

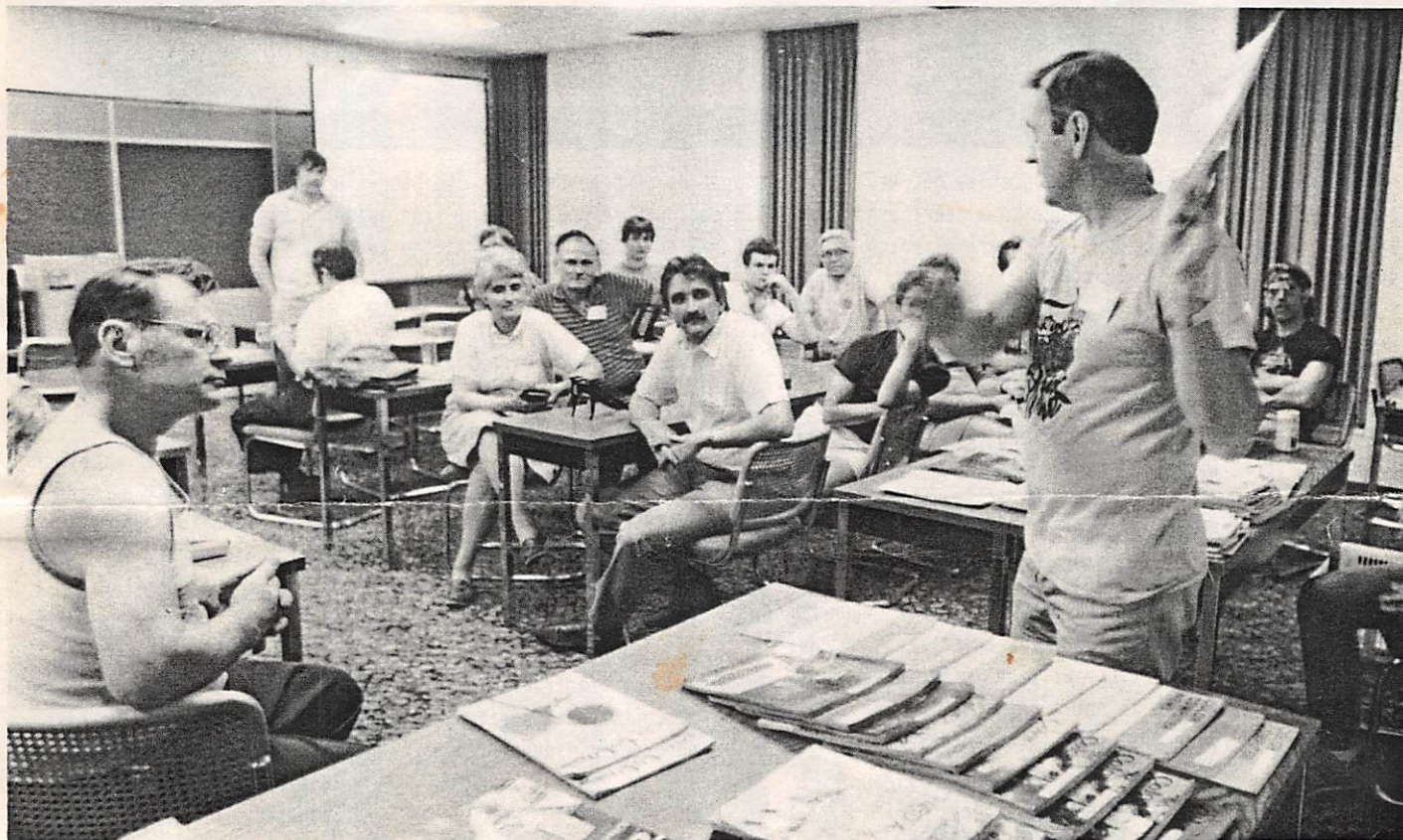
6809

EXPRESS

The Official Publication of the
PENN - JERSEY COLOR COMPUTER CLUB

VOLUME 4 NUMBER 6

JUNE 1986



MAGAZINE AUCTION A HUGE SUCCESS

Penn-Jersey Color Computer Club Librarian Paul Eckhart gets into the swing of an auction at the May meeting of the club. The auction of duplicate computer magazines from the library raised a total of \$43.10 for the club treasury according to Tom Castronuova, treasurer.

