



HATHAWAY FAMILY PLANS FOR NORTH CAROLINA MOVE!

CoCo~123 Press Association

Glendale Heights, Illinois Fall 1990

Volume X, Number 3

MEMORY	MAP

ROUTINES		A	E		21	Æ	ESS
Glenside Officers							
CoCo~123 Information							
CoCo~123 NEWS Contributions							
Contributors to this Issue							
Club Meetings							
DATA INTERRUPT							
Trea\$ury Note\$							
Secretary's NotePad							
SYSOP's Twisted Pair	•	•	•			•	5
NEWS ITEMS							
Items For Sale Through the Club	•						5
Special Deals and BuysArticles:	•	•	•	•	•	•	6
ATLANTA COCOFEST							
OS-9 Disk Mailing List, A REVIEW							
Classified Ads	•	•	•		•		10

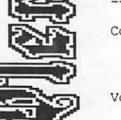
CLENSIDE CLUB OFFICERS

Here is the list of 1990 club officers and how to contact them. The club has four strong SIGS, Tandy Color Computer 1, 2, 3 and OS-9. If you have questions concerning these computers or OS-9 call one of the officers. Area code C=312, S=708.

POSITION	NAME	PHONE	PRIMARY FUNCTION
President	Ed Hathaway	S462-0694	The buck stops here
Vice-President	Len Zielinski		Meeting Planning, etc.
Secretary	Howard Luckey	S747-0117	Records and Reporting
Treasurer	Greg Pietrucha	S830-1855	Dues and Purchasing
Editor	Eddie Kuns	S820-3943	Newsletter coordinator

Copyright(C)1990 Glenside Color Computer Club of Illinois

CoCo-123



CoCo~123 Information

CoCo~123 is the newsletter of the Glenside Color Computer Club of Illinois. We are committed to put out at least four newsletters a year. For an annual fee of \$12.00 you can become a GCCC member with full membership privileges. Send your dues to:

GREG PIETRUCHA GCCC TREASURER 1349 WHIRLAWAY LN HANOVER PK IL 60103

The Glenside Color Computer Club of Illinois is pleased to exchange newsletters with other Color Computer user groups at no charge. If you desire to reprint any articles that appear here, please provide credit to the author and this newsletter.

We encourage your user group to copy this newsletter and distribute it at your regular meetings to your members free of any charge as we believe that this will encourage better meeting attendance. If you are a user group that feels as we do, please let us know in your newsletter so that we might do this for our members and keep our attendance up.

Articles appearing in this newsletter can be obtained by downloading this newsletter from our GLENSIDE WEST BBS. You may reprint it using this means if you wish.

CoCo-123 CONTRIBUTIONS

If you would like to contribute an article to the newsletter, upload a file to GLENSIDE WEST called GLENSIDE.ART. If you have an AD for the BBS and newsletter UPLOAD a file called COMPUTER.ADS. If you have NEWS to POST about your group, UPLOAD a file called POST.NWS.

These files are gathered by the BBS computer and downloaded to the editor. If you need help contact the SYSOP by E-MAIL,

2

mail, in person, or by phone:

BOB SWOGER GLENSIDE WEST SYSOP 613 PARKSIDE CIR STREAMWOOD IL 60107-1647

It is preferred that you call: H708/837-7957 or W708/576-8068

CONTRIBUTORS TO THIS ISSUE

Gene Brooks John Donaldson Ed Hathaway Howard Luckey Bob Swoger, K9WVY

CLUB MBETINGS

The Glenside Color Computer Club of Illinois meets on the second Thursday of each month at the Glendale Heights Public Library in Glendale Heights, Illinois from 7:30 to 9:00 PM.

A social get-together always occurs afterward at a local restaurant.

DATA INTERRUPT

PICNIC REPORT

CATUG members John Donaldson, Al Feng, and Nazir Pashtoon were among the guests that attended the picnic hosted by the Glenside Computer Club on a glorious day with great weather, games and great food at Bob Swoger's home.

Glenside supplied the brats, dogs and burgers, and Casey did the cooking, (Yumm!) let's make him chairman of the cooking committee!

