWord into word jj
of newKey
  end repeat
if newKey is key then beep
else send "find" && quote &
newKey & quote to
```

```
HyperCard
if the result is "not
found" then beep
end if
end if
end find
```

This script first tries a normal HyperCard Find on the key. If it is found, do nothing more. If the key is not found, then for each word in the key, translate it through the dictionary NickNames and substitute in the translated word. If the translation (newKey) is the same as the original (key), then none of the words were in the dictionary. Since the first search failed, beep and exit. Otherwise, Find using the new key. If it also can't be found, then beep. (Since we are calling Find from a script, it does not beep by itself.)

Notice that the script always replaces a word in the key with its translated value. Since words that are not in the dictionary come back from the translate function unchanged, this works.

Put the translate handler in your Home script to use from many stacks with many different dictionaries. The modified Find handler goes in an address stack. It doesn't belong in the Home script because most Finds have nothing to do with names of people. A quick translation from one set of terms to another is a very useful tool to have in your scripter's bag of tricks. When you're building a stack and suddenly realize that a translation would help, think of these scripts.



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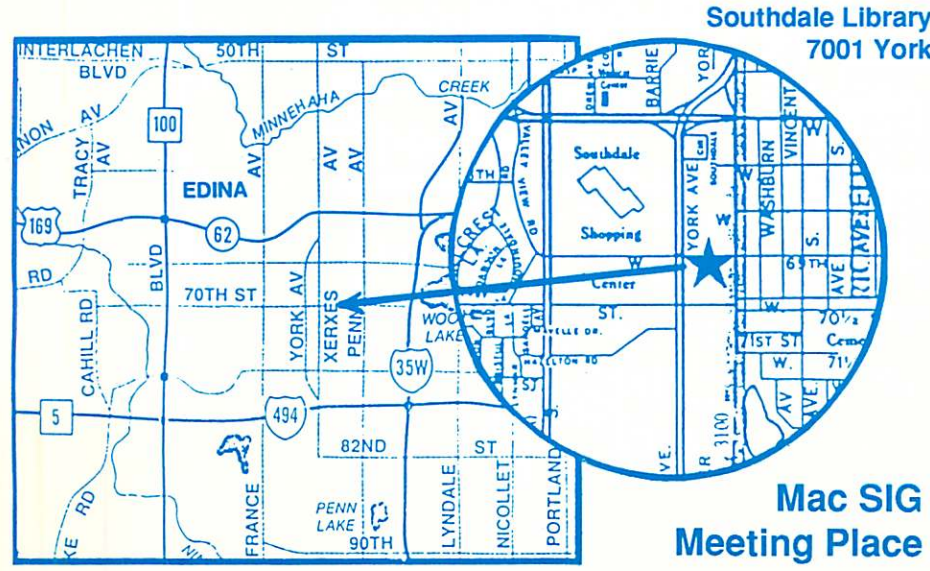
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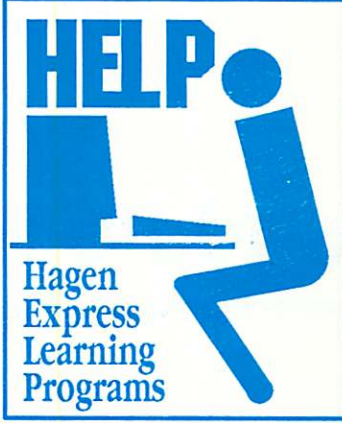
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