The now extinct "Color Computer News" magazines drew the heaviest bidding among the members, with 6809 EXPRESS Editor, Reinhold Radke, out-bidding all to get most of those issues. Another magazine, a "Color Computer" issue sold with the highest bid of \$4.

Paul really got into the act as you can see by the photo at left. He should be complimented for doing such a fine job. Now we know what teachers do during the summer "vacation" months.

NEXT MEETING IS FRIDAY JUNE 27, 7 PM



Richard Kravitz and Paula Behler display get-well banner signed by club members for Jim Mangan who was in the hospital for a short time last month due to a heart condition. Jim is now home and is doing fine spending his time on the CoCo and CoCo Den, the PJ-CCC Bulletin Board of which he is SYSOP. Glad to see you back at the keyboard Jim and continued successful recovery.

MINUTES OF MAY 30, 1986

President Roni DeGarmo opened the May meeting of the PJCCC by welcoming the members and three guests. The treasurer's report was given by Tom Castronuova. Reinhold Radke reported on the newsletter exchange and a new color computer magazine "Spectrogram."

OLD BUSINESS

The club picnic will be held on July 27 at Hugh Moore Park in Easton. Come as you are between 12:30 and 1:00. More information and directions will be forthcoming.

Because the soda sale is not a money making proposition it was voted to raise the price to seventy-five cents on a trial basis.

T-shirts will be ordered. Sign up with Paula Behler if you would like one. The cost will be between \$3 and \$5.

Through the courtesy of Jim Mangan the club library now has 17 public domain disks with 254 different files. Thanks, Jim!

NEW BUSINESS

The club received a letter from NCACC asking for a donation. It was decided to send a donation of \$60.

Jerry Behler reported that Jim Mangan is in the hospital. UPDATE 6/20/86- Jim is now at home, recovering

NEW TYPE OF IC CHIP

The McDonnell Douglas Corporation said it had developed a new gallium arsenide integrated computer chip for use as a microprocessor. The company said it believes the computer chip was the first of its kind to be built and tested successfully. It said the new chip, called the MD2901, could process information as fast as a conventional silicon chip while using only one-tenth the power. Gallium arsenide has been called the likely successor to silicon in microelectronics because it transmits electricity faster.

very well. Everybody's wishes and prayers have been answered.

Disk-O-Tiers were sold to club members for \$5 each.

A discussion on the new constitution began with Tom Roginski and Chester Belsky making the motion that we accept everything except Article 2. After a lengthy discussion about the direction of the club with regard to color computers, it was voted to accept the new constitution as it is written. Jerry Behler and Tom Roginski will do research on expanding the club.

The meeting was adjourned at 8:36 to make way for an exciting first event - the PJCCC Auction with Paul Eckhart, Auctioneer. Jerry Behler then presented his talk on modems.

Submitted by Mary Brown,
Secretary, PJ-CCC

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.	- Jerry Behler
Editor	- Reinhold Radke
Secretary	- Mary A. Brown
Treasurer	- Tom Castronuova
Librarian	- Paul Eckhart
Publicity	- Nelson Russell
Bulletin Bd.	- Jim Mangan
West Coast	
Correspondent	- Tony Cappellini

PJCCC assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of any information contained in this newsletter.



CLUB PICNIC IS SUNDAY, JULY 27

The first annual Penn-Jersey Color Computer Club Picnic is set for Sunday, July 27, 1986 at Easton's Hugh Moore Park in Glendon.

Members should plan to arrive at the park between 12:30 and 1 p.m. Directions to the Glendon area of the park are printed with this story.