Bob and his gracious wife gave us a very warm welcome and the Glenside Club readily accepted the CATUG delegation into its midst. Background music was provided by hooking up one Color Computer through a MIDI to two keyboards plus a monitor! The music was provided by the club president who sells software through an outfit called Second City Software. Small world: The musical selections and software, called UltiMusE III, were written by an old friend of John Donaldson, Mike Knudsen.

Thanks, Bob! Thanks Glenside!

John Donaldson, Secretary Chicago Area Timex Users Group

TREASURY NOTES

e,

As of 11/21/89 the balance in the checking account is \$250.49 The balance in the savings account is \$56.15

The current paid membership stands at 59.

For the year 1991 forward, please be ready to include your ZIP+4 code when you renew your membership. It will speed up the mailing of notices and newsletters. Thank you!

Greg Pietrucha, Treasurer Glenside Color Computer Club

SECRETARY'S NOTEPAD

OCTOBER MEETING

The meeting this month was in three parts. The first part dwelt with dues. The treasurer, Greg Pietrucha, proposed setting up a new dues payment system for the club. After some discussion the club approved a payment program so that all present members of the club will have their dues due on January first and payable by the first meeting. Any present member paying late will still owe the \$12.00 for the year, and any new member joining will pay a prorated amount. This should simplify the bookkeeping a lot.

The second part dwelt with a report on the trip to the Atlanta CoCofest. Five of us six festers were at the meeting and we each gave a report on our impressions. More on this later.

The third part dwelt with demos. There were three of them. The first one was a game called "Marty's Nightmare" a game from Steve Bjork written specifically and only for the CoCofest. It's a PacMan type game with a little human figure running through a maze wiping out dots and whenever it hit a chip a voice says, "I have a hardware problem." There are other items to run into and other comments. One item is a cup of coffee, with no comment, but the figure speeds up for a few seconds.

The second demo was a program called "Master Catalog (3)" а disk cataloging program. This is apparently an upgrade to the CoCo3. From what was said and shown there has been a great improvement. The person doing the demo (Sorry I didn't get the name.) said that when he used the old program and had a lot of disks to catalog he could start the sorting process and that maybe 10 to 12 hours later it would be done. It did the job but it was slow. During the demo the demonstrator made enough copies of a sample disk to put around a 150 files in memory and then he did a sort that was over in about 30 seconds. Also each disk was copied very quickly. The program seems to be a very fine one for cataloging your disks. I see by the ad in The Rainbow that the program has some other features, it is sold by Second City Software for \$19.95, and the CoCo 1 & 2 version is available also. If you need or want to catalog your disks this could be a program for you.

The third demo was the "Coloring Book." This is a new program for the CoCo3 and I think it takes 512k of memory. It is for children from ages 3 to 7. I think the program has some impressive qualities that are hard to describe and are better shown. A set of pictures comes with it and some others set will be coming in the future including the alphabet, animals, etc. It's just like a coloring book except it is on

the computer. The child can learn the same as a coloring book and at the same time begin to learn how to use a computer. This program is also sold through Second City Software.

As you can read this months meeting was a full one.

IN LIEU OF OUR MISSING SEPTEMBER MEETING REPORT WE SUBMIT HERE THE MINUTES OF THE CHICAGO OS-9 USERS GROUP SO THAT YOU MIGHT KNOW HOW THE REST OF US ARE DOING!

This group is small at this time and very informal. In spite of this and with no newsletter or announcement of meetings a few of us manage to make it to meetings held of the fourth Thursday of the month at the Glenside Public Library.

At this meeting we had our first view of the MM/1. It was model number 0000 or 0001 as I would prefer. This is the one designed by Kevin Pease and it was his machine. It had two boards, a 3" 40 meg hard drive, and a 3" floppy and could be contained is a case about the size of one that could contain two full height floppy drives. It didn't have the nice look that the MM/1 will have when it is bought from IMS, and it didn't have all of the software that is suppose to come with the machine.

It did, however, have the professional OS-9 operating system and a few other programs. Some impressions I have from that short experience are that the operating system has all of the same modules that come with Level-II but with a lot more options for each of them plus some modules that don't come with Level-II. It did have windows like the CoCo3 except they are all graphics screens and that you move from screen to screen by pressing a single key for that screen, that way you don't have to go through say five screen to get to the one you want. The

machine is fast compared to the CoCo and we were able to play some digitized sounds with it.

