

MEETING DOWNSTAIRS

公告臣村取為

1) SOFTWARE & HARDWARE LIBRARY	Jim Peterson	
2) CMBERSHIP	Art Morga	
3) UCLE VISIT	Roger Wills	
4) OPEN FORUM Coffee break/Suggestions/Questions/Answers		
5) Speech synthesizer demo	Ken Van Pelt	
6) ASPIC LESSON & DEMO (How to use the MAKE command) M	egan & Company	
NOTE Megan is 4 years old; so her dad (Company) will be there to	help.	

## TRADE BLOCK OPENS AFTER

## 

HELP WANTED Loving mother type to render child care during meetings...Talk to any club officer at the meetings to make arrangement...small monetary award.

## 

Ji Peterson is now in the Software business. His company name is TIGERCUB SO, WARE...156 Collingwood Ave. Columbus Ohio 43213...(614) 235-3545 Write to him. Send a SASE for a list and prices. GOOD LUCK JIM!!!

# \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\*

64 CHARACTER CODE SPRITE GENERATOR PROGRAM...enables you to draw a shape and converts it to 64 code XB...Sprite shown at call magnify (3)...members \$10. Non members \$14.

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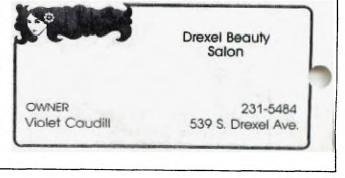
# If you are trying to run a program, & the instructions tell you to push certain keys...NOTHING happens when you do!@\*#. don't get angry. This program may have en written on the TI99/4 instead of the TI99/4A, & using the split keyboard TRY THE FOLLOWING: If instructions are to push the SHIFT key, try the B instead. For the SPACE BAR, try G. for G, try the semicolon (;), for the B, use the slash (/). substitute the period (.), for ENTER. And use comma (,) for the period. If the ARROW keys go side ways & up but not down, list the program & look for ā. line reading: CALL KEY(1...(etc). It will probably read...CALL KEY(1,K,S). Then look for a line that reads: IF K=0...(etc). Change that to: IF K<1... Now the program should run. (JP) (or give me the name of the programer.....(B)) This month for the game players Biggie presents these subroutines. 100 REM HOW MANY PLAYERS? SALES - SERVICE - RENTALS

110 CALL CLEAR 120 PRINT "ENTER NUMBBER OF PLAYERS":: 130 INPUT "(MAXIMUM OF FIVE PLEASE)":N 140 IF N<1 THEN 110 BEXLEY OFFICE MACHINES 150 IF N>5 THEN 110 2264 E MAIN STREET FOR X=1 TO N COLUMBUS OHIO 161 FOR N=1 TO N 170 INPUT "PLAYER # "&STR\$(N):NAME\$(X) 171 IF N=5 THEN 200 Ph. 235-6661 J. Robert Swaney 175 NEXT N 180 NEXT X 190 REM ON TO PROGRAM INCEDENTLY THERE ARE TWO SPACES AFTER A REM BUT NOT TO WORRY IF YOU FOR 200 REM GET YOUR COMPUTER WILL FUT THEM IN FOR YOU. 100 REM PROGRAM TO GENERATE RANDOM SYMMETRICAL REDEFINED CHARACTER 5. BY JIM PETERSON 110 CALL CLEAR 111 PRINT "PRESS (ENTER) TO SEE NEXT CHARACTER.":: 120 DIM A\$(16) 130 CH=33 140 CALL SCREEN(16) 150 RANDOMIZE 160 DATA 18,24,3C,42,5A,66,7E,81,99,00,A5,BD,C3,DB,E7,FF 170 FOR J=1 TO 16 180 READ A\$(J) 190 NEXT J 200 FOR J=1 TO 4 210 X=INT(16\*RND+1) 〇 〇 日本=日本公合本(X) 』」○ □\$=A\$(X)&D\$ 240 NEXT J 250 CALL CHAR(CH, B\$&C\$) 260 PRINT TAB(14); CHR\$(CH):: 270 CALL HCHAR(24,3,CH,28) 280 PRINT ::