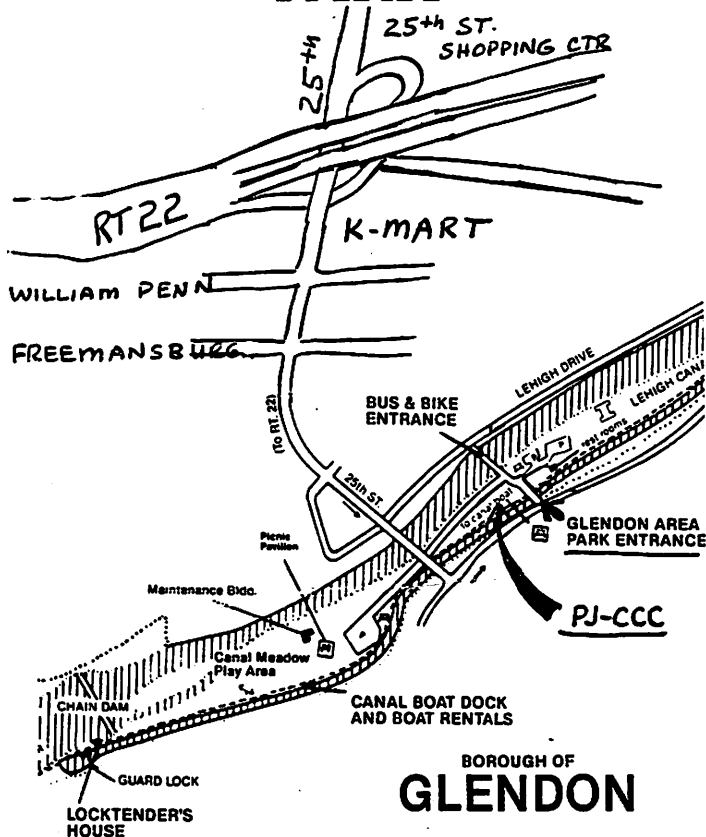
Since no majority of members showed an interest at the April meeting, the executive committee decided not to rent a pavilion but have a "come as you are" get-together. This means, bring your own food and grill.

The park, features Canal Boat rides pulled by mules on the Lehigh Canal, lock tender's house and museum and great picnic facilities by the quiet Lehigh River.

The canal boat ride costs \$3 for adults and \$1.50 for children (5 -12) and includes admission to the locktender's house. The boat ride is on the JOSIAH WHITE, a mule-drawn copy of an original canal boat, with seating for 88 persons. On Sunday, the boat rides are scheduled at 1, 2:30 and 4 p.m. and is approximately 45 to 60 minutes long.

So plan now to attend the first get-together SUNDAY, JULY 27, 1986.

HUGH MOORE PARK



NULL MODEM CABLE

by Jerry Behler

Recently, while working and evaluating a Bulletin Board Service (BBS), I needed a method to watch the BBS in action from both the BBS and the caller's view. Needless to say, I couldn't be at two places at once.

Since there are presently four COCOs in my home, I decided to hook two of them together thru the SERIAL PORT and then test the BBS. What I needed was a NULL MODEM CABLE or NMC for short.

What does the NMC do? Simply, it allows two computers (in this case), to communicate with each other using a terminal program on each computer. The cable hookup "fools" the computer into believing that a MODEM is hooked up to each computer and they are communicating over the telephone lines. They are so easily fooled!

The cable is easy to make, with most parts available from your local "Radio Shack" store. I have included a schematic diagram below.

Notice the nine volt (9V) battery in the diagram? It is used to simulate the voltage level sent by the modem to the computer whenever a CARRIER DETECT is sensed. I recommend using a standard 9 volt battery connector with leads (RS# 270-325), that way the battery can be removed when it is not needed. It also will allow you to direct connect two COCOs together to play the "PS1" game sold thru "Tom Mix Software". Disconnect the battery when using "PS1".

For the connectors use R.S. #274-007 and for the wire any 4 conductor will work such as telephone wire. Shielded cable may be required to prevent any noise if length of cable is over 5 feet in length.

NULL MODEM CABLE

COCO 'A'		COCO 'B'
PIN		PIN
2	-----	4
3	-----0-----	3
	1	
4	-----}	2
	1	
1	--0--}	1
	1 1	
	1 1	
	+ -	
	9V	
	battery	

NEXT MEETING

IS FRIDAY

JUNE 27, 7 PM

FEDATA INFO NETWORK IS INTERESTING

By Reinhold Radke

The FEDATA Information Network B.B.S. is a very interesting BBS with FREE On-Line Access 24 hours a day, 7 days a week.

