THE OFFICIAL NEWSLETTER OF THE CENTAAL OHIO NINETY-NINERS INC.



```
                                    4-1 = = 5
```





$$
\begin{aligned}
& \text { !n! I TM }
\end{aligned}
$$

$$
\begin{aligned}
& \text { MEIETTE }
\end{aligned}
$$

COFYFJEHT（C） 1983 Central Ohio Nimety Nimers Incorporated
 bus Ohio 43212，USA． All rights reserved． Gpirit of 97 is pub－ 1 ished monthly for Centrol Ohio Ninety… Niner：Imex by $\mathrm{G} \mathrm{O}_{\mathrm{n}}$ N．N．In membercs and is the official mews
 USEF GFOUF．

Edjtorje］，Adver＂… tising and sutseript－－ tion address js 146 Grendview Averuler Columbus Orjo．4S212．

Subseription rate （USA）放13．0日／1 year （12 I swues）．中24． $\mathrm{oC} / 2$ year＝（24 IEELEE！
Foretam Add w5．od per yewr．Third e．．ass pos tage paid at Collumbus Otia．

CHANGE OF ADDFESS： Serd both old and NEW Addrese to：
Gubseription address aboven WE assume no r＂esponcibility for mantscripts，programs （tepe or disk not ac＊ companied by return postage．Letter＝to the Edjtor become the property of spirit of 97．If published， We reserve the right ta edit at oup dis－ いretiom．

GFTNTONE EXFFESSED HEFETN AFE THE AUTH－ UFS AND ARE BASED ON VAL IO OOCUFENTAELE FESEFFCH．THEY DO NOT NEEESSAFTLY FEFLEET THE OFTNTONS OF THE FUEL TSHEF：
WE WTLL NOT KNOWTNGI Y FUETMH EOFYEGHT

MATEFIAL WITHOUT THE FEFHISSION OF THE AUTHOF ADD CFEDIT DUE
\＆ 1 … FWGFMG FUE
LIGHED HEFETN AFE OF FUELTC DOMATN UNLESS OTHEFWISE NOTED．

OTHEF NON－FFOFIT USEF GFOUFS MAY USE FATEFIAL FFOH THIS NEWS LETTEF ONLY IF SOUFCE AND CREDIT IS GIVEN．

Cemtral Ohio Ninety－ Niners Imen is a mon －profit organization Comprised of MEMBEFE who own or wse the TI9क／4A womputer and it＂s related products amd have paid a year－ I $\because$ йmbershje fee of क1世＂00 and whose mein objective is the ex－ cange of Educational arid $\operatorname{scjentifje}$ jnf… ormation for the pur－ pose of computer lit－ eracv．

E．O．N．N．I．meetimgs are hedd on the Sec．．． ond Baturday of each month at the Martin Janis Senjor Center on East Eleventh Ave．．． nue at the ohio stete fairgrounds．

Meeting time $i \leq$ at 9：AN．Meetings are


Fौmber enif dues
 yearly to C．O．N．M．I． and cover the m mead－ iate fanily of the member＂．Gan epplice． tion Tes been placed in this mews letter For your womvenio． ence：．Fleese adcress it $t a \operatorname{art}$ Morgan．

Treasurer 5087 Er ari don Fid．Col umbus Onio 43221．

AOVEFTIGMENT：WE DO ACCEFT COMAEFCIAL ADU EFTTSMENT AT THE FOL－ LOWING FATES：

EUSTNESECAFD（2X3
＂5）कぁ，OO／TSGUE

1／2 FAGE： 44500
FULL FAGE：क76．OO WF TE THTS NEWSLETTEF FOF OTHEF SIZE ARANGE MENTS．

ALL AOS SHOLLD EE SUENTTTED：CAMERA FEA DY TO：ADVEFTSTNE ADOFESS ABONE ，FAY－ MENT ENCLOSED．

MEMBEFS ADS AFIE PUELTEHED AT NO COST． （LTMIT DE WOFDS FLEASE，MUST NOT EE COMIVEFCTAL）。

JF YOU HANE DUES… TIONE，FLEASE CALI． $406-722$


WTLL DO MY EFST TU HELE YOU． FAT SATUFN（ED）


F－








35 atome
-

## FF：CM THE

F＂F世ESIEEMT－－


First I wish to thank：Jim Feterson for an excellent dem－ onstration at our Ap－ ril meeting，espec－ ially on such short notice．