290 CH=CH+1 300 B\$=NUL\$ 310 C\$=NUL\$ 320 CALL KEY(0,K,ST) ) IF ST<1 THEN 320 ELSE 200 LONG SHELL SORT BY RUSS WALTER IN THE SECRET GUIDE TO COMPUTERS VOL. C2 100 REM YOU HAVE N NUMBER OF X\$(N) TO SORT. TO SORT NUMBERS, DELETE ALL \$. 110 REM 120 D=N 130 D=I D=INT(D/3)+1 140 FOR I=1 TO N-D 150 IF X\$(I)<=X\$(I+D)THEN 230 160 170 T\$=X\$(I+D) J = I180 X \$ (J+D) = X \$ (J)190 J=J-D THEN 220 IF J<1 THEN 220 IF T\$<X\$(J)THEN 180 200 210220 X\$(J+D)=T\$ 230 NEXT I 240 IF D>1 THEN 130 250 FDR L=1 TD N 260 PRINT X\$(L) 270 NEXT L BENCHMARK TEST FOR LONG SHELL SORT. TYPE IN AT BEGINNING OF PROGRAM. CAN 10 REM CHANGE 200 IN LINES 12,20,70 2 DIM X\$ (200) 12 15 RANDOMIZE FOR J=1 TO 200 FOR L=1 TO 5 20 25 FOR L=1 TO 5 30 C\$=CHR\$(INT(26\*RND)+65) 40 X\$(J)=X\$(J)&C\$ 50 NEXT L J £ ". NEXT N=200 SOUND (500, 500, 0) CALL 90 PRINT "STARTING SORT" 5 REM BENCHMARK TEST FOR LONG SHELL SORT OF NUMBERS. TYPE AT BEGINNING OF PROGR AM. DELETE ALL \$. 10 DIM X(200) 20 RANDOMIZE  $\mathbb{I}0$ FOR J=1TO 200 X(J) = INT(1000 \* RND)40 50 NEXT J 60 CALL SOUND (500,500,0) 70 PRINT "STARTING SORT" 75 N=200 If you have a question for Biggie send it in and he'll answer it in his column Of coarse Biggie loves tips, so send them in too! \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \* DISCOUNT HARDWARE & PERIPHERALS \* P-BOX \$175.00 XBASIC \$79.13 \* BRING CASH...MONEY ORDER...OR \* CERTIFIED CHECK TO THE APRIL \* Drexel Beauty \* MEETING...TAKE HOME YOUR XBASIC \* Salon CELJIM ENTERPRISES \*

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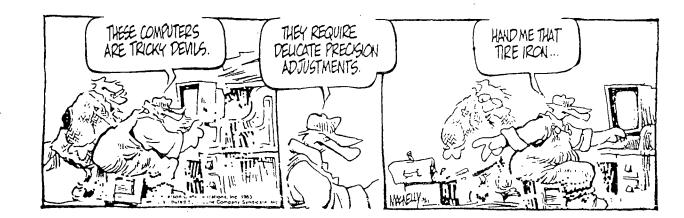
ANIMATION AND GRAPHICS III

by Roger Wills

Have you ever wondered how all those laser shots are done? ) a few lines you can easily do it. 50 REM LASER SHOT BY ROGER WILLS 60 CALL CLEAR 70 PRINT "PRESS THE FIRE BUTTON":: "OR <0> TO SEE THE LASER"::::: . 80 FOR DELAY=1 TO 1000 90 NEXT DELAY 100 CALL CLEAR 110 CALL KEY(1.K.S) 120 IF K=18 THEN 130 ELSE 110 130 CALL CHAR(35, "FF") 140 CALL HCHAR(3,3,35,28) 150 CALL COLOR(1.7.4) 160 GOTO 100 170 REM SEE IF YOU CAN ADD SOUND, TRY A BLACK SCREEN, CHANGE CALL COLOR TO (1,16 .1) This program applies to the use of the remote controller fire button: the value 18 being returned to the computer if the fire button is held down. In line 130 you will notice only 2 letters in the hexidecimal code. The computer automatically assignes the remaining 14 zeros, so why bother typing them in yourself. Lines 140, 150 place the 'laser line' on the screen. If you do not return through the call clear statement, you will not get the <sup>inv</sup>usion of flashing or movement. As you do more programming, the subject of illusions will become more obvious and important in geting the right visual $\cdots$ effect. as an exerise you might try looping back through 110 instead of 100 and then try combining this routine with the one in last months newsletter to see if you can get the man to walk and fire a laser beam. happy programming. have fun.

At the meeting I will conduct a 30 minute class on Beginners' Graphics.