The BBS phone number is 216-476-1151

The I.D. No. is 106011 (for PJ-CCC members)

The Password is TRSV (for PJ-CCC members)

300/1200 Baud/ Full Duplex / 8 Bit / No Parity / 1 Stop Bit

The following is my logon to the FEDATA and I then highlighted some of the categories and sub-topics with these items as downloaded from FEDATA.

When you get a chance try the BBS and I'll promise you that you definately will find something of interest.

WELCMHE\$!D THE FEDATA NETWORK!

Does your system require linefeeds? Y/N

Y

USER ID?

106011

THANK YOU!

ONE MOMENT PLEASE!

PASSWORD?

LOGON ACCEPTED!

Connected: AA-17

-0053..

FEDATA INFORMATION NETWORK

copyright (c) 1985,1986

One Moment Please:

Allocating a time-block

Completed:

Thank you for waiting.....

Status:4448

SYSTEM COMMAND LIST FOLLOWS!

Status:4403

Press << I >> For INFO On The System / Then ((RETURN))

Press << T >> For TIME Limit - U.C.T. / Then ((RETURN))

Press << R >> To READ Main Topics / Then ((RETURN))

Press << O >> To ORDER Documents/Reports / Then ((RETURN))

Press << B >> For BYE-BYE:LOG-OFF / Then ((RETURN))

Press << CONTROL & C >> Keys At The Same Time To << CANCEL/STOP >>

Command please?I

INFORMATION REQUESTED!

Status:47403

The Fedata Info-Net is a private information service. We provide a service, for information, documents, reports and manuals.

All documents etc., are UNCLASSIFIED !

Some, are limited in supply.

Many documents contain sensitive or technical material.

We only accept orders, from American or Canadian citizen's, or

corporations with less than 10% ownership by foreign investment.

<< PRESS RETURN TO CONTINUE >>

There is no charge while using this section of the Fedata Network.

However, there is a time limit.

Please check the << TIME >> feature at log-on

to view the current limit, it may vary daily.

A 5 minute default is in the system and you will

be informed when 5 minutes remain on your time block.

Item cost is at U.S. currency rates, and is the TOTAL cost.

No extra charges for shipping, handling or credit cards.

State sales tax, for Ohio residents is not included.

<< PRESS RETURN TO CONTINUE >>

The Main-Topics, contain a variety of subjects.

From the, F.B.I.-"Science of Fingerprints",

N.A.S.A.'s-"Living & Working in Space", to

"The National Register of Historic Places".

We suggest that you select two or three topics to explore per session.

If you jump from topic-base to topic-base,

the information may start to "run together".

A methodical search will yield the most information.

Thank you for joining us, we hope your visit is enjoyable!

PLEASE: KEEP FEEDING YOUR BRAIN !!!!!!!

Command please?

PLEASE SELECT FROM...

Bye, Help, Info, Order, Read, Time

Command please?R

MAIN TOPICS SELECTED!

Please

jot down TITLES, ITEM NUMBERS & PRICES.

This will make ordering easier!

MAIN TOPICS list follows:

1. Aviation / F.A.A.
2. Video Cassettes
3. Business/ Commerce
4. Military / Defense
5. Education
6. Energy / Conservation
7. General Government
8. Justice / Judiciary / Law
9. Employment
10. Transportation
11. Satellite Television

12. International / State
13. Science / Technology
14. Aeronautics / Space Exploration
15. Medical / Health/ Human Service
16. Agriculture / Farming
17. Biographies
18. Computers / Computer Science
19. Environment / Weather
20. Travel

Under each of these topics, there are four or five sub-topics which separate the main topics in those categories. For example, under video cassettes, the five sub-topics are:

1. General / Miss.
2. Places
3. (off line) When I logged on this was off-line
4. People
5. Events

Under No.1 (General / Miss) one of the video cassettes for sale is:

YESTERDAYS WITNESS: AMERICAN NEWSREEL
 #729490-P VHS
 #729482-P BETA
 \$49.95 52 min.

