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6809 EXPRESS

The Official Publication of the

PENN-JERSEY COLOR COMPUTER CLUB

VOLUME 3 NUMBER 5 MAY 1985

PENN-JERSEY COLOR COMPUTER CLUB OFFICIAL RAINBOWFEST CO-SPONSOR

Marianne Booth, RAINBOWfest Coordinator for RAINBOW Magazine, has notified PJ-CCC that RAINBOW "would be very pleased to have Penn-Jersey work with us again on our next New Jersey show. We were more than pleased with your club's efforts and participation last time."

Marianne responded to a letter written by 6809 EXPRESS Editor, Reinhold Radke, on the possibility of the club being a sponsor again in New Brunswick.

She said in her letter that the set-up basically is the same as last time in Princeton in that they will provide a free booth for the club's use in exchange for helping publicizing the show.

More information will be forthcoming as soon as things "really get going," she writes.

At the April 26th meeting of PJ-CCC the membership voted to again participate in RAINBOWFEST. Six members have volunteered to serve on the committee. They are: Jerry Behler, who has again accepted the chairmanship since he did such a great job last fall in Princeton; Jerry's wife, Paula, Reinhold Radke, Paul Eckhart, and Dean and Ricky Moyer. Jerry will call a meeting of the committee as soon as "things start rolling."

In the ending of her letter, Marianne writes, "All of the RAINBOWfest staff is looking forward to working with Penn-Jersey again."

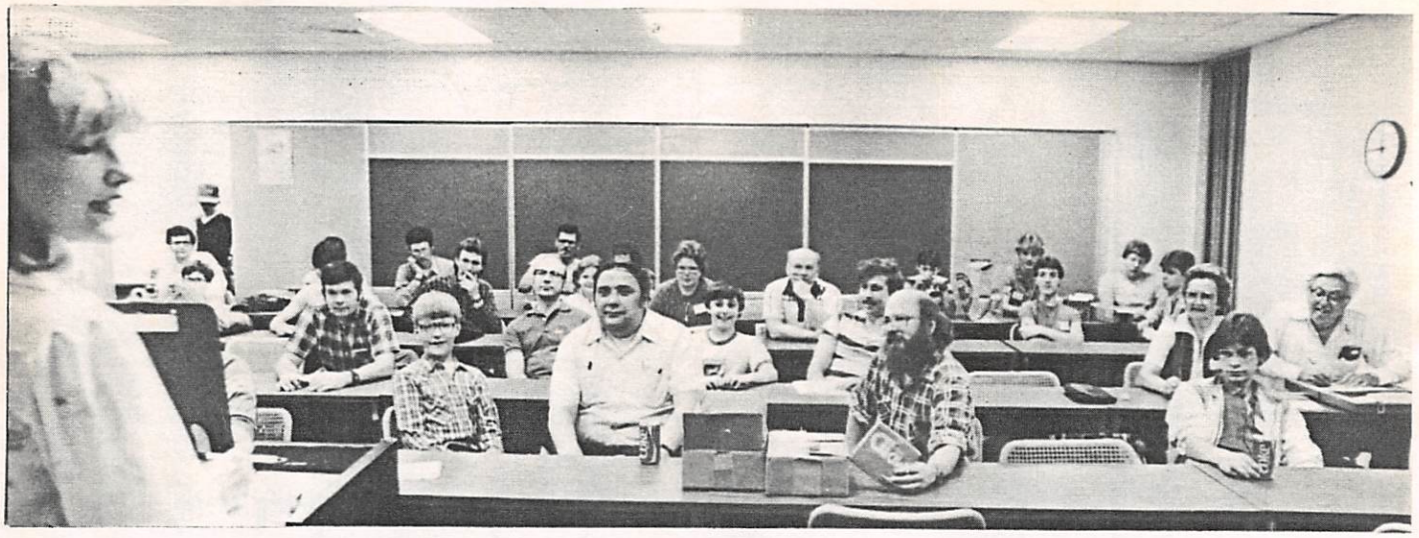
IMPORTANT NOTICE TO MEMBERS

The PJ-CCC's Executive Board at its last meeting held May 3 decided that the club members should vote on whether the current policy of a member using copyrighted software from the club's library only at the club meeting should be continued or be allowed to sign it out to be taken home like other library material. Members of the executive board felt that since the Easton Public Library and colleges and Universities at present let people take out copyrighted software, just like a book, to use at home, it didn't make much sense for members of PJCCC not to have the same privilege.

The club's library has been fortunate in recent months that numerous such copyrighted software has been donated, mainly by PJ-CCC's SYSOP, Jim Mangan and a couple from software vendors. With this in mind the executive committee wants the membership to vote on how they feel and will take such a vote at the May 31 meeting. Think about it and come to the meeting and vote your feelings. To allow copyrighted software to be signed out as magazines and public domain software or to maintain the current policy of allowing such copyrighted software only to be used at club meetings or by a review committee as a group.

IT IS YOUR CLUB - YOU DECIDE WHAT YOU WANT!!!!!

NEXT MEETING — MAY 31 — 7 PM



President Roni DeGarmo presides over the April meeting as members listen attentively?

MINUTES OF APRIL 26, 1985 MEETING

The April meeting of the PENN-JERSEY COLOR COMPUTER CLUB was called to order at 7:30p.m. with President Roni DeGarmo presiding.

UNDER OLD BUSINESS

The March 29 meeting minutes were approved and seconded. Clyde Gano gave the Treasurer's report, which was also approved and seconded.

Reinhold Radke, newsletter editor, read a letter received from RAINBOW MAGAZINE regrading RAINBOWFEST. Rainbow would like PJ-CCC to again work with them in co-sponsoring their next show. They will provide us with a complimentary booth at the show. They will be in contact with the club later with more details. RAINBOWFEST wil be held in New Brunswick on October 18-20. A motion was made by Tom Roginski and seconded by Reinhold Radke to have our club sponsor the Rainbowfest. A committee was formed with the following members to work on Rainbowfest: Jerry and Paula Behler, Reinhold Radke, Paul Eckhart, Ricky Moyer and Dean Moyer.

Reinhold announced that there was an error in the 6809 EXPRESS in regards to the OWL-WARE ad. DRIVE 0 price is $210 and Drive 1 price is $120 to club members only.

Anyone having any articles or material for the newsletter should mail them to Reinhold Radke.

The executive committee will meet the next Friday to discuss the policy for borrowing software and the use of the mailbox for the COCO DEN BBS.

Clyde Gano needs the subscriptions, new or renewals, to RAINBOW (Reg. $31 with a $2 discount) or RAINBOW on TAPE (Reg.$80 with a $5 discount) within a week or so.

Reinhold has documentation available for Mickey Term for $1 donation to cover the cost of the paper.

NEW BUSINESS

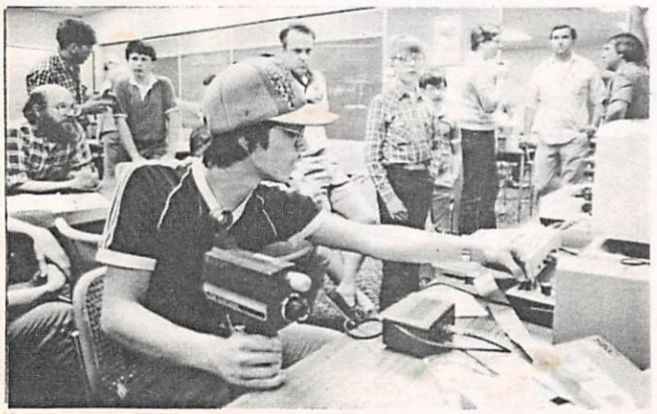
Wayne Moodie has a database manager available (assembly language) for anyone interested on display after the meeting.

Joe Nuben will demonstrate a video digitizer with the CoCo also after the meeting.