This is the first time I have known that the MM/1 has only graphics screens, and I am wondering what this might mean in the future. I read some place that consumer electronic products will become more and more computer oriented, meaning that some computers will be electronic products like Walkmans. Just possibly the with its graphics MM/1 capabilities will be a step in that direction from the computer side. For one reason, the 68070 chip is from the Phillips Corporation which is one of the big backers and developer of Compact Disk Interactive a computer based video system for the home user market. For another reason Interactive Media Systems, maker of the MM/1, keeps touting the graphics capabilities of their machine. I am very interested in the possibilities.

NOVEMBER MEETING

The really, really, really big news from this meeting is that Ed Hathaway, the president, will be leaving. His wife has received wonderful а opportunity for her career in Greensboro, NC. This means, of course, that the club has to prepare to go on, and to find somebody to replace Ed. I think he will be hard to replace because he has had so much to do with the success of the club as far as I can tell. Ed won't be leaving until after January first so the club does have until then to get things set up to continue. The important first step will to nominate and elect a new president and that will start and perhaps be finished in the December meeting.

I hope the club can work things out because it is still a very active club, and it is also the club that is the guest host to the Rainbowfest.

After that announcement the rest of the meeting was a bit deflated for me. Besides that, the demo for the night was the same at the one given at the Chicago OS-9 meeting, the MM/1.

Howard Luckey, Secretary Glenside Color Computer Club

SYSOP'S TWISTED PAIR

٠

!!! REMEMBER !!! We now have 3 24 hour BBSs and encourage you to exchange mail and contribute to the Download Section. Use it and have fun!

*	PinBall BBS	*
*	708-428-8445	*
*	S&V BBS	*
*	708-352-0948	*
*	GLENSIDE EAST BBS	*
*	312/745-1387	*
*	GLENSIDE WEST BBS	*
*	708/576-7072	*
*	Type at the > prompt:	*
*	MOTOROLA then GUEST	×
*	BYE to log out	*
*	Commands are: DIR, TYPE,	*
*	UPLOAD filename.type	*
*	DOWNLOAD filename.type	*
**	******	**

NEWS ITEMS

COOK COUNTY CLUB Meetings on the forth Wednesday of the month in the Park Forest Library 7:00 to 9:00 PM

Howard Luckey did a demo of the OS-9 Disk Mailing List program from Bob van der Poel Software. This is a very fine program for this special kind of need.

The club would like the members to know that we do have a library of programs under RS-DOS and that Marty is cataloging them and preparing them to be available to the members.

"The demo for our next meeting is going to be very interesting. The plan is to connect two computers using a null modem and then run some terminal programs to help learn about how they work and how to use them to call bulletin boards. I expect that even if we don't get everything to work just right I will learn some useful information. I hope you can join us and help out and /or learn."

ITEMS FOR SALE THROUGH THE CLUE

Ed Hathaway is the chairman for the following: MUSICA RAM DISK (CC3 Only) Speech Systems\$5 COCO 3 MEMORY TEST Speech Systems\$5 HARDCOPY (for DMP-105, DMP-200 Gemini 10X or SG-10) Computerize\$10 TERMTALK DelSoftware\$5 REALESTATE INVESTMENT Petrocci Freelance\$10 ORDER ENTRY SYSTEM Mark Data\$25 CHECK LEDGER SYSTEM DISK COLORCOM/E Eigen Systems\$10 DATAPACK II Cer-Comp\$20 THELASTWORD (OS-9)\$20 DATABANK MANAGER Computerware\$10 OTERM New World Technologies ... \$15 FLEX OPERATION SYSTEM Frank Hogg\$30 GRAPHICOM PART II Computerware\$10 DISK COLORCOM/E V2 Eigen Systems\$10 COLORCOM/E ROM PAK V3 Eigen Systems\$5 ELITE WORD PbJ Version\$25 ELITE COMM PbJ Version\$10 ELITE WORD (OS-9 L1)\$25 VIDTEX w/PERSONAL COLOR RADAR: CompuServe\$2 FORMAKER 1.0 Challenger Software\$10 TRSCOPY (OS-9 L1)\$10 ***********************************

CLUB POLICY

REGARDING SPECIAL PURCHASES

Each special buy will have a CHAIRMAN who will coordinate ALL ACTIVITY regarding a purchase. The CHAIRMAN will publicize the special buy through the newsletter and at the GCCC meetings. All interaction will go through the CHAIRMAN and all checks will be sent to him, payable to the CHAIRMAN.