History of American Newsreel includes footage of exciting events from silent days to mid-century. Narrated by Ed Herlihy, Lowell Thomas and Von Zell.

Under MILITARY / DEFENSE

1. Directory / Lists.
US GOVERNMENT PURCHASING and SALES DIRECTORY
 No. 045-000-00226-8-6
 \$11.99 200pg.

Listing of products and services purchased by military and civilian departments with data on the offices that purchase them.

ARMED FORCES RECIPE SERVICE
 No. 008-040-00089-3-6
 \$ 77.99 1,804c.

Set of 1,804, for large groups of 100 or more.

Under topic 18 COMPUTERS / COMPUTER SCIENCE
 the five sub-topics are:

1. Magnetic Media (tapes-disks)
2. (off-line)
3. Software
4. Hardware
5. General / Miss.

Some items under sub-topic 1 - Magnetic Media are:

FOOD FACTS
 No 92663-M
 \$188.62

Set consists of 10 diskettes, containing the nutritional value of 72 nutrients for 4137 common foods.

COUNTY AND CITY FACTS
 No. 92663-M
 \$ 447.81

Set consists of 28 diskettes, demographic database with over 230 facts about every county and city in the U.S.

GOVERNMENT ADDRESS FACTS

No. 92663-M

\$ 422.87

Set consists of 23 diskettes, database collection of 83,000 addresses of county and town governments, school districts, and special districts, that include; airports, fire, police, hospitals and more.

Under sub-topic 3 - SOFTWARE

FUNDAMENTALS OF COBOL:

PROGRAMMERS REFERENCE

No. 008-040-00017-6-6

\$ 14.88 256 pg.

Navy reference and instruction manual for use of Cobol.
DIRECTORY OF COMPUTER SOFTWARE

No. PB85-162121-PBD-N

\$ 79.74

Software from 100 Federal Agencies. Lists over 1300 programs, includes 700 new programs from (NESC). Covers 20 categories with program descriptions. Fully indexed by agency, subject, hardware, and language.

Under sub-topic 5 - GENERAL / MISS.

NATIONAL LIBRARY OF MEDICINE ONLINE REFERENCE MANUAL

PB84-186808-CAJ-N

\$ 19.45

COMPUTER CRIME: COMPUTER SECURITY TECHNIQUES

No. PB83-111054-CAJ-N

\$ 26.41

The FEDATA is easy to use and has some very interesting items for sale. I encourage anyone to check it out since it only costs for the long-distance call to Cleveland, Ohio.

ARTIFICIAL INTELLIGENCE

CONFERENCE IN PHILLY

The National Conference on artificial intelligence will be held in Philadelphia from August 11-15, 1986.

The conference will feature science and engineering technical sessions, half-day tutorials and an exhibit program. Those members interested in AI should write to aaai-86. AAAI, 445 Burgess Drive, Menlo Park, CA 94025-3496. Or call (425) 321-1118 or 328-3123.



**HILLCREST SHOP
 QUICK PRINTING CENTER**

For the best in PRINTING
 PARTY SUPPLIES
 BALLOONS
 INVITATIONS
 MAGAZINES
 N.J. LOTTERY TICKETS

see Nelson Russell at

296 SOUTH MAIN ST. PHILLIPSBURG, N.J. 08865



ED JUGE

Tandy Topics

By Ed Juge
director of market planning
TANDY Corporation/ RADIO SHACK

THE INFAMOUS COMPUTER CENTER DRESS CODE!

On May 21, a memo went out to our business products division personnel, which has received more attention from the press than most new product announcements. It told our people that we have committed major resources for the coming year to improving our business products division. It went on to spell out a formal dress code for division employees who come in contact with customers.

A store manager on the west coast took exception to the requirements and called news media to complain. Well, the story spread, and for a while we were getting a dozen media calls per hour. That's great, because we're making significant changes and want people to know it.