The meeting was adjourned at 7:35 p.m. and was followed by a demonstration of various types of printers working with the CoCo presented by Jerry Behler.

The next meeting, May 31, will be on BASIC.

Submitted by Sally Lanshe



Joe Nuben III, puts on a demonstration of his GRAPHX video digitizer at the April meeting.

6809 EXPRESS

PENN-JERSEY COLOR COMPUTER CLUB

The "6809 EXPRESS" is the official monthly publication of the PENN-JERSEY COLOR COMPUTER CLUB. The club is based in the greater Lehigh Valley area of Northeastern Pennsylvania including sections of Northwest New Jersey. Any club or non-profit organization may reprint any part of the newsletter as long as credit is given. PJCCC will gladly exchange newsletters with any other computer club. For any written correspondence send your request to EDITOR, 6809 EXPRESS, Penn-Jersey Color Computer Club, P.O. Box 2742, Lehigh Valley, Pa. 18001.

President	-	Roni DeGarmo
Vice Pres.	-	Phil Herman
Editor	-	Reinhold Radke
Secretary	-	Tom Castronuova
Treasurer	-	Clyde Gano
Librarian	-	Paul Eckhart
Publicity	-	Nelson Russell
Bulletin Bd.	-	Jim Mangan
West Coast Correspondent	-	Tony Cappellini

BURBANK BULLETIN

By Tony Cappellini
6809 EXPRESS West Coast Correspondent

Hello to everybody in PJCCC. This is Tony Cappellini reporting from beautiful downtown Burbank with some new developments in CoCo land. This is the first installment of Burbank Bulletins, and I think all the hackers out there will be pleased, I admit I am late with this article, but hopefully it will give you something to think about before you make your next computer oriented purchase.

Well it seems like our illustrious Cris Erving (author of Versa Mail) has come up with yet another brainstorm. He has developed a 256K Ram Disk for the CoCo. The boards are pre-tested, and installation is TOTALLY SOLDERLESS. The board is about 4" x 5", and it plugs into the 6809 socket. You have to replace the 8 4164 RAMS with 41256 256K RAMS, make 3 SOLDERLESS Connections, and you're in ready to go. You are probably saying to yourself "What's so great about another 256K RAM Board?". Well for starters, it has its own operating system on board in an eprom. The 128K upgrades available previously didn't have any software to operate it, and it was only 128K. This means once you put it in, you couldn't do anything with it unless you were an experienced machine language programmer. The software Cris has written is called THUNDER DOS, and it will allow your RAM DISK to emulate a 35 or 40 track drive (it defaults to 35). You can access the RAM disk as just any other drive (0-3), but I/O's will be a lot faster. It also allows you to have 4 basic programs in memory at the same time and jump back and forth between them. You can also use it as a 20K print spooler AND a 35 track RAM Disk at the SAME TIME. You can even mix modes and use only part of the RAM Disk, and have a printer spooler up to 60K. There is also a 64K boot program on board. Included are some goodies for assembly language programmers such as the ability to address any 32K or 64K page directly. If you are inspired by graphics development, you can place the graphics screen anywhere in the 256K RAM. This allows you to store over 40 hi-res screens in memory at the same time. This should open up a whole new world for the graphics adventure writers. THUNDER DOS easily interfaces with Basic.

The 256K RAM Disk was a big hit at the Irvine Rainbowfest. Spectrum Projects are selling the boards for $59.95 w/o the 256K RAMS, a set of 8 RAMS for $99.95, or a complete board with RAMS for $149.95. Best of all it comes with COMPLETE TECHNICAL DOCUMENTATION AND SOURCE CODE ON DISK, that prints out to almost 50 pages. Cris said there are also some CoCo Max pictures included to help with the installation.

The current version only works on the original CoCo, but Cris says he plans to have a CoCo 2 version out soon.

I'M sure once a few of these get out there into your CoCos, it won't be long before people start coming up with new applications.

That's it for now. See ya at the beach!!!

SYNTAX ERROR

Just a note of thanks to the membership and executive committee for backing my plans on making this 6809 EXPRESS the BEST Computer Club newsletter in the country. As you can see with this issue, we are getting larger and more interesting to read and all because of the great contributions by the members.

This issue carries the first column by our West Coast Correspondent, Tony Cappillini. It is titled "BURBANK BULLETINS." This indeed is an interesting column. We also have a couple of submissions by youngsters in our club, namely Brian Behler and Jason Walters.

I also would like to thank Sally Lanshe for taking the minutes at the last meeting in the absence of Secretary Tom Castronuova who had an addition to the family. A special thanks to Jerry Behler for making the initial contact at A.C.E. SYSTEMS. 100 E. Broad St., Bethlehem, Pa., who have taken a six -month advertising contract with 6809 EXPRESS. Way to go Jerry! An old friend, Richard Kromer of MicroWorld II, Clinton, N.J. returns to the newsletter with an ad featuring special prices on a number of items. So, please read their ads and if possible do some business with them and our old faithful companions, Tom Roginski at OWL-WARE (Disk Drives) and Nelson Russell at the Hillcrest Shop and Phillipsburg Party Supply. Without their help with their ads, this newsletter would be smaller. Their advertising money pays for some of the cost of the newsletter and your annual membership dues pays for the rest. As the 6809 EXPRESS grows, the costs increase. If you can help in contacting potential advertisers, please do so. Talk to me at the meetings or call me at 201 859-6161.

Reinhold Radke, Editor

A NEED FOR A BACKUP

By Clyde Gano

At the last Executive Meeting I stated that I felt the need for help with the position of Club Treasurer.

In all candor, the amount of time involved and the simplicity of the work makes it seem that help really isn't needed. I doubt that I devote more than an hour to the job between meetings. This includes a bank deposit and the writing of the monthly financial report.

What I really need is backup.

Of late my wife, Ruth, has been accompanying me to the meetings and she helps a great deal by writing most of the receipts. Very little bookkeeping is involved. It is what used to be called "single entry". I keep a list of the receipts and a list of the expenditures along with the check book and bank statements. If formal training had been necessary, I certainly would not have qualified for the job!

The big problem is--"Who tends the store if I can't make it to a meeting?"

To date I haven't missed any meetings but it could happen. For example:- Sometime in September and October we plan to do some traveling and then I certainly will be in need of backup.

The Club Constitution doesn't call for an Assistant Treasurer so any help would have to be on an informal basis.

For a satisfying and rewarding (no pay) position, requiring little or no experience please talk to me at the next meeting.

NEXT MEETING MAY 31

The next meeting of Penn-Jersey Color Computer Club will be held Friday, May 31, 1985 at 7 p.m. at the Northampton County Community College.

Topic for the evening will be on Basic, presented by Phil Herman and in case Phil can't make it because of work, Tom Roginski has offered to help out.

NOTE: A very important topic will be discussed and voted on by club members at this meeting in regards to signing out copyrighted software from the club's library. See front page for details.

WHO BRINGS WHAT !

Club members bringing equipment to the May 31 meeting include: Richard Kravits, equipment chairman, the club's CoCo; Steve Pitino, the club's cassette recorder; Jerry Behler, the club's disk drive and controller and his TV; Clyde Gano, TV; Warren Searfoss, cassette recorder; Al Krapf, disk drive, and Randy Behler, CoCo.

"COCO DEN"

215-866-1805

ASK JERRY

This is a technical, hardware oriented column written by Jerry Behler, group co-ordinator of PJCCC's hardware special interest group. Any inquiries about this column may be sent to PJCCC, Express Editor, P.O. Box 2742, Lehigh Valley, PA 18001.

ANALOG TO DIGITAL CONVERTERS

Analog to digital converters, often refered to as AtoD converts change analog information into digital signals that the computer can understand.