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### THE COMPUTER ROOM

By now most of you have been chased out of the Kitchen, dining room; Living room, Den, All of the above. You've retreated to: the Garage, Basement; Spare be room, (& God forbid) the closet. (No one would put a computer in the bath) On of the above. Those of you still sitting in the middle of the living room floor, Pay attention. Who else should read this? if you have any of these symptoms, then read on. This article is for the sore back, irritated eyes; tired wrists, just can't concentrate, (Joystick thumb cannot be cured) bunch. First, you must realize by now that your PC bears a striking resemblance to a typewriter. This is the key (pun) to my article.

If you are handy with tools, you can build yourself a proper work station. If not (& you have money) you can buy one of the many commercialy available work stations. If you don't have money or talent, (you have a problem) hurry & make friends with someone who does.

Your PC needs at least 5 times it's size (in sq.ft.) of space to be comfortably used. An environmentally controlled room with a light level sufficient for all tasks to be performed; including viewing the video screen. A mix of natural light & indirect overhead lighting. (Flourescent if possible) is best. Flourescent only is a good alternative. Lighting is OK? Very Good. Are there any Outlets in the room? (you'll need at least 5), they don't come in odd lots sfou'll need six. Are they separately fused from the rest of the house? (especially the Kitchen). Warning: if you are not an Electrician, don't do any home wiring yourself. (get someone you don't like to do it). Seriously, get A Qualified Licensed Electrician!!!!

to do this job. Now that we have a room or part of one, good lighting & sufficient outlets, do we install our computer? Not yet...Let's paint the place. Some nice earth tones ie: Pearl grey, tans, toned down oranges, wood tone browns & greens set a good psychological mood. OK, clean up those painting tools & hide those clothes before your wife sees them. Since we all have color computers, I won't bother to tell you that amber or green CRT screen is best for long hours at the keyboard. Woops! we don't even have the thing plugged in yet.

We'll need a desk, No not a DESK desk, a computer desk; designed for comfort & efficiency. These can also be purchased or you could build one my kits, or des -sign your own. The correct dimensions are at the end of this column. Now we need a place to put our seat.A lumbar (lower back) support chair, with casters, for ease of movement. Some Various & sundry items (shelves & tables)  $f_{\frac{1}{2}}$  books & other paraphernaila. Don't forget the foot rest!...It's not good for you to sit for long periods of time with your feet flat on the floor. Back to the most important item; the desk, after all this is where your PC will spend most off it's time, & you do want it to be happy.

# AND NOW; AS PROMISED THE DIMENSIONS:

- A. Height of home row of the keyboard should be between 28.25 in. to 31 in. or 28.25 in to 29.5 in. (european specifications). 29.25 in. to 31 in. (military specifications). YOUR CHOICE? Beep!...
- B. Viewing distance to the screen of the VDM should be between 17.25 & 19.25 But not over 27.5 in. for screens measuring 10 & 13 in. diagonally.
- C. Center of (VDM) screen should be 10 to 20 degrees below the horizontal plane of the viewers eye level. (no portion of the screen at an angle greater than 40 deg. below the horizontal.
- D. Recommended angle between upper & lower arms when seated is between 80 and 120 degrees for maximum comfort.
- E. Angle of the wrists in the typing attitude no greater than 10 degrees.

F. The keyboard should be at or below elbow height.

G. Sufficient room under work surface to accommodate all leg movement. Keep in mind; this is only a guide. You must use your personal experience to adjust these dimentions to your preferance.

Some final notes: You might consider a noise shield for that noisey printer (that you don't own yet). Turning down, or off, the radio, and let's not forget getting a phone line in the room, (just in case you own a modem).

When you are writing a program and come to a point where you wish execut. It to HALT until some intervention, one way might be:

200 PRINT "PRESS (ENTER> TO CONTINUE"

210 CALL KEY(0.K.S)

220 IF K/013 THEN 210

Another way would be:

200 INPUT "PRESS <ENTER> TO CONTINUE" :DUMMY\$.

What is the difference? The INPUT method requires about 60 bytes less memory and would be a little faster (it does not require a KEYSCAN) and resumes execution when <ENTER> is pressed. Whereas CALL KEY is a conditional transfer and does scan the key-board until the required key is pressed.

The INPUT method produces a beep to indicate that the computer is waiting for INPUT (enter key to be pressed) While the CALL KEY is silent. However the CALL KEY method can be modified to respond to any key (see USERS REFERENCE GUIDE Page III-1) and if you're using the '4A' the FCTN (function) keys can also be used (see USERS REFERENCE GUIDE Page III-2).