What is the dress code? For men, it's dark or medium colored business suits, white long-sleeve dress shirts with traditional business tie, hard sole dress shoes, neatly trimmed and professional appearing hair style, and no facial hair unless there is a medical reason. For women, the difference was a "dark or medium colored business outfit."

Why? Because we're making significant changes to grow the #1 sales organization in our industry, and we want them to project the appropriate image.

There's a new and very focused marketing program. We've dramatically increased the compensation plan for sales reps, and for the past 60 days we've been aggressively recruiting experienced, qualified personnel. There's a new intensive training program. The dress code is just one piece of the pie.

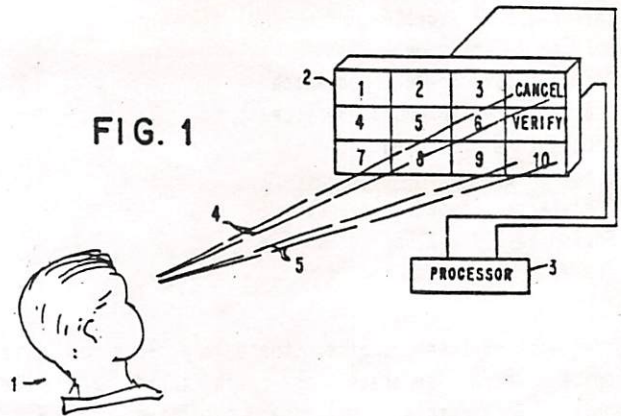
Are we automatically firing anyone who doesn't comply with the code? No. If a good employee prefers, we'll make every effort to place him or her in a Plus Computer Center. Those facilities are not part of the business products division, and so aren't covered by the code. But an employee may not remain in a BPD position unless he or she complies. Team members must play by the rules, and we're making it worth their while!

COMPUSERVE'S TANDY FORUMS CHANGE HANDS

Effective June 7, 1986, the Tandy Model 100 and PRO forums will change sponsorships! Tandy has been the official sponsor since October 1985. The new sponsor will be Golden Triangle Corporation in Forth Worth, Texas. R. Wayne Day, current sponsor of the CoCo forum will assume responsibility for the PRO and Model 100 forums. He tells us there will be

Continued on page 7

FIG. 1



Drawing with patent showing how user transfers information to a computer screen by directing his gaze to a portion of the viewing surface.

COMPUTER OPERATED BY A GAZE IS PATENTED

The International Business Machines Corp., this past week received a patent for a computer that can be operated by gazing at a portion of the screen. Using a computer equipped with an eye-tracking device, the user gazes at a selected subject for examination on the screen. The computer highlights it and the user can then verify or reject the choice by fixing his gaze on one of two displayed symbols, which represent a particular function.

According to the patent, the direction of a person's gaze is established through a reflected signal from the operator's eyeball.

Richard L. Garwin and James L. Levine, scientists at the Thomas J. Watson Research Laboratory in Yorktown, N.Y., were granted patent No. 4,595,990 for the eye-controlled information transfer. I.B.M. is not offering any new products under the patent according to news releases.

HIGH-TECH LASER DISCS TO BECOME TEACHERS

Three internationally known companies, National Geographic Society, Lucasfilm Ltd. and Apple Computer Inc., have teamed up to explore tying personal computers to high capacity 12-inch (album size) videodiscs and 4 3/4-inch compact discs similar to the shiny platters revolutionizing the music world.

Discs could offer students access to reams of information including still and moving images. (One CD can store a 20-volume, 9-million word set of encyclopedias or up to 7,000 real-life images.) Says Apple, "These devices can store the resources of a small library."

The three organizations, which are entering a "technical collaboration," bring considerable clout to the project.

Apple is the leading supplier of computers to public schools. Lucasfilm's owner, George Lucas, produced the popular Star Wars series, and National Geographic publishes books, education materials and its 10-million-plus circulation monthly magazine.

"It's our belief that personal computer technology can greatly enrich the way educators teach and the way students learn," said Apple chairman John Sculley.

NOTEBOOK CALCULATOR FOR THE COCO

The following program was written by James McCracken when he was attending a Navy School in Lakehurst, N.J. and was published in the TRS-80 Microcomputer News in May 1983.