Within the COCO, we already have one such converter in use, it is the joystick input routine. Whenever you vary the joystick a voltage is fed into the COCO depending on the direction and amount of change you make. Within the COCO this voltage will be converted into a digital value and acted upon by the program.

For most applications such as games or special hardware interfacing this works very well, however for graphics programs it has some limitations. Our present AtoD uses a 6 bit conversion technique which doesn't fully match the resolution of the PMODE 4 screens as far as pixels go. One way to get around this is a seperate AtoD converter that will offer a higher (8 bit) resolution. You may have seen the "COCOMAX" ads which offer this in their "Hardware Interface" package.

The next hardware special interest group or SIG for short, will be meeting on May 4th. Members will be building their own AtoD converters for their own use. I am providing a list of parts and vendors that will be needed to order if you wish to build one yourself.

ITEM	NAME	PART NO.	PRICE
A	ANALOG TO DIGITAL CONVERTER	ADC0809CCN	$ 4.49
B	13 INPUT NAND GATE	74LS133	.59
C	Quad 2-INPUT NAND GATE	74LS00	.29
D	28 PIN WIRE WRAP SOCKET	28pinWW	1.69
E	16 PIN WIRE WRAP SOCKET	16pinWW	.55
F	14 PIN WIRE WRAP SOCKET	14pinWW	.75
G	INLINE JOYSTICK ADAPTOR JACK	274-021	.99
H	DOUBLE SIDED PROTOTYPE BOARD		9.95

TOTAL COST (EXLUDING CASE, SHIPPING & HANDLING: $19.30

The following vendors carry the above items:

JAMECO Electronics
1355 Shoreway Road
Belmont, CA 94002
(415)592-8097
A,B,C,D,E,F -One of each.
Note:Jameco's minimum order is $10.00.

DATAMAN International
125 South Fifth Street
Lewiston, NY 14092
(416)529-1319
H

RADIO SHACK
G

EDITOR'S NOTE:

Since Jerry wrote this article for the 6809 EXPRESS, he has received a letter from DATAMAN International that they NO longer carry the double sided prototype boards due to quality control problems by their supplier.

Five different printers were featured at the April meeting in a demonstration by Jerry Behler. The printers are pictured above, from left to right, Radio Shack Plotter owned by Phil Herman, Prowriter and C6P115, owned by Jerry Behler, Gemini 10X owned by Reinhold Radke and Nelson Russell's Star Power-Type Daisy Wheel printer.

FOLLOW-UP ON PRINTER DEMONSTRATION

By Jerry Behler

You may have noticed between March's newsletter and May's meeting, that a strong effort was made to cover printers. Of the top three expenses of computing (software, printer, disk drives), printers can be the most expensive and most confusing.

Out of the 44 registered families of the club, about 31 of them already own printers. Some are very pleased with their choice, while others are still wondering, "Did I make the right choice?".

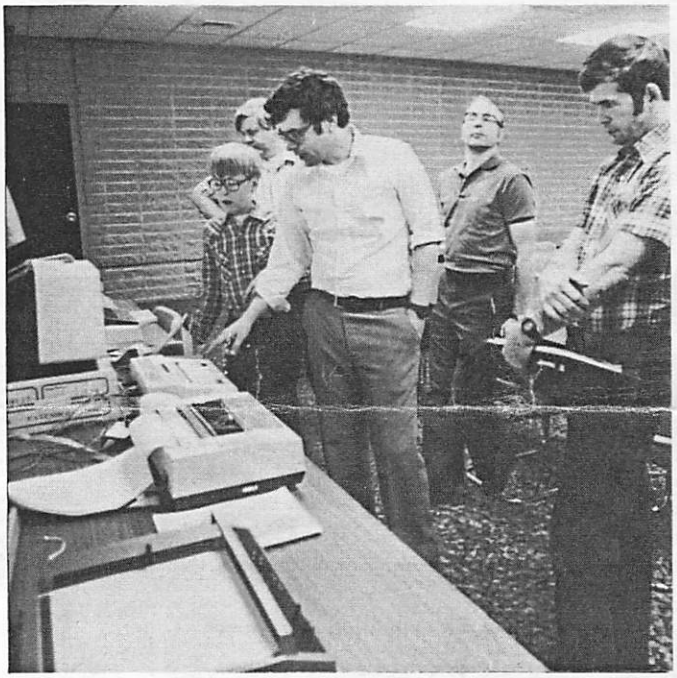
Some of the membership is now looking for a second or third printer to suit their special application.

And finally, there are members that have absolutely no use for a printer.

By now, you may be wondering "What is the point of this article?" I could reply with "The pen is mightier than the sword!". But where does the printer fit in?

I received a lot of compliments on the presentation I gave on printers at the meeting. To all of you, thanks. A very special thanks goes out to Reinhold Radke, for all of his special effort to give you the printed word, his special art, the 6809 Express.

And if you have read this newsletter, cover to cover, pat yourself on the back. You truly feel the need to know YOUR club.



Jerry Behler demonstrates printers at the last meeting.

Everyone listens as Jerry Behler describes the various printers in a lecture before the printer demonstrations at the April meeting.

CoCo Max

REVIEW by JIM MANGAN (Seamus the Sysop - CoCo Den)

COLORWARE 78-03 Jamaica Ave. Woodhaven, NY 11421 $69.95

When the Macintosh was first introduced by Apple, it was demonstrated to me using a superb graphics program. I was duly impressed and at the time I thought that our COCO could never have such a program because the memory capacities of the two systems varied widely. So I never expected to see anything like it on my COCO screen.

Then a few months ago there appeared in 'RAINBOW', an advertisement for a new graphics package being introduced for the first time. The description of what this package could do sounded very similar to what I had witnessed on the Macintosh plus the use of the word 'MAX' convinced me that maybe a miracle had happened and that what I had wished for before , was now a reality. After seeing the ad for a few months, I decided to send away for the CoCo Max package as I was convinced that it was just what I was looking for. As I was soon to learn, I was not wrong in my expectations.

Before I get into the nitty gritty of CoCo Max itself I want to mention the system requirements necessary to run this fine program. The following is required:

1: Coco, with 64K memory.
2: One disk drive
3: Multipak Interface or "Y" cable
4: Joystick, Mouse or Koala Pad
5: CoCo Max HI-RES input module
6: CoCo Max diskette.

‡ Per #4 only the term 'Mouse' will be used later on.

The CoCO Max as received contains the HI-RES input module, a program diskette, and a very friendly manual. Of the items mentioned in #4 above, the mouse is recommended as being best suited for CoCo Max.

The supplied diskette should only be used to make backup copies, which are then used as working disk. It is also a good idea to have a formatted disk on hand to be used for saving CoCO Max files. So now that we have everything on hand and set up we can investigate what CoCo Max can actually do.

Before putting CoCo Max into action there is one more operation to perform if one desires to send CoCo Max files to a printer and that is to configure or personalize the working disk to be compatible with your printer. So to do this you must RUN"CONFIG" at which time you will be asked questions about the printer and what baud rate is desired. You only have to do this once unless you change printers.

The following printers can be configured into CoCo Max: Gemini, Epson MX / RX series, Radio Shack LPVII, Radio Shack DPM 100 / 120 / 200 / 400 / 500, C. ITOH / Prowriter, Apple Imagewriter, HP Thinkjet, and the PMC.