When the purchased goods arrive, the CHAIRMAN will see that they are distributed. All special buys must be PAID IN ADVANCE because the GCCC does not have enough funds to handle all of the buys without cash flow problems. So you MUST SEND A CHECK TO THE CHAIRMAN BEFORE THE DEADLINE or you will not be included in the special buy. The CHAIRMAN will contact the members on his interest list regarding deadlines and purchase price or alternately, it will appear in the CoCo 123 newsletter.

Greg Pietrucha is the chairman for the Glenside Disk of the Month Club (GDMC) which provides members only with one disk of assorted monthly Public Domain software on disk media storage. The member shall pay a total sum of \$12 for 12 disks before receiving their first issue. All issues of GDMC will be distributed at the start of each monthly Club Meeting. At no time will Glenside distribute, mail, or make available GDMC other than at monthly meetings. GDMC is a non-refundable program. Back issues of GDMC will be made available at the monthly meeting for a fee of \$1.50 per issue. Glenside reserves the right to edit, modify and/or change the policies regarding GDMC providing that a 30 day advance notice is posted in this publication or at a meeting.

ATLANTA COCOFEST

ARTICLES

Howard Luckey

If you have been reading these newsletters you know that I went to the Atlanta CoCofest October 6 & 7.

I loved the fest. From the first Rainbowfest that I went to a few years ago, to now I have really enjoyed them. Compared to other computer shows the fests are smaller, I know some of the people involved, and I love the CoCo.

Eight of us went to this fest in two cars. In car one, ladies and gentlemen, we have Ed Hathaway, the owner of Second City Software, president of the Glenside club and a vendor at the fest; Chris Hawk, programmer, hardware person, club member and owner of Hawksoft; Kevin Pease, programmer, hardware person and chief designer of the MM/1; Mike Knudsen programmer, club member and author of UltiMusE III, the ultimate music editor for the CoCo3; and myself, club member. In car two we have Gene Brooks, club member, hardware person, his son Dan a budding artist; and Eddie Kuns, PhD. candidate, co-manager of the CoCo SIG on Delphi, programmer, author of KBCOM a level II communication program, and club member.

The trip down was very nice. We did get started about two hours late, and since the trip is about fifteen hours we got to Atlanta around 10:30 PM Illinois time or 11:30 PM their time. Fortunately the people sponsoring the fest were still in the showroom so that we were able to move stuff needed by Second City for their booth from the car to the room so that things could be set up first thing in the morning. On the way down I did hear a lot of conversation about the MM/1 and some of the personalities

involved in bringing it to market.

The structure and format of the fest was pretty much like the fests sponsored by The Rainbow. There were twenty three vendors including the Atlanta Computer Society, and twelve seminars. The vendors included some of the old standbys such as Burke and Burke, Dansoft, CocoPro, and others, and some new ones Peripheral such as Technologies, Carl England, and others. In addition to the exhibitors there were twelve seminars. In my opinion the sponsoring club did a very good job of setting up the seminars and making sure that they all went smoothly. I attended nine of the seminars. I am not going to report on everyone of them here. I will report on the ones in which I learned something new.

One of them was the one given by Ed Hathaway about desktop publishing on the CoCo. Ed is in the business of desktop publishing and I found his presentation informative about that kind of publishing and also about using the CoCo. Ed gave some of the principles of making presentable documents, and mentioned some of the software available for the CoCo. One thing I was surprised about is that we CoCo people can use a laser printer with at least one of the DTP packages and that is Newspaper Plus. It was a job well done.