The program runs as follows. The first input is the operation to be performed, next are the numbers being worked with. The program then supplies the answer and asks if the answer is to be saved, the program asks in what position, and asks for a name for the value. All this information is then displayed at the bottom of the screen. To recall numbers in the memory, simply enter a 0 for a number prompt. At this point the program asks which number, simply enter the variable number ie: (A(1)=1) the program will then display the value and return to the main routine.

```

10 '**** NOTE PAD ****
20 '**** BY ****
30 '**** JIM MCCRACKEN ****
40 CLS
   : PRINT @ 11, "NOTE PAD"
50 PRINT @ 320, "A(1)"
   : PRINT @ 352, "A(2)"
   : PRINT @ 384, "A(3)"
   : PRINT @ 416, "A(4)"
   : PRINT @ 448, "A(5)"
   : PRINT @ 480, "A(6)";
60 PRINT @ 324, A$(1)
   : PRINT @ 356, A$(2)
   : PRINT @ 388, A$(3)
   : PRINT @ 420, A$(4)
   : PRINT @ 452, A$(5)
   : PRINT @ 484, A$(6);
70 PRINT @ 332, A(1)
   : PRINT @ 364, A(2)
   : PRINT @ 396, A(3)
   : PRINT @ 428, A(4)
   : PRINT @ 460, A(5)
   : PRINT @ 492, A(6);
80 PRINT @64, "(+,-,/,*) WHAT ARE WE GOING TO DO";

```

```

90 INPUT B$
100 INPUT " FIRST #"; C1
110 IF C1=0 GOTO 280
120 INPUT "SECOND #"; C2
130 IF C2=0 GOTO 320
140 IF B$="+" THEN 180 ELSE IF B$="-" THEN 190 ELSE
   IF B$="/" THEN 200 ELSE IF B$="*" THEN 210 ELSE
   220
150 PRINT "ANSWER " C3
160 PRINT @ 64, "";
   : INPUT "DO YOU WANT TO SAVE THIS ANS.Y, N"; D$
170 IF D$="Y" GOTO 230 ELSE GOTO 10
180 C3=C1+C2
   : GOTO 150
190 C3=C1-C2
   : GOTO 150
200 C3=C1/C2
   : GOTO 150
210 C3=C1*C2
   : GOTO 150
220 PRINT "I DON'T UNDERSTAND " B$ " REDO";
   : INPUT B$
   : GOTO 140
230 '**** SAVING ROUTINE ****
240 INPUT "UNDER WHICH POSITION (A1-6)"; E
250 INPUT "WHAT NAME"; A$(E)
260 A(E)=C3
270 GOTO 10
280 PRINT @ 128, "";
   : INPUT "INPUT VAR #"; V
290 C1=A(V)
300 PRINT @128, " FIRST # " C1
310 GOTO 120
320 PRINT @160, "";
   : INPUT "INPUT VAR #"; V
330 C2=A(V)
340 PRINT @160, "SECOND # " C2
350 GOTO 140

```

MEETING IS FRIDAY
JUNE 27, 7 PM

Tandy Topics

Continued
from page 6

no sweeping changes, but he does have plans for expanded features to be brought on board.

Tandy will maintain a presence on the CompuServe forums, and we hope to be able to expand our participation to a wider variety of information services.

The change was made for several reasons. While we hope our presence can be a valuable communication channel between Tandy users and Tandy headquarters for non-technical matters, we know that concerns about liability restrained us from providing some types of information about non-Tandy products which is of interest to forum participants. An "independent" sponsor can simply make comments and furnish information with fewer constraints. We're convinced that our participation rather than sponsorship would result in a more productive and enjoyable environment for forum members, so we asked CompuServe to find another sponsor to replace us. Based on his record with the CoCo Sig, Wayne is an excellent choice. We wish him well, and will help him out in any way we can.

Tana Grubb will still represent Tandy headquarters on the

forums, and she will continue to maintain and expand the Tandy newsletter.