I will make no attempt to compare CoCO Max with any

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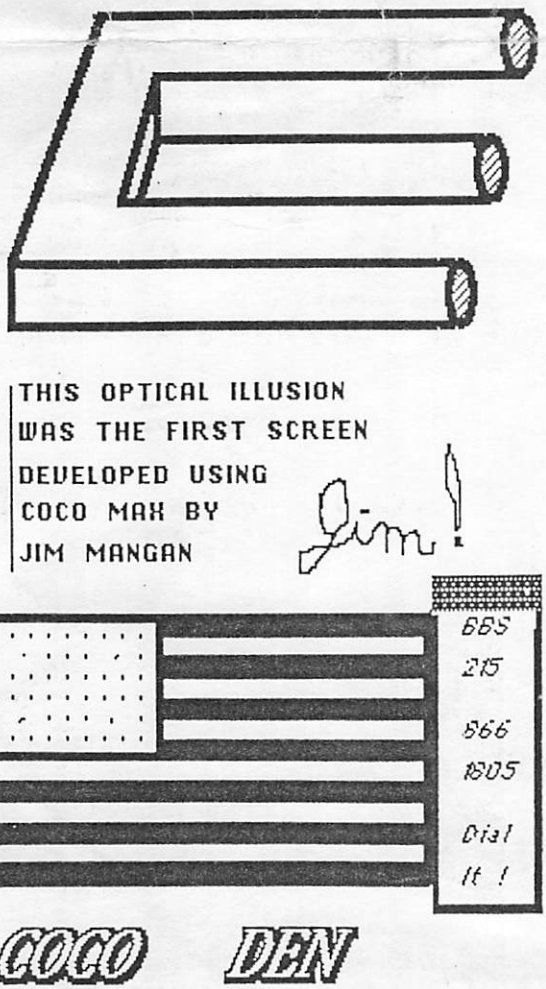
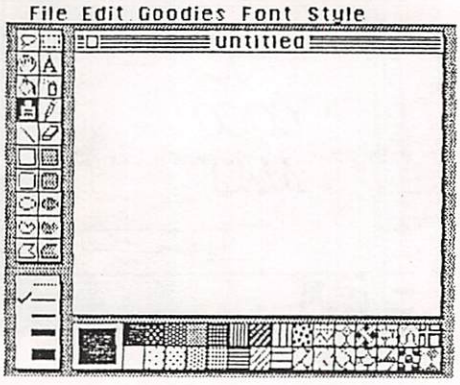
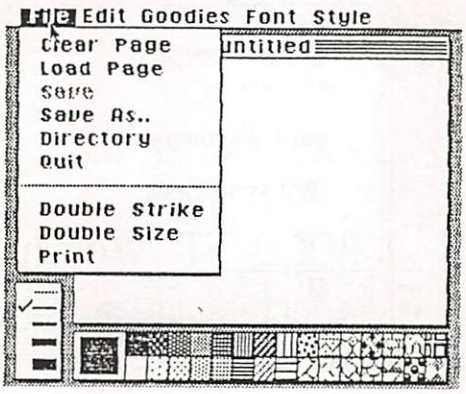
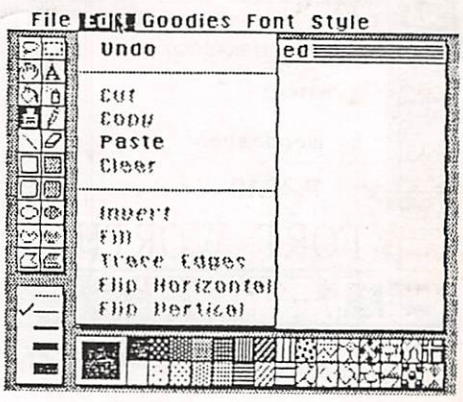


THE COCO MAX SYSTEM







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other graphics program for CoCo, but will only try to evaluate CoCo Max on its merit alone. So load up CoCo Max and away we go!

After loading and running Max a very familar screen appeared to me. Now where did I see such a screenful of goodies before? Oh yes! On that very expensive Macintosh with its very large memory. So now here was CoCo with only 64K competing with its much larger and more powerful competitors. So with eager anticipation I started investigating every thing I saw on the screen. First, at the top of the screen from left to right appeared five words: FILE, EDIT, GOODIES, FONTS and STYLES. Upon closer inspection they are seen to be pull-down menus with a lot more to work with. Beneath this is a small window which will display the name of a file loaded from disk. At the left of the screen there is the 'Tool Box' showing 20 ICONS of tools that are used to draw or construct anything at the right of the screen in the work area or 'WINDOW'. Below the Tool Box there is a line width selection box. And last there is at the bottom of the screen one large square (Pattern selector) and a double row of 15 smaller squares per row. This is the palette which has a total of 60 patterns to choose from. This initial screen display is what you have on hand to work with.

The CoCo Max program is controlled by four elementary operations with the mouse, namely, POINT, CLICK, DOUBLE CLICK AND DRAG. There isn't a single command to remember. The only keyboard entry is for entering font and names of files to be loaded or saved to or from disk. It is as simple as that, so that even a young child can master CoCo Max in a very short time.

Also seen on the screen is the picture of a hand with a pointing finger. So taking the mouse and moving it around you will see the hand move in the same direction as the the mouse. Hey! This looks easy! The next step is to point it at something. So lets try the words at the top. Moving hand to top and pointing and pressing button, wow!, a menu appears like a dropping window shade. Upon pointing at all five words, each dropped its own menu on the screen. OK now,

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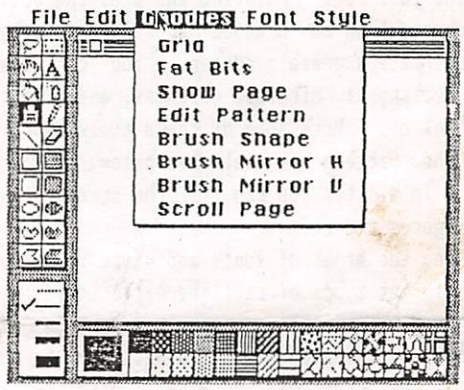
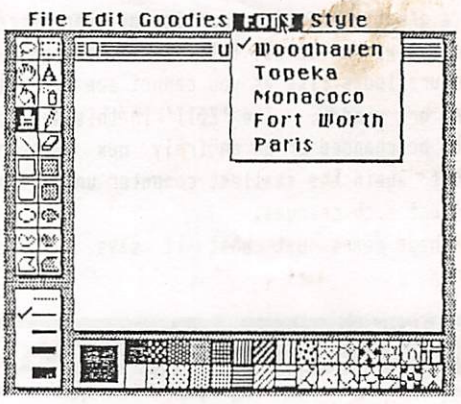
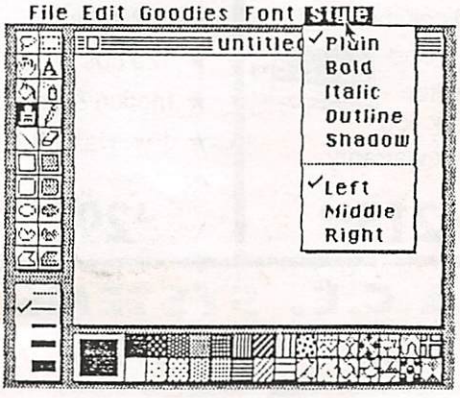
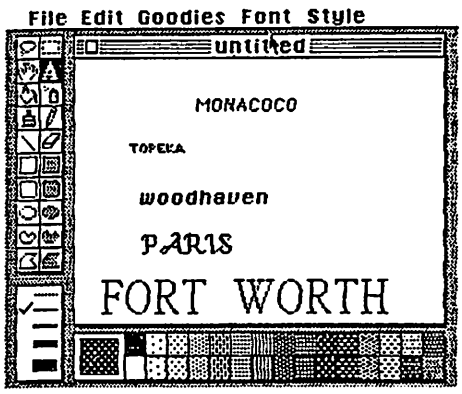
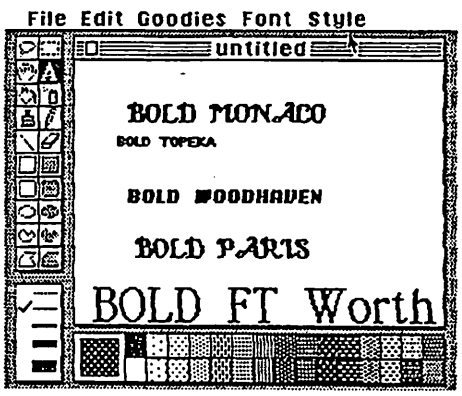
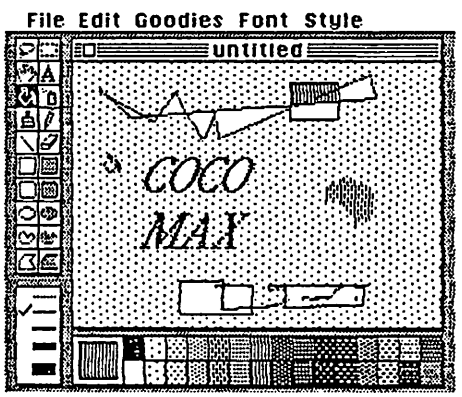












Some of the screens Jim did to accompany this article.