There are many routines that can be accomplished with the CALL KEY sub program menu lists...Sound Production...Character Definition...Movement...Etc. Experiment with some routines in your URG under CALL KEY & INPUT But remember the CALL KEY subprogram can cost you memory & execution time to test the values you want returned

### THOSE CONFUSING VARIBLE NAMES

#### by Jim Peterson

A variable name is just a name, a symbol, a 'handle',

w th is used to represent a number,& in place of the number in a program. A string variable name is just a name, a symbol, a 'handle' which is used to represent a word, a group of letters, a single letter, a numeral, or group of numer-als not being used as a number.

Some beginning programmers get the idea that certain variable names must be used for specific purposes...ie 'interest rate' must be represented by the variable name TR. This is a misnomer...you could just as easily use XY, X, WWWW , or DD/.

A variable name can be up to 15 characters long, if you want to use up that much memory. Unlike other home PCs the 99/4A can & will read the entire variable name, rect just the first a lattors). However

the variable name must begin with a letter, the at symbol ( $\Im$ ), the lett brack -et (E), the right bracket (1), the back-slash (\), or the line (\_). For the remainder you can use letters, numbers, ( $\Im$ ), or(\_). If it is a string variable name, you must end it with a dollar-symbol (\$). It cannot contain a space, character (32), or any RESERVED word. (words used in basic which are reserved for statements or commands, ie LIST or RUN) Those are the rules...and if you wish them, your computer will call you a BAD NAME.

It will also call you a BAD NAME if you copy a program from another BASIC language which allows the same name to be used for a simple variable and a sub -scripted variable. We won't dig into that, but if the program has something like C=1 and C(1)=2, just change that plain C to C@. Finally the computer will also insult you if you run a BASIC program with your XBASIC cartridge inserted and the programer has used a variable name which happens to be a RESERVED word in XBASIC.

Some programers like to use complete words as variable names, ie ERINCIPAL-#RATE=INTEREST. Maybe that makes the program easier to understand (it just confines as') but, it uses a let of memory, makes the program slow is four ' slow to run.

Other programers like to use abbreviated words. This saves memory & time However it can result in bugs crawling all over your program, if you abbreviate PRINCIPAL as PRN the first time & PRIN the seconed time.

Still others prefer single letter, or two letter variables, assigned arbitrarily. This works just fine; if you keep a piece of scratch paper handy to cord what you used for what. Some programers start with with A for the first name they need, & work through the alphabet. Others start with X,Y&Z then take off in all directions.

It really doesn't make any difference...but, with

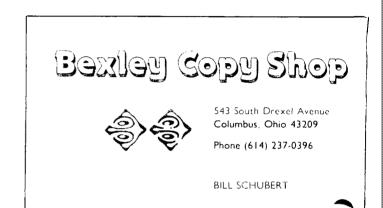
24 other letters & hundreds of two-letter combinations available, why would any

same programer breed bugs by using I & O; so easily confused with 1 & O ?? It seems to be traditional to write: FOR I=1 TO 10, but why be traditional? Personally, I'm not consistent in the use of variable names, however I do like to avoid confusion by systematically using certain letters for certain purp ses. ie C for Column, R for Row, K for Key, ST for Status, J (Not I) & L for Loops & especially T as a counter. Remember that if you write FOR J=1 to 20... NEXT J...J=J+1, your J will have a value of 22!

When I write a Utility program, to be saved & subsequently loaded to build another program around, I like to start my variable names with the (@) symbol which I use only in utility programs. This can prevent some extremely pestifer -ous bugs.

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## PRESIDENT'S COLUMN

After several meetings we can confidently state that the Central Ohio Ninety-Niner's Users group is off & running. At the last meeting the acting club officers were elected for the next 12 months. One exception is Pat Saturn, Newsletter Editor. Pat has played a significant role in organizing meetings & writing the newsletter. Pat decided not to run for election as President, primarily because off his time commitment as Newsletter Editor. I'm sure you'll agree we. have an excellent newsletter. It's getting bigger & better with every issue. Keep up the good work Pat!. This is YOUR newsletter!! send your programming tips & Routines; Advertisments & Hardware/Software information to Pat. The Elected Officers are:

> FRESIDENT:ROGER WILLS VICE PRESIDENT:PAUL POWERS SECRETARY:BILL ZIPF TREASURER:ART MORGAN LIBRARIAN:ROD LEVERSEE

> > ROGER WILLS PRESIDENT

CENTRAL OHIO NINETY-NINERS INC.