DS-9 VERSION 2.0

We received a CompuServe message recently asking when this product was going to be "re-released in its fixed form". I'm told there is a bug which has existed in all versions of 6809 DS-9 provided by MicroWare. It didn't show up until 2.0 came out. The only known effect is that during BASIC error trapping, the system will sometimes fail to recognize a BREAK key. It is apparently somewhat obscure, and doesn't show up in our applications software. In fact, there has yet to be one problem report called into our Customer Service group. MicroWare hopes later to issue a patch to correct it.

The reason 2.0 was not available for a while was a simple matter of demand far exceeded our expectations. We just flat ran out! It wasn't pulled or put on hold or recalled. In fact, the supply is being replenished in the warehouse now, but there is a backlog of orders.

Last month I printed excerpts from a customer's complaint letter about our "false advertising" showing a CoCo in one

Continued on page 8

of our CGP-220 printer ads. I said the CoCo pictured was a standard CoCo2 and that there was no trickery involved.

Well, the gentleman responded to my letter insisting that the screen pictured could not be produced on a CoCo 2. Upon further checking, it appears that indeed the screen was stripped into the photo (a common practice, since screens must otherwise be "burned in" for 20-30 seconds in a pitch dark studio) and our art department inadvertently stripped in a Tandy 1000 screen by mistake.

I have assured our complaining customer that it was unintentional since it wasn't a computer ad, and the computer was not named or identified, and only a corner of it was pictured. But...we'll watch it in the future.

TANDY NAMED #1 PC RETAILER

Computer Retail News published their list of the top 20 retailers in the May 26 issue. Tandy is #1, followed by BusinessLand.

CRN commented "with approximately 439 Radio Shack Computer Centers and 1,235 Radio Shack Plus Computer Centers, Tandy Copr. is currently the world's largest reseller of personal computer products.

"And perhaps the most interesting about Tandy beating its competitors in holding that title is the fact that Tandy sells only Tandy-brand products."

WHICH KIND OF DOG TO GET?

Trying to decide which kind of dog to get?

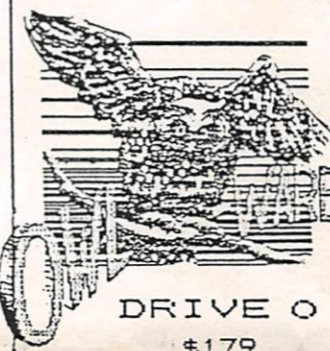
The Kal Kan dog food company recently started a free, computerized service to help you make a choice. The participant fills out a questionnaire about what he wants in a dog. His responses are fed into a computer that knows the characteristics of 75 popular breeds. It matches each person with three to five breeds. The prospective owner gets information on each of those breeds including photographs and the names of national breed clubs. To get a questionnaire, write to Kal Kan Selectadog Service, P.O. Box 58853, Vernon, Ca 90058-0853.

QUALITY CONTROL TRIVIA

Did you know that more than half of the effort (people and space) in the Tandy 1000 plant is devoted to quality control rather than manufacturing?

But you didn't know that every Tandy product is tested to withstand shipping and storage temperatures of -40 to +160F. Have you ever seen a car trunk opened in mid-summer in Texas, revealing a printer with the case melted down around the mechanism? I have (not a Tandy printer). Operational temperature ranges are +32 to +110F for home products and -40 to +140F for anything intended for outdoor use.

Worried about low power on your AC line not running your computer? Our products must operate acceptably from 105 to 135 volts AC.




FOR CLUB MEMBERS ONLY

35% DISCOUNT
ON ALL OWLWARE SOFTWARE

<p>DRIVE 0 \$179 with R/S controller</p> <p>HARD DRIVE 5 MEG \$450 interface included</p>	<p>DRIVE 1 \$89 Case & power supply</p> <p>Fabulous EPSON Drives Double Sided are now available.</p>
---	---

FOR CLUB MEMBERS ONLY

SEE TOM ROGINSKI at meeting or CALL (215)682-6855

OWL-WARE 

P.O. Box 116-F
Mertztown, Pa. 19539



P.O. BOX 2742
LEHIGH VALLEY, PA 18001

Reinhold Radke, Editor
1-201-859-6161