Continued from page 7

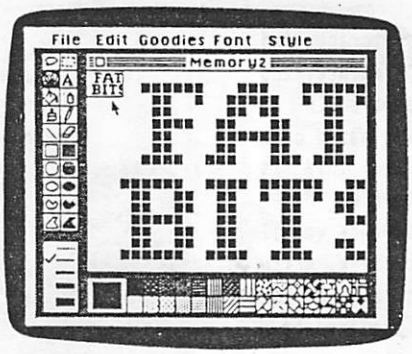
lets try the tool box. Pointing and pressing button at a tool which can then be 'Dragged' to the window where it can be used to create a graphic screen. You can draw lines, squares, rectangles, circles, ellipses, and almost anything you can think of. With some of these tools you can also fill in the pattern as selected below, as you draw your sketches. In minutes you can fill the screen with with all kinds of figures and colors.

Combining the menus of fonts and style it is possible to get 80 different types of calligraphic printing. There is also lowercase available when using the font-style combinations. The goodies pulldown menu is loaded with 'goodies'. This menu lets you work in grid or free hand mode, allowing you to really do fine work by working with pixels on a greatly magnified portion of the screen. The show page allows one to get full screen viewing of what the entire picture looks like as you cannot see it all on the work area or window. The 'EDIT' in this menu allows the patterns to be changed or an entirely new pattern can be made. Here again the smallest computer unit, the PIXEL is used to affect such changes.

Brush shape means just what it says. There are 32 different sizes and shapes to choose for your paint brush. Brush Mirror H lets you paint with 2 brushes horizontally and brush mirror V lets you paint with two brushes vertically. If you use them in combination you can paint with 4 brushes at the same time giving a very pleasing kaleidoscopic effect. The 'GOODIES' menu is my favorite. The pull-down 'EDIT' menu lets you undo, cut, copy, paste, and clear. You can also invert, trace, fill, trace edges,

JIM MANGAN'S ART

AX SYSTEM



Copies of screens from CoCo MAX advertisements

and flip either horozontally or vertically. I have to investigate this menu more thoroughly as I cannot really explain what it does but some of the words are self explanatory. The last pull-down menu under 'file' is a very powerful and important one. It allows you to clear page, load page from disk, save your artwork to disk. It also gives you 8 printer options. Printouts can be 1/8 or full sized sheet.

In summation of all of the above features I must say that even a person who has no drawing ability like myself and who is also visually handicapped, can create a fairly presentable picture. Now a person with talent and imagination should be able to produce a really great work of art. I have spent hours just 'DOODLING' with COCO MAX enjoying all the things from the silly to the serious. With just using the mouse it is a fascinating experience to use all the menus and tools that are contained in CoCo Max. I have shown visitors and guests to "Coco Den" this truly remarkable program and once they sit down and try CoCo Max they are in another world, oblivious to all their surroundings. So what more can I say except that if you can afford it, BUY IT!!!! You won't be sorry! CoCo Max is also a very strong contender to be the program of the year as far as I am concerned.

And finally I would like to submit my first picture I made which is that of my favorite optical illusion. One more picture is a poster that I have hung up in "Coco Den". So once again I would like to say that COCO Max is a truly remarkable program and your CoCo deserves the best. So treat your CoCo to a treat!!!

ON THE COCO MAX

Tom Roginski asks to be excused from Wayne Moodie's MISAR demonstration.

MISAR DATABASE MANAGER PROGRAM

By Wayne B. Moodie, developer of MISAR

MISAR (an acronym from Managing Information Storage And Retrieval), was designed as an aid in maintaining information related to any subject. It was conceived in an effort to overcome the major drawbacks with disk based data managers - wasted time and limited record formats. This is accomplished by making all data memory resident, i.e. MISAR is a memory based database manager. The only commands you'll ever wait for are the ones that read or write to disk, write to printer or sort text, the first two of which are device speed dependant. Even the sort is ultra fast compared to a disk sort: you might have to wait five minutes for a very large, completely unsorted file that would take several hours for a disk based data manager to sort.

The record format constraints are virtually eliminated by allowing any number of record types in memory at the same time. The only qualification is that you may not have more than 255 different field types in memory at the same time. But many records have the same field in common, hence the inlimited number of record types exist with a minimum of wasted memory.

Perhaps at this point you are wondering what some of these terms mean. The industry has coined several to define the data base managing process. Some of these are:

FIELD: A collection of characters in a predetermined format.

RECORD: A collection of fields.

DATA FILE: A collection of records.

FORMAT: What form the data may take (characters, numbers, etc.) and how it will be displayed.

DATA BASE MANAGER: A class of programs that allow collection, storage, display and manipulation of information.

With these rather basic definitions, I'll attempt to explain some of the other functions available with MISAR.

In order to use a database manager, the first thing you will need to do is to decide what kind of information you want to manage. Next, you derive the individual fields required. Since these fields are the foundation for all the data you will be entering later, you should put a good deal of thought into their selection.

Wayne Moodie demonstrates the MISAR Database Manager he developed to club members at the April meeting.

Once you have decided what fields are required, you will need to define the screen formats that the data will be entered and displayed on. For this task, I have designed a separate program called BRIEF (for Build Data Input Entry Formats). BRIEF will allow you to completely define (and change) the individual record formats. You will be able to define the record type title, which is a description of what kind of data will be in the record. (An example of the record type title might be NAME & ADDRESS.) You will be able to define the position, title and data format/length of each individual field on the screen. (Examples of field titles for a NAME & ADDRESS record might be NAME, ADDR, CITY, STATE, ZIP, PHONE # and possibly a few lines for comments or notes.)

You can then save these formats on your disk for later use with MISAR. You can use BRIEF to load them back in and edit

Continued on page 11

All eyes are on the MISAR program.

PASCAL SIG NOTES

By Reinhold Radke

The PASCAL SIG is finally moving along and members are starting to write their own short programs after studying the first six chapters of the book. Group Co-ordinator Jason Fox has taken the group through sample exercises and examples and each member is writing a short program to put a name and address and telephone number on a "Rolodex" card. The group held its last meeting May 21 at Jerry Behler's "CoCo Den" where the short programs were reviewed. The next meeting of the PASCAL SIG will be held June 4th.

It is open to all members of Penn-Jersey Color Computer Club.

them to make new record formats or merge several format files into one. These formats are now ready for use with MISAR, where you can add, copy, edit, delete, search, list, sort, save and generally maintain the actual data.

As with most database managers, once you have entered data with one set of formats, you cannot go back and change the formats and expect the old data to work with the new formats. This is because the data has, up to now, been saved in the format as you defined it. When you add, delete or change fields within a record, using BRIEF, you change the record format and the old data no longer fits.