Another interesting seminar given by a representative from the Chicago area was the one given by Mike Knudsen the author of UltiMusE III the music editor for the CoCo3 under OS-9. Mike's seminar was very well attended and he did a good job of demo-ing his program especially showing the enhancements in the latest upgrade. Unfortunately I am not that well versed in music so that a lot of what was presented I didn't understand. I have learned that quite a few professional in the music business are using the editor with its ability to do MIDI with the CoCo-3. I was impressed.

A completely different seminar was the one given by 1 Anzalone from Signetics, Phil the company that makes the 68070 chip. His presentation was quite technical and a bit beyond my level of knowledge. For those who are interested I will bring some of the handouts to our next meeting and you can take a shot at understanding them. From what Phil said the chip and extensions of it have a lot of capabilities.

Another very interesting meeting was the one lead by Cray Augsburg, managing editor of The Rainbow and Greg Law, technical editor. The topic was "What the Future Holds in the Pages of Rainbow." Items of interest include: a request to stop rumors they only hurt the magazine and the CoCo community, subscriptions have gone up in the last month or two, the magazine will continue to have decent number of pages committed to OS-9, the Chicago Rainbowfest is still on, and there is a triangle of the Rainbow, vendors, and us the users which does not include Tandy. There was some additional conversation later in the evening after dinner.

Another different seminar was the one called SURPRISE !!!. The presenter was suppose to be Doctor Marty Goodman. He never made it, so the sponsors organized an impromptu session involving the three new computer companies (That's right three.). Two of them we know about, Frank Hogg Labs with the TC9 and the kbus, Interactive Media Systems, Inc. and the MM/1. The 'new one is Peripheral Technology. They have been making 68K computers for a number of years and just now moving into the CoCo community. Each of the companies talked about their computers and suggested that each of should make our own decisions about which one is right for us. Say, there's a

new idea. One thing I found very interesting is the the person from Peripheral Technology mentioned something about beginning to advertise in The Rainbow. He said that they do very little advertising in print and rely mainly on word of mouth. I believe all of this add a lot excitement to the CoCo community, and I hope we can continue to grow.

The seminars of seminars for a lot of the attendees was the one held by Kevin Darling on OS-9/OSK. This one started at 6:00 PM on Saturday and was open ended as far as time. I don't know when it ended after I had been there about two hours because most of our group went to supper. Kevin had a lot of war stories about the CoCo, OS-9, the development of the new computers and the writing of a windows interface for them. One story was about how a Pontiac plant in Michigan used a CoCo for a week when the OS-9 computer broke down and the didn't want to wait for it to be repaired. A most important item for many of us with CoCos is that the OS-9 upgrade that Kevin and others developed just become available. may Apparently when Tandy dropped the CoCo the person that could have given the go ahead to offer the product was no longer around. I hope this turns out to be true.

Well that is some of the stuff about the fest, if you want to hear more come to our next meeting on October 24th. In the future I will demo some of the software I bought one being "La Belle Lucie."

The fest ended on Sunday at 3:00 PM (2:00 PM our time) and we didn't leave until about 5:30 PM our time because Kevin Pease had to do some hardware hacking with the other Kevin. I never did find out what it was all about. The trip back was a lot different because for most of the time we had clouds and rain and we were mighty tired. In fact we stopped just south of Indianapolis and slept a little bit. Doing that didn't help me that much. I got home about 12:00 PM Monday.

OS-9 Disk Mailing List

A REVIEW by Howard Luckey

The program:

OS-9 Disk Mailing List dm19

The company:

Bob van der Poal Software PO BOX 355 PORTHILL ID 83853

The price: \$24.95

The features of the package include the following: names sorted at all times, immediate access to any name even in large files, ability to create formats for labels and printing lists, able to set parameters for output by alphabet or alphabet and zip code, and sorting can be maintained by name and zip. The program can handle a mailing list as large as you can hold on your system (absolute max of 30,000) but 5000 names is the maximum recommended size.

I have used this program but for a very small mailing list, our club, so I have never tested it to its limits. By the way the program does require a CoCo3 with 512K of RAM and the Level-2 OS-9 operating system.