## CLOSE ENCOUNTERS OF THE ELECTRONIC KIND

by Fran Russell(copyright 1983/reprinted with permission) When our son vacated his room for an apartment and adulthood; it seemed fitting toffer it to one who had recently been rendered jobless and homeless by a comporate merger. We took comfort in the fact that we could grow old and obsolete together.

Our jobless friend, a small personal computer, sat forlornly in the room once occupied by a stereo system, a waterbed, and other necessities of teenage life. The corner which once housed an old Chevy transmission now held a box containing several large operating manuals and a few extra circuit boards. My husband, George, explained that a little work would have to be done before the computer would operate. It was suffering from a bad case of the loops, the electronic equivalent of running around in circles. At least computers do not leak oil on the floor, I thought, looking at the blank video screen. Feeling vaguely threatened by this electronic gadget, I promptly named it Heathcliff, hoping that if I personalized it a little I could convert it into a sort of R2 D2- mechanical but likable.

George, a 20-year veteran in the computer field, had a go at Heathcliff with his soldering iron. And; after a few days, Heathcliff came to life, flashing numbers and words on his video screen. I then learned that Heathcliff had an a iction. he was dependent on something called software- programs or sets (

In Heathcliff's case soft ware usualy came on plastic disks that were placed in a black box called a disk drive. My husband spent hours reading computer magazines and visiting electronics shops to meet Heathcliff's seemingly insatiable need for programs. Heathcliff would do very little unless he was first fed a floppy disk; so called because they are made of flexible plastic

We joined a computer club; called a Users group, consisting of folks who own personal computers manufactured by the same company as Heathcliff had been. Anxious to learn more about computers in general and Heathcliff in particular, I accompanied my husband to a meetting. To my dismay; the people at the meeting, including George, spoke a strange language that I could not comprehend. It occurred to me that i might have stumbled into the Twilight Zone. I tried to listen, promptly developed a headache and wondered if George would ever leave me for a woman who knew what kilobaud meant.

I decided that I needed the computer programmer's equivalent of first grade. Reginner's books written for adults were beyond my grasp; so I chose a book itten for the junior-high set. I sat down at the computer with the book, a Heathcliff obligingly responded to the simple commands I typed.

I studied a computer language called Basic that would become the basis for communication between Heathcliff and myself. Basic consists of English words & phrases that also have meaning to computers. I discovered; however; that there are different versions of Basic, depending up -on who manufactured your computer. And, while most home computers use Basic, /ou cannot always use a program written for one brand of computer on anothe manufacturer's computer.

A program, a set of instructions that tell the computer what to do, must be used for each operation the computer performs. I learned that a computer will only do what you tell it to, and woe unto you if you don't say exactly what you mean, because the computer will sit there & do nothing. Or worse, it will beep at you and print out something like... illeagal command, making you feel guilty and a little embarrassed.

We acquired some game programs, and the hours I spent exploring the galaxy with Captain Kirk in search of Klingons led to an appreciation of what Heathcliff could do, given the proper instructions. He could play a game for hours without becoming bored and could adjust his skill level to anyone who played the game; be they novice or expert. He was patient with our daughter, who has learning disabilities, and we watched her confidence grow as she played educational games with Heathcliff. He provided a 'well done' for every success and was cheerffully forgiving of wrong answers, replying 'sorry, wrong answer' or 'please try again'. We watched with delight as our daughter keyed in her own jame programs copied from computer magazines; with an occasional assist fr( dad. Our son pronounced the computer a fitting occupant for his former room & played Alien Invaders when he came to visit.

Although understanding Heathcliff was a continuing struggle; I gradually became more confident. Anxious to show off my newly acquired skills; I ushered a friend into Heathcliff's room; insertted the Star Trek game disk and, with a flourish; keyed in the start up sequence.

I had forgotten to turn on the power. 'George must have reprogramed the start up sequence again', I said nonchalantly. 'I'll have it up and running in a jiffy.' I hoped she wouldn't notice when I reached behind the console to flip the switches to On. Confidently I keyed in the start up sequence. Nothing happened Unfortunately; George had reprogramed the start up sequence; and I had no idea what the new one was. I made several tries, getting no reply from the obstinate Heathcliff.'Oh, well,' my friend said,'maybe you could take a course or something'.