You also cannot read data into a set of formats that don't match the data, i.e. data entered under one set of formats will show up as garbage under a different set.

Test your data formats out thoroughly now before you enter a lot of data and be careful to define your data formats to allow for future enhancements. Unlike many database managers, MISAR does allow you to go back and change the length of an ASCII or text field without rendering the previously entered data useless. Neither does changing the field headers or positions affect the validity of the data.

Now that you know about formats, I will tell you a little bit about MISAR and the available commands. The complete list of commands is:

A: Add a record to the data file. MISAR will prompt you for each of the data fields as you have defined them, check them for validity/format and enter them into data base.

B: Bottom of file. The last record in the file is displayed as the current or attentive record.

C: Copy the current record after another. Can also be used to move a record.

D: Delete the current record.

E: Edit the current record. The left and right arrows are used to move about within the field; the CLEAR key is used to delete characters.

F: Find an occurance of data in a particular record type. Single or multiple field may be sought. Summing of dollar fields is automatically performed. You may require that all or any fields be found. (First AND second AND third ... or first OR second OR third ...)

G: Goto a record, by record number.

H: Horizontal format output to screen, disk, or printer. This allows records (as much of each as will fit on a single line) to be output in a scrolling/columnar format.

K: Kopy the current record, as it appears on the screen, to the printer, with or without the field headers. This command can be used to fill in pre-printed forms or make complete copies of lengthy records.

L: Load new formats. This command clears all records and formats in memory and allows you to load a different set of formats.

M: Match type setup. This very powerful command allows you to tell MISAR to effectively ignore certain types of records. The records remain in memory but are hidden for your convenience. During reads, writes, outputs, etc., these "matched out" types are not acted upon.

N: Next Record. The next record becomes current.

O: Output device assign. Allows output to be sent to the disk or printer.

P: Previous record. The previous record becomes current.

Q: Quit and return to BASIC. You can get back to MISAR through the Exec command or RUN "MISAR" and all data will be intact.

R: Read a data file into memory. If there is already data in memory, the new file is appended to the existing data.

S: Sort the file by record type and by field. You may sort on any number of fields. (ASCII ripple sort.)

T: Top of file. The first record becomes current.

W: Write a data file to disk.

Z: Zap the data file. Clears all data from memory but leaves the current set of formats intact.

MISAR is a good, general purpose database manager. An average session consists of loading the formats, reading the data and processing it to suit your needs. A help screen is available to jog your memory as needed, as well as example format and data files to help you create your system. Complete documentation is also included to the data structure level.

HARDWARE SIG NEWS

By Jerry Behler

The last two meetings were devoted to the analog to digital converter. On May 4ths meeting we looked into how the unit is address decoded, and how the selection of the different ports is accomplished. Also, several discrepencies were found in the schematic which would prevent proper operation. Corrections will be made as soon as possible.

We were unable to build a working unit, due to the short notice and availability of parts. Members decided to complete their own units by next month as parts arrive.

June 8th will be the next scheduled meeting, with no meeting scheduled for July or August. If the interest is still there in September, I will again start the SIG.

REVERSE VIDEO MODIFICATION

By Tony Cappellini

Have you ever had to sit so far back from your monitor or TV that you could barely reach your keyboard because your text screen was too bright? So you turn down the brilliance control and now when you use your TV everything is so dark that the (Where's the Beef lady) looks like Al Jolson. You may have tried to use a pair of Foster Grants to cut down on the glare and found out you couldn't even see the keyboard? Well salvation is at hand! It's called REVERSE VIDEO. What's Reverse Video you ask? Reverse Video is a quick and easy modification that anyone can do to their computer in about 30 minutes.

There are two ways of doing the mod, both of which will be discussed along with their advantages and disadvantages.

You could pull out your VDG and plug it in backwards, but then all your text would be backwards and hard to read, (the latest in anti-piracy techniques) and your VDG would probably now be a dis-integrated circuit. But there is a better way.

Before you start, make sure the IC reference numbers on the schematic are the same as the numbers on the IC's in your computer. (The schematics below are from a REVISION D board.)

Now you need to get a single-pole double-throw switch, about three feet of 26 gauge wire and a soldering iron.

First take the off the top cover and look around for a place to mount your switch. I put mine on the bottom half of the cover on the right side about 3 inches from the front. Drill a small hole where you are going to mount the switch. Next solder 3 wires onto the terminals of the switch. Maker sure the wires are long enough to reach the upper side of the VDG by routing them under the RF shield. Now carefully take out your VDG and lift pin 32 straight up to the side and solder the wire from the MIDDLE terminal on the switch to it. Next solder the remaining two wires to pin 1 and pin 2 (EITHER wire to EITHER pin) of the VDG. Your mod should now look like Figure 1 (below). If not re-check your connections before putting the VDG back in its socket and turning on the power. You can now turn on your computer and try out the switch. When you boot up and the message comes on, throw the switch and you should see the text change from normal black letters on green background to green letters on a dark green background. I'm sure you'll find this an improvement over having to re-adjust your brilliance control when you switch from the TV to the computer. Unfortunately this method has one drawback. If you are typing in lowercase and you are in Reverse Video all your text will look like uppercase until you throw the switch to the other direction. This can cause a lot of trouble whenever you accidentally save a file in lowercase and cannot see it because you are in reverse video.

The second method shown in Figure 2, is covered in the March 1983 Rainbow Magazine on page 176. It involves using another chip to invert the signal before it goes to the VDG. Before you make your mod this way let me warn you of its drawbacks. If you run a program such as the Jeff Francis Diskutility which puts you in reverse video through software you will get double reverse video (The old double reverse video on the Color Computer trick). You now have to throw your Reverse Video switch again to get your dark screen back. You may be able to live with this, but if you use that Diskutility as much as I do I'm sure you will choose the first method.

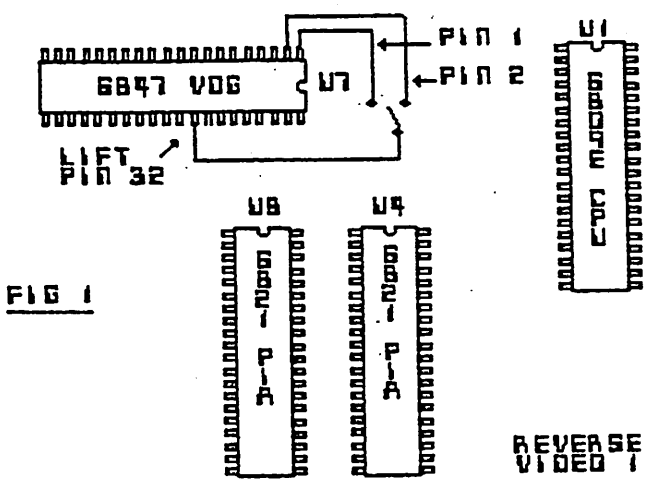


Fig 1

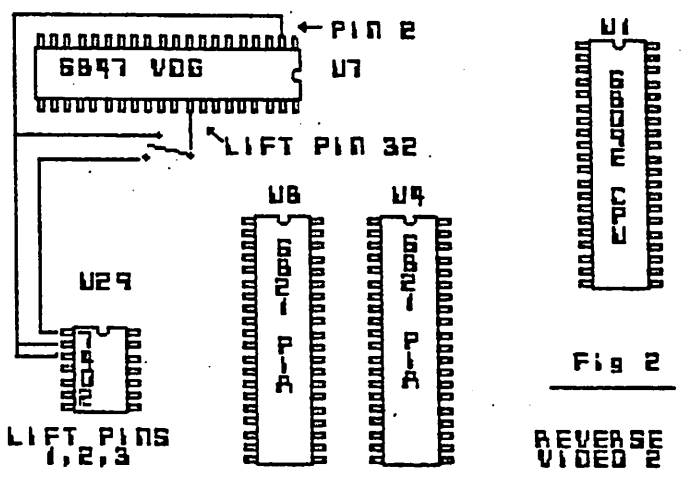


Fig 2

NEW CLUB MEMBERS

We would like to welcome two new members who signed up at the April meeting. They are: Kenneth Dawe, 200 Roosevelt St., Wind Gap, Pa., who was a visitor at the March meeting, and Wayne B. Moodie, 2941 Chew St., Allentown, Pa. Wayne donated the MISAR Database Manager to the club at the last meeting after he demonstrated it to club members. Wayne worked on MISAR for two years and we thank him for his donation to the club library. An article on MISAR is found elsewhere in this newsletter.