You start the program by typing dml9 on the command line. Then the program searches the current data directory for files ending with ".DMLdata." These files are mailing lists and there can be up to nine of them at one time. Once these are detected the program presents a small menu from which you can select which list you want to work on plus the option C to change directories or N to start a new file. Then the screen clears and in the

upper left corner and in reverse video the following menu appears:

A, I, F, L, M, S, C, W, R, O, X

These letters mean, in order, Add names, Intensive search, Find record, List or report, Merge with ASCII file, file Statistics, Change print mask, Write current mask, Restructure file, Open new file, and exit mailer. The Find record has a submenu for moving through the list for deleting, editing and printing individual records. A nice feature of all of the menus is that if you hit any letter not on it a help window is shown which lists the menu and gives a statement of what each letter means. A selection can be made from there.

When you select A you have a chance to enter the First name:, Last name:, Address:, City;, State/prov;, Country:, Zip code:, Phone:, and Memo:.

These are listed from the top of the screen to the bottom and while on an item there is a reverse video area open for editing your input. Each space can be edited using arrow keys and combinations of shift, control and arrow keys.

After making the entries a submenu appears allowing you to Edit this entry, Continue adding records, and X for Exit to the main menu.

Oops! I just found out how to get a fatal OS-9 error and exit the program. As I am writing this I have dml9 running in another window. I typed in a scratch name, entered into my list of names and then tried to delete it. This is part of the submenu for the Find option. I keyed y for yes and hit the enter key, and that was my mistake. Once you respond to a question just wait for the program to work. A caution about delete is that it cannot be restored, but the space is kept and used when new records are entered.

Anyhow, once the list is set up you will want output and this is done with the L command. Here there are quite a few options as to which records to access. This is done by asking for "data for matching" and the options can be by first name, or last name, or city, etc plus operators such as =, <, >, !,-, and combinations of these so as to get just the records you desire. The output can be to the screen, which is nice so that you can see if you are getting what you want before printing, or to the printer. The format of the output is determined by the print mask you are using. Here again there are many options so that you can print mailing labels, names and phone numbers, names and address, etc. These masks can be edited, saved, rewritten, and reused.

With the above I think I have given you and idea of the main features of dm19. I have left out some of the finer details that make this a very fine program for what it does. The documentation is on regular sheets of paper printed on one side, in double columns, and I found it adequate. I did struggle a bit with learning the process of how to select which records to print and in the process of setting up print masks. Perhaps more examples would be useful especially examples that would show you what the output will look like once you have done what you think wanted to do. On the other hand at this price I don't expect to have fancy documentation.

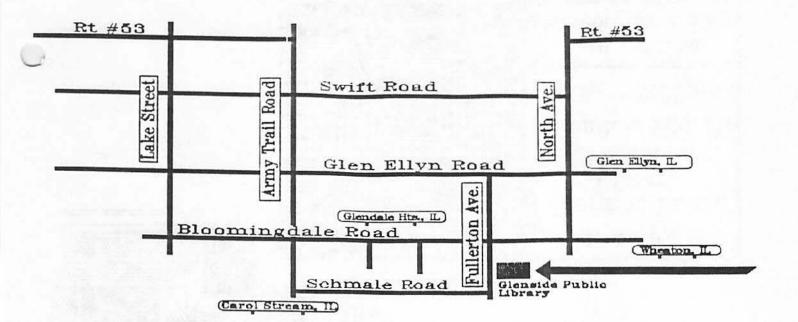
This product would be very useful of anyone with a large mailing list such as a group, church, or a small business, and I recommend it.

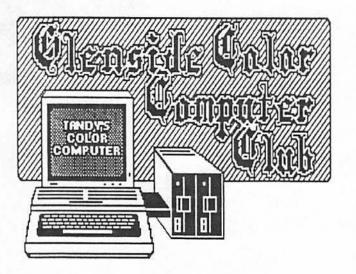
Ah, my first review, any feedback from you will be appreciated.