The plea for help on committees was very successful with उs names logged on the sign－up sheets for committees． Thanks to all who volunteered！

The suggestion box went well consider－ ing it＇s newness and despite the young man who crashed my pro－ gram before I saved the data to dist：！．．．＂ SIGH！

Most suggestions made were regarding meetings and the lib－ rary．Scme of the suggestions made： ＂have 2 library lines for faster＂service＂ ．：＂provide library Gatagories by type ie games，music．pro－ gramming aids，etc． ．．．＂have 2 meetings a month．．＂＂matee library available between meetings＂。

Since the question comes up frequently， here is the address and phone of the TI exchange center：
in Dayton：TEXAS INSTFUMENTE EXCH CTF 4124 LINDEN AVE．．

DAYTON：OH 454．2
（513） $258-3163$
in Cleveland： 2S412 COMMEFCE FAFK： FD．EEACHWOOD，OH 44122（216）464－4288

The best advice I can give you is to call the service cen－ ter first and make arrangements for ser－ vice to your equip＂－ ment．

For those of you who missed the April meeting you should know that we elected as Trustees：Foger Wills，Faul Fowers， and Dale Smith． These three individ－ uals will serve as trustees until our nest annual meeting in March．1985．We congradulate them on their election，and wish them success．

We also announced that the club has an official budget oper－ ating on a projected annual income of \＄5622．00．Additiomal－ ly，the officers ap－ proved the purchase of： 1 FFINTEF， 1 FiSase， 1 MODEM，AND 1 TI－WFTTEF WOFD FFOCESSOF：These items benefit the pro cessung of our news－ letter，and are inten ded for use by the committees in perform． ing their duties．

After mewsletter Expenses，purchase of equipment，and $\exists$ B month reserve．we have a projected bla $^{\text {hato }}$ 75.00 for allocation to committees and officers Expenses．I hope that this will encoursge all of you to join a committee
and help us spend
this money on worth－ while club activi－ ties！

I shall be looking forward to seeing you at our May meeting on the 12th！
Sam Morabito．
Fresident
＊＊MOV MEETINIE $\triangle E E M I M \triangle * *$
Q $=0$
MMIFS MFEMIMEMEEFS
？

IIBFAFY FETIFNS
さのー ロー
MOMTHIY MEETTME
MEMGEF：$\triangle$ MMMIMICEMENTS FEOGFSM－

18（－
EEGTNMEFS EASIC EFMIF $\triangle G G E M E I Y$ GFOIF
LIEFASFY MITHDFAMALS GOMES EFTUF MEETS NE！！SIETTEF COMMITTEE DFEN DEMMNSTEATIDMS 12：9\％
EMI OF MEETIME

## 

 ソヨニミさinning methe Riveriヨ，cende hic
 return ta an gソorー


 future zrセiに19

Pำロッさㅌ Nate：
Afrliœヨさignc ヨro пnut heing taton for

 CのEt 女ill ho ำprov－

 ！！！？O！thoy 클 finnichod thoy mill
 カニニí mpogrems．
 1日もtor te KindorTort niェc for doさきile．

## TEMIEREMOT GQSIC

EY NIFAJ N. SHAH

```
This month I am going to
explain arrays to you. fn
array is a way to group data in
a wהy that allows easy
manipulation in a program. The
    simplest array is the
gne-dimensional array, a list.
Each variable in the list is
walled an element (item).
Eefore you begin using an array
in a program you must tell the
Emmputar tone lorg tha lí=t íc.
Thi= icm ¢Ell@d dimmnsimming the
```



## 100 DIM NAME (15)

As you can see from the above example the variable name of the arrey is NAME 5 and its length or dimension is declared to be 15 names long. Thus, if you try to add more than 15 names to the array called NAME then the computer will generate an error message. Actually, you can have 16 names in the ar'ay called NAME ${ }^{-1}$ but I will not explain it other than to tell you to refer to the OFTION BASE statement in the TI Manual.

Dnce you have told the computer how long the array will be you can start manipulating the array. Lets say that you wanted all the names of the people on your street to be kept inside the NAME array $^{\text {array }}$ Femember that you cannot have more than 15 names! Here is how you would do that.