COCO LANGUAGES

By Reinhold Radke

The English Language was a little difficult for most of us to learn when we were in school, especially for me since I came to the U.S. as a teenager from Austria, and those members who are currently students probably would come to the same agreement. Well for some of us there are a couple of more languages to learn in operating our Color Computer to the fullest extent.

At present there are seven popular computer languages available for the CoCo. They are: Basic, Assembly, Pascal, Forth, Logo, Pilot and "C". Some others like, Fortran, Cobol, Lips, Modula-2, APL, SBasic and Smalltalk are used in various other computers.

In this article we'll describe those languages available for the Color Computer and the differences which distinguish them. The Encyclopaedia Britannica defines computer languages "as sets of characters used to form symbols and words in such a manner that the various steps os solving a problem may be communicated to a computer."

What this means is that language produces communication using a set of words or symbols. COMMUNICATION is the KEY.

You communicate with computers for many reasons: to balance a checkbook, publish a newsletter like this 6809 EXPRESS, write letters, maintain a mailing list, keep track of accounts receivable and payable if you own a business, play games and zap aliens or turn your coffee pot on in the morning, and so on.

All these examples illustrate the end result of computer programs. A program is the proper arrangement of words and symbols of a given computer language that results in some task being performed. Each specific language for computers has its own defined words and symbols and its own rules for combining them.

There are two levels of computer languages, 1- Low-Level and 2- High Levels. Well the CoCo really only understands and interprets only one language - machine language. Everything else is an illusion. Machine language consists of numbers (10110110, 00000000, Binary Numbers) that the computer sees as commands directing it in a variety of simple tasks, such as adding two numbers together.

LOW-LEVEL LANGUAGES:

Machine language, once entered into the computer via the keyboard, is executed directly. That's why it's so fast. No intermediate steps are involved. This is not true of the all other computer languages. All the other languages use and assembler or compiler to interpret the instructions into the machine code.

Assembly Language is a step above machine language and for the average hobbyist is difficult to understand and therefor is also a low-level language.

HIGH-LEVEL LANGUAGES:

In high-level languages, one line of code might represent many machine operations. Also high-level languages often use complete words rather than mnemonics (sort of a short-hand like RETURN instead of RET), to make the program easier to read and understand.

So that I don't make it more confusing I'll go on and describe the high-level languages available at present for the CoCo.

BASIC -

Basic, Beginner's All-purpose Symbolic Instruction Code,

Continued on page 14

EDITOR'S NOTE:

The following article was downloaded from the club BBS- "COCO DEN". Reprinted with permission from both Jim Mangan and Jason Walters. Minor editing was done, but Jason's thoughts and ideas were kept intact.

HACKERS

By Jason Walters

A hacker is a person who misuses a computer. Sometimes we call ourselves hackers when we just use a computer, but hackers break into other computers and at times do much harm.

A hacker ruined this BBS more than one time. The person(s) responsible should be ashamed of her/himself for doing so. A hacker is nasty for doing anything like that. IT'S WRONG!!!!

Say a hacker broke into a bank computer, and got an account for a large amount of money, and got away with it. He would get money he really didn't have. That's not right! More people would try it and rip of the bank, then everyone would have a guilty conscience, and it would hurt in politics. No one likes that. That would be terrible. So don't try to be a hacker, just be a computer user!!!

On this BBS you don't have to be a hacker to have fun, just chat if your blue!!!

What good does hacking do? You can just have fun without doing harm, and Jim has a small BBS, why would anyone want to ruin it???

I hope I proved my point!

H A P P Y H A C K I N G !!

Or happy computing I should say!!

T

H

END

Note from SYSOP: Jason's article was submitted and is as he wrote it. Thanks Jason for taking such interest in 'COCO DEN'

IT'S A BOY!!!!!!

Sue and Tom Castronuova proudly announce the addition to the family of 7 pound, 11 ounce, David. David was born at 1:30 p.m. on May 6, 1985 at Easton Hospital. The Castronuova's have another son, Joey.

I wonder if Tom will get more CoCo hardware this year to make up for the extra $1,000 deduction in his federal income tax.

CONGRATULATIONS SUE AND TOM FROM PJ-CCC.

was developed as a language for use on a large time-sharing computer system at Darmouth College in the mid-1960's. It is a general-purpose language that's rather easy to learn in a short period of time.

It takes time, practice and patience before you can write sophisticated programs in BASIC. BASIC has many simplified commands and the main advantage of BASIC is that you can sketch out ideas for programs or complicated subroutines rather easily.

Almost all Basic languages are interactive but not compiled. Interactive means a program gives immediate feedback to its programmer during the writing and debugging stages, with easy to-follow error messages for each statement as it's encountered during the editing or execution stages.

In compiled languages like CoCo's Deft Pascal, a source program file has to be completely written in a high level language. Then it's processed (compiled) by a program that converts the whole thing into machine code (object code). The code, when executed, runs very quickly.

EXTENDED BASIC just has many more simplified commands available and includes goodies like advanced scientific and mathematic functions.

PASCAL -

Pascal, was named for the French mathematician Blaise Pascal, was created in the early 1970's as an educational tool. Pascal was intended to introduce students to computer programming, It is a structured language that almost forces a programmer to organize his program before entering it into the computer.

One of its strong points is it's many different possible data types. You can add new ones (modules) as your program requires. For instance, you can establish the days of the week as one data type. Or you can declare a data type called DATE that includes automatic range checking for month (1-12), day(1-31), and year(0-99).

Like Basic, Pascal tries to be a general-purpose language. It is more tedious and difficult to program than Basic.

Deft Pascal is available for disk systems only.

FORTH -

Forth stand for fourth generation language. The second generation system on which it was developed permitted only five-character file names, so Fourth became FORTH. Charles Moore developed it around 1970 to control telescopic equipment at Kitt Peak National Observatory.

Forth is strange, different, frustrating, and fascinating. It requires an entirely different approach to programming, so you need time to get used to it.

One of FORTH's big advantages is that it is an extensible language. A programming languuage consists of words and symbols, and the rules for combining them. In Forth, you can add new words and symbols that become as much a part of the language as the original ones.

ColorForth is available in cassette and Disk versions. Not much about ColorForth is heard at the present time.

LOGO -

Logo, from the Greek "logos," meaning word, is a way of teaching people (especially children) to interact with a computer. It was developed in 1968 at M.I.T. It is basically a graphics language. Like interpreted Basic, Logo provides an interactive mode and programming mode.

Radio Shack's version of Logo for the CoCo has two interested features: recursion and multi-tasking. Recursion allows you to write a program that refers to itself; for instance, you can draw a tree as a series of successively smaller branches.

Multi-tasking permits you to do several things at the same time. You can have two tasks drawing game pieces moving aroung the screen while a third task scans the keyboard for the player's moves.

Color Logo comes in a ROM pak version.

PILOT -

Pilot is a limited language useful for developing multiple choice type tests. It allows you to quickly create questions and answers for students. You can also use the computer to score the student while he takes a test at a terminal.

Because of its specific use, Pilot is not as versatile as Basic, but it can execute many operations with ease.