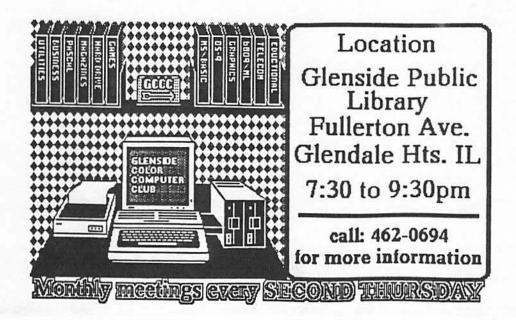
CLASSIFIED ADS

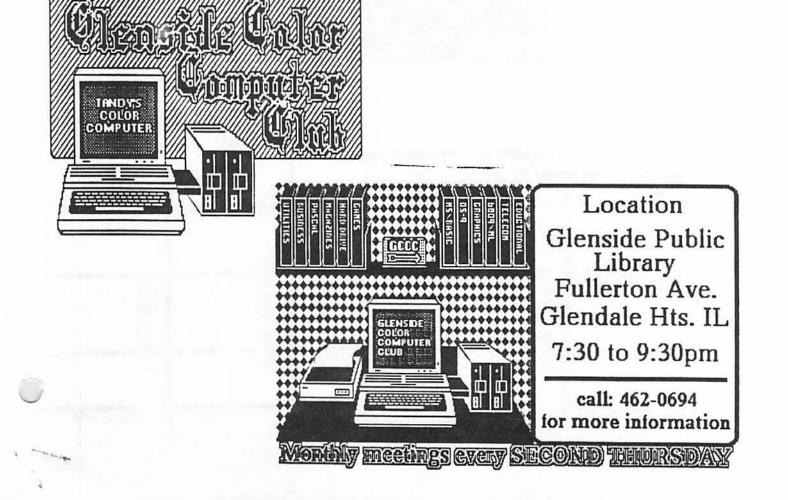
To put an AD in the Computer related section of the BBS, put a file in your account with the filename.filetype: COMPUTER.ADS ! ! ! Our ADS are free ! ! ! ! AD BY: AL MAHANNA ON 900222 40 MB HARD DRIVE FOR COMPAQ 386 ZOE COMPUTER 29 US AVERAGE SEEK TIME \$350 OR BEST. CALL AL MAHANNA H708/259-8349 H708/392-2982 or W708/576-4515 AD BY: Terry Starai ON 900320 Radio Shack TRS-80 (CC2) TDP System 100 PC MPI Printer Radio Shack Cassette Recorder Tandy DCM-3 Modem Set of Deluxe Joysticks Set standard Joysticks TDP System 100 Mini Disk Drive Radio Shack CC Mini Disk Drive Miscellaneous cables and Manuals All the above items work fine and are in good shape. Package Price = \$250 Terry Starai W708/576-4404 AD BY: MIKE CARRINGTON ON 900810 Turbo C 2.0 _____ Original books and disks for Turbo C 2.0 from Borland International. Fast compilation and easy to use. Includes graphics library. \$55. Mike 708/576-2006 AD BY: JIM PEULECKE ON 900205 TANDY MODEL 100 PORTABLE COMES

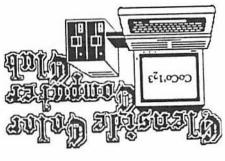
TANDY MODEL 100 PORTABLE COMES WITH BASIC AND THREE APPLICATION PROGRAMS BUILT IN. EXTRAS INCLUDE 32K OF RAM, PROTECTIVE 'SKIN' OVER FRONT, SOFT CASE, HARD CASE, AND OF COURSE, BUILT-IN MODEM. !!! LIKE - NEW CONDITION !!! .\$350.00 OR BEST OFFER..... CONTACT JIM PEULECKE W815-744-1545 or H815-886-4648 FOR SALE: AUG-90 IBM PCXT compatable computer. Wugo, made in Taiwan. Completely 100% IBM compatable. 640K RAM, 8 Slot Motherboard, large keyboard, 2 Half Height floppy drives, one half height 20 Meg hard drive, Multi-function card w/serial port and clock. Game card and joystick. Mouse systems mouse, 1200 baud modem, RGB Color Monitor, Epsom MX80 w/Graftrax serial and parallel printer (has Hanzon card for Macintosh compatibility too). Tons of applications, documentation and games. Other extras. Whole thing \$950. Ray Dubiel w708-576-5862 or h708-991-1987











STREAMWOOD, ILLINOIS 60107 613 PARKSIDE CIRCLE