110 FOF $\mathrm{I}=1$ TO 15
120 FFiINT "NAME $\$$ (": I: ")";
130 INFUT "?":NAME串 (I)
140 NEXT I

Lines $110-140$ consist of a
FGF-NEXT loop and an INFUT
statement that sequertially
adds the names of your neighbors to the NAME array. To understand this better try to remember who was the fifth person that you arlded to the NAME ${ }^{2}$ array. Then type in this and run it.

## 150 FFiINT NAME串(5)

Line 150 will print the fifth member or item in the 1 is* called NAMES. Was it not the same person that you had originally entered?! Eut you may say that you could have done the same thing by implementing the following program.

I agree that both of the programs achieve the same objective. Elut the serond frogram is much longer and takes up too muich of my time typing it and also wastes memory = The first program is much more efficient and it allows me to manipulate my NAME ${ }^{\circ}$ array in many ways. If I wanted to sort the names in alphabetical or reverse alphabetical order $I$ vould easily do 50 if the names were originally in an array: All I have to do is ta Eequentially Ge through the arryy end compare the first item with the second item then the second with the third item and so on.

Now that you have your neighbors names why not also get their addresses and telephone numbers? How mould
you do this？Easy！Just make up more arrays called ADDFESS\＆and FHONE $\$$ ．But remember that yau have to dimension these new arrays to tell the computer how much memory space to reserve for those arrays．Thus the revised program would look like this：

100 DIM NAME（15），ADDFESS象（1
5）FHONE $=$（15）
$110 \mathrm{FOF} \mathrm{I}=1 \mathrm{TO} 15$
120 FRINT＂NAME（＂：I；＂）＂
130 INFUT＂ 7 ＂：NAME ${ }^{3}(\mathrm{I})$
140 FRINT ：＂ADDFESS（＂；I；＂）＂；
150 INFUT＂？＂：ADDFESS事（I）
160 FRINT＂FHONE（＂：I；＂）＂：
170 INFUT＂？＂：FHONE生（I）
180 NEXT I
190 INFUT＂DO YOU WANT TO VE
RIFY（Y／N）＂：REFLY生
200 IF FEFLY卦＂Y＂THEN 210 E
LSE 300
210 INFUT＂WHICH ONE TO CHEC
K？＂：CHECF
220 FRINT＂NAME $=$＂NAME （CHE
CK）：：＂ADDRESS＝＂：ADDFESS事（CH
ECF）：：＂FHONE＝＂ FHONE （CHECK）
2ЗO INFUT＂IS THIS COFFECT？（ Y／人！＂：EEFEY生
240 TF FEFFY 도 쯔
250 INFUT＂NEW NAME＝＂：NAME Q $^{2}$（C HECK）
260 INFUT＂NEW ADDFESS＝＂：ADDF ESS事（CHECK）
27o INFUT＂NEW FHONE＝＂：FHDNE （CHECK）
$2 B O$ INFUT＂WANT TO CHANGE IT
AGAIN（Y／N）＂：FEPLY办
290 IF FEFLY$=" Y$＂THEN 210
300 END

The above program is similar to the first firogram excerit that it also has the capability to change the Name，Address or the phone number．Lines 190－270 enable you to change any or all of the neighbor ${ }^{3} s$ information．

Line 210 is the one that $\equiv 5 k$ you to specify which meighoor＊s data that you desire to change． Whatever number you give is assigned to the variable，

CHECK．Then Line 220 firints the offending neighbor．Flease lock at this line clasely to see how I pirked out one item out of each of the three listc． The name was selected from the NamE array or list by specifying the item number which is the variahle，CHECK． The same is done for the person＇s ADDFESS and FHONE． Here is now the computer goes through the process of selecting the Names Address and Fhone number of the neighbor：

1） $\mathrm{CHECK}=5$
7）His name＝NAME（CHECK） ＝NAME（5）
3）His address＝ADDFESS（CHECK） ＝ADDFESS（5）
4）His phone＝FHONE（CHECK）
$=$ FHONE（5）

Fart（1）assigns a value to the variable，CHECK：which is 5. This is accomplished in Line 210 of the program．Farts （2）－（4）are done in Line 220 of the program．Thus，with the ㄹロッソ์

 enatile the user to add more names．delete a nimiz；sort thiz names and save the names on a cassette tape．Gut if you really want such a program then check one out from the rlub libr ary and revise it to your sperific needs．

Now lets discuss tuo－dimension arrays．Oofs！My editor tells me that $I$ am out of space！It 5eems that my last article took up four pages whicli tock quite a bite out of the newsletter＊s tuidget！I will contimie this topic on two－dimension arrays next month．Until then sieep on experimentirg：

$\Delta t$ the 1 อ上t megtimg the F.E.I.