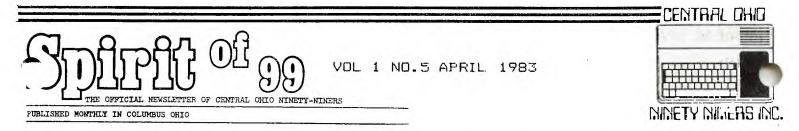
Puter owners. As my husband telephoned Micronet and connected Heathcliff to it's computer, using a device called a modem, the Twilight Zone-feeling returned. We now had an access to an array of information and services via Heath -cliff and our telephone for \$5 an hour, conveniently billed to our mastercharge account.

Users' groups for owners of the more popular home computers have their own bulin boards on Micronet where they can exchange information, trade programs & gt help in trouble-shooting their systems. I dis-

covered that I could get recipes from Better Homes & Gardens magazine; complete with calorie counts and nutritional analyses.

Adding a printer expanded Heathcliff's abilities. Using the computer as a wor'd processor, I could write and edit this article, storing it on a floppy disk and printing out copies at will. A computer program published in a weaving magazine and modified to Heathcliff's version of Basic enables me to simulate weaving patterns for my 4-harness loom - saving time; temper and thread.

Heathcliff has proved himself a helpful addition to the family, and while he does not replace the former occupant of his room; he does have one trait in common with our son: he constantly challenges our view of things and invites us to examine new ideas. The Twilight Zone feeling returns occasionally, but I've learned to welcome it, because it tells me that neither Heathcliff nor we have become obsolete.



The Spirit of 99 is the official newsletter of Central Ohio Ninety-Niners Inc. & is published monthly in Columbus Ohio.

Please address all letters to Spirit of 99 1456 Grandview Avenue Columbus Ohio 43212 c/o ("department")

Ads are \$2.50/25 words or 2X3.5 business card (no typesetting) write for rates & sizes of larger ads. Members personal ads are printed at No Charge. (limit 25 words please).We reserve the right to edit all copy for space and or content.

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MEETINGS ARE FROM 9AM (door open at 8AM) TIL NOON. BABYSITTING IS PROVIDED AT 75 CENTS A HEAD TILL NOON.

HENEVER I MUST KNOW BY THE PRECEEDING FRIDAY IF YOU ARE ATTENDING WITH C LDREN SO I CAN MAKE ARRANGEMENTS...CALL BETWEEN 9AM &1:30PM ON THE PRECEEDING FRIDAY ONLY 486 7262 THANX PAT







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ADDRESS APPLICATION TO: SPIRIT OF 99; 1456 GRANDVIEW AVENUE; COLUMBUS; \_OHIO; 43212 SIGNED...CONNI..(CENTRAL OHIO NINETY NINERS INC.)...

*****	MEMBERSHIP INFORMATION	*****
NAME		AGE
ADDRESS		
CITY		
AREA CODE () HOME FHONE	BUSINESS PHONE	EXT#
HOW LONG HAVE YOU OWNED YOUR C	COMPUTER	
WHERE DID YOU PURCHASE IT	· · · · · · · · · · · · · · · · · · ·	
WHAT WAS YOUR REASON FOR BUYIN	G IT( )ENTERTAINMENT ( )E	DUCATION. ( ) BUSINESS
( ) COMPUTER LITERACY ( ) HOUSE	IOLD MANAGEMENT ( ) JOB REL	ATED HOMEWORK
() BUSINESS () PROFESSIONAL US	E ( )OTHER	
WHAT LANGUAGES DO YOU USE ( ) H	BASIC ( )ASPIC ( )X-BASIC	()ASSEMBLY ()PASCAL
()LOGO ()PILOT ()FORTH ()(	THER	
WHAT PERIPHERALS DO YOU PRESEN	ITLY OWN ( )CASSETTE ( )DI	SK/HOW MANY ( )P-BOX
()RS232 ()X-RAM MEMORY ()T	/ ( )B/W MONITOR ( )COLOR	MONITOR ( )PRINTER
()MODEM ()p-CODE CARD ()HE)	(-BUS ADAPTER ( )WAFERTAPE	DRIVE ( ) THERMAL PRINTER
PHT A CIRCLE AROUND THE ABOVE	PERIPHERAL YOU PLAN TO (	)BUY NEXT ( )WANT MOST
WHAT IS YOUR PROFESSION/VOCAT:	[ON	
EDUCATIONAL BACKROUND		
DATE OF APPLICATIONACCEP	PTED BY	
***************************************	* * * * * * * * * * * * * * * * * * * *	*******