Instructional units and test can more quickly be designed by the average programmer in Color Pilot than they can be designed in Basic.

This lets educators design and program such software in a relatively short period of time. Pilot is easy to learn and easy to program.

Color Pilot is available for cassette and disk based systems.

C-

C is a highly structured language like Pascal in that you must declare your variables before using them, just like in Pascal. This declaration of variables is good only for one subroutine. It's pretty hard to get mixed up when you have to declare each variable in each subroutine before using them.

C uses a compiler to turn the source code into assembly language. C was developed by AT&T Bell Laboratories and is extremely compact and complex, making it difficult to learn according to some magazine articles. One of its primary uses is to write programs for a new generation of personal computers that can be connected together into small networks.

According to news articles, "C" is the hottest language now at computer schools.

C is available for disk systems only.

Reinhold Radke

BASIC IS TOPIC OF MAY 31 MEETING

ANYONE FOR ROLLODEX CARDS?

Jerry Behler announces that anyone interested in Rolodex cards to be used on a computer printer, should contact him since he has plenty left over. He recently ordered some and the minumum order was for 5,000 cards. "I'll never use them all," says Jerry.

The cards come on continuous tractor paper and are die-cut so after printing them on your printer, you can just push them out and put them in your Rolodex file. Contact Jerry if you need some and he'll make a deal with you.

WANT YOUR NAME ON VENDOR MAIL LISTS?

The executive board has decided to let members decide whether they want their name and address to be included on a mail list to be sent to computer hardware and software dealers as a mailing list. The club has gotten a number of such requests to provide a membership list to the vendors in order that the vendors can use it as a mailing list. The past policy has been not to provide a membership list to anyone. Some members have expressed an interest to be on such mailing lists and get mail at their home address.

At the May meeting, Reinhold Radke will have a membership list for members to check, first of all to make sure their name and address and telephone is listed correctly (this is for all members) and then to mark the list wether they want to be on a mailing list or not. So don't forget, if you decide to be on the mailing list and all of a sudden get ALL KINDS of JUNK MAIL - it was your decision and no one elses. DON'T FORGET to check the membership list.

ADVENTURE SIG COMING TO THE BBS

By Brian Behler

Are you interested in adventures?? Do you have a modem or access to a modem? If so, we are now forming an Adventure SIG open to all members of PJ-CCC. In the SIG you don't have to worry about having to make it to the meeting because the meetings will be held on the BBS.

When the SYSOP gets the new BBS it will have a section for the members of the SIG. It will contain a "Adventure of the Week" and everyone in the SIG will try and solve it. If you solve it or get farther than the others there will be hints and clues in the special section for SIG members.

Our members will be called "TREKIES", nothing to do with STAR TREK. Our mission is to seek out new adventure worlds and boldly go where no Trekie has gone before!

To join or for more information just leave a message to SYSOP or myself on the "Coco Den" BBS at (215)-866-1805.

Urgent Reminder

BASIC IS TOPIC OF MAY 31 MEETING

TAPE DIRECTORY CONVERSIONS

By Reinhold Radke

The May 1985 issue of RINBOW Magazine contained a terrific tape utility program for those of us with a cassette system. The program, written by Ed Hetzler and modified from a cassette directory program originally published in the Color Computer Magazine. The idea of the program is to index a cassette tape and printout all kinds of information.

I didn't like the way the program printed out even after some minor changes for my Gemini 10X printer and Michael Rex also made some minor changes to run it on his Radio Shack DMP 100.

Both of us couldn't print the first line out in EXPANDED type with the original program and we also changed the graphics line to print a not so heavy line under the column headings.

The changes I made for the Gemini include the following lines:

```
240 PRINT#-2,CHR$(14)" "CT$:PRINT#-2,CHR$(20):PRINT#-2:
    PRINT#-2
280 PRINT#-2,CHR$(27)"@";
290 FOR C=1TO80:PRINT#-2,CHR$(34);:NEXT
300 PRINT#-2,CHR$(27)"E"
```

Michael Rex made the following changes in lines:

```
230 PRINT#-2,CHR$(27)CHR$(31)
240 PRINT#-2,CHR$(31)" "CT$:PRINT#-2,CHR$(27)CHR$(15):PRINT#
    -2:PRINT#-2,CHR$(30)
```

Mike's printout sample is pictured below.

The Cassette Directory is on page 36 of the May 1985 issue of RAINBOW. In fact I'll be using this program to index some cassettes in our club library.

GAMES 1-B

FILENAME	TYPE	COMMAND	CODE	START	EXEC	REMARKS
ZAXXON	MACHL	CLOADM	BINARY	15520	15520	
BLOCHEAD	MACHL	CLOADM	BINARY	9744	9744	
CHARIOTS	MACHL	CLOADM	BINARY	4096	4619	
DEPEND	MACHL	CLOADM	BINARY	7178	7178	
MENU	BASIC	CLOAD	BINARY			
CAROLS	BASIC	CLOAD	BINARY			
INSTALL	BASIC	CLOAD	BINARY			

MAIL CALL

Items received this past month include a donation to the club's library of a Picture Disk (13) from Computize, Inc. of Langhorne, Pa., at no charge to the club. Brochures from Creative Technical Consultants of Cedar Crest, New Mexico, describing their Color Computer Funware items, such as educational programs, games, utilities and study aids; and a brochure from Krueger Technology, Inc. of Arizona, describing their latest discount prices on a variety of IC's.

Also in the mail box was a sample copy of Dynamic Color News, featuring engineering notes on the Radio Shack Color Computers from Dynamic Electronics, Inc. of Hartselle, Alabama. The newsletter costs $1.95 each and a subscription is $15 a year. The purpose of the newsletter according to the editor is to provide instruction in Basic and Machine Language programming, computer theory, operating techniques, computer expansion, plus to provide answers to questions from subscribers. A special feature is to provide specific answers to questions from subscribers for a cost of $10 each.

Dragonfly Writings from Canada sent a flyer describing their newsletter "DIGInews" and subscription forms for club discounts. DIGInews is a "multi-media publication" according to the news release. The major portion of DIGInews is in the form of magnetic signals on cassette tape (most of it is printable by the subscriber and is disk-compatible); some of which is human voice; the rest on paper in various forms accompanying the cassette. It is produced in Canada using freelance writers, artists and computer programmers from across the United States and Canada.

Included in DIGInews are industry and CoCo news, editorials, columns, cartoons, features, programs, computer art and more - even crossword puzzles. Also available are special sections geared to specific audiences within the CoCo community - Kids Only!, the Hobbyist; Home and Family and CoCo Business. It requires a minimum 16K CoCo system with cassette player. Extended Color Basic is recommended for full implementation.

Special club rates for DIGInews is based on a single issue cost of $5.75. If the club is willing to duplicate the cassettes themselves the cost is $4.00 per issue. This offer will be explained at the May 31 meeting.

If you want more information on these items and other mail offers received after the newsletter was printed, see Nelson Russell or Reinhold Radke at the meeting.

GAMES FEATURED AT JUNE MEETING

CoCo games will be the featured topic at the June 27 meeting of PJ-CCC. NOTE - THURSDAY, JUNE 27, 1985 at 7P.M.

Plan to bring in your own games to demonstrate, especially if you wrote one yourself, or use the club's library of games. Because of Game Night, June 27, Paul Eckhart, Club Librarian, announces that no games will be allowed to be signed out at the May 31 meeting.

So have some fun by coming to the June meeting and REMEMBER THURSDAY, JUNE 27, at NCACC. The reason for the Thursday date is because the college is closed the last Friday of June and JULY. This also means that the JULY meeting is on the last Thursday (July 25).

NEXT MEETING
MAY 31 — 7 PM

6809 EXPRESS
PENN - JERSEY COLOR COMPUTER CLUB