Stop tolling methempirgw!

AMERICA'S
FAVORITE B00KSELLER

Over 25,000 Titles Special Orders • Gift Wrap Mailing - Gift Certificates Major Credit Cards Accepted

## "FOR INFORMATION CALL"

B Dalton Bookseller 2753 Eastland Mall ---861 6860

## CQMFANIGN vS. TI-WFRITER

By Niraj N. Shah

This is a review /comparison of two word processors named COMPANION and TI-WRITER. COMPANION was developed by Intelpro and TIWRITER by Texas
Instruments. The thing that makes the COMPANION unique from most word processors is that a lot of it is written in Assembly Language. The only part that is written in Basic is the system monitor for COMPANION. TI-WRITER is written entirely in Assembly Language. COMPANIDN is available only in a Disk form and TI-WRITER is available in a module and disk form. The COMPANION is available for \$79.95 (U.S.A.) at this address:

INTELPRD
5825 BAILLARGEON STREET BROSSARD, GUEBEC, CANADA J4Z 1 T1

The COMPANION is the only word processor on the market can be compared to TI-WRITER (that I know of) - Keep in mind that each has its advantages and disadvantages. I will try to point out the differences between the two word processors in an objective manner.

Obviously, the main difference and the most important is that COMPANION has an 40 column editor where TI-WRITER has a variable column (maximum of 80 columns) editor. If you need to see how the text
is going to look on the paper prior to printing then you should choose TI-WFITER as your word processar. The second major difference between the two is that COMPANION has to be loaded into memory only once, no swapping of disks! TI-WRITER forces you to swap disks (for one disk drive systems) if you desire to use Text Formatter. But remember because of this second major difference TI-WRITER is capable of handling more text than is the COMPANION. The third major difference between the two is how they print out the text onto a printer and what options they provide. COMPANION does NOT provide a right justify command where the TI-WRITER has that command. Intelpro has stated in their documentation that right justification is in being worked on in their R/D department.

## Both processors

 have the capability to move, copy, and delete blocks of text. COMPANION deals with blocks of text via special indicators. TI-WRITER does it with line numbers. The documentation for both processors is quite extensive and easy to understand. Thus, no matter which word processor you choose, you most likely will not be left in the dark. But as usual. experimentation is the only way to find out what you can and cannot do with the word pracessor. Both word processors can do global or selectivesearch, replacement and deletion of strings.

The COMPANION has two added significant features which TI-WRITER does not have.
COMPANION can count the number of occurences of a unique string within a body of text. The second feature is that COMPANION lets you customize all the defaults for printing via a program on the program disk. But keep in mind that the cusomization invalidates the warranty! Both word processors have unique symbols to indicate the beginning of a
paragraph, line feed, center a string and start a new page. But the COMPANION also has a one keystroke command that enables one to tab over a specified number of columns for things such as salutations in a letter.

The thing that COMPANION is sorely missing is an OOPS! feature, which recovers inadverdantly deleted text. It also needs a Delete-To-End-Df-Line keystroke command. I would also like to see Intelpro add a Delete Line command in future revisions of the program. COMPANION also needs some way to move the cursor in a vertical motion through the middle of the text. In other words: when I use the Up Arrow key in COMPANION it will eventually left justify over to the first column thus making it almost impossible to see if the columns of two tables are even. TI-WFITEF
does not have this problem; when changing rows the columns do not change and vice versa. The labeling of the function keys in COMPANION seems to be rather backward. To scroll down 12 lines $I$ must press <FCTN 4> (CLEAR) and to scroll up I must press <FCTN 6> (PROCEED). To me, the word PROCEED means to go to the finish or the end of the text. But not so in Intelpro's interpretation! Also, to use the Editing commands in COMPANION I must press <FCTN 9> (BACK) and to get the the main menu I must press <FCTN 7> (AID). To me the word BACK means to go back to the main menu. Again; Intelpro seems to have their English mixed up.

Never fear,
COMPANION does have some advantages over
TI-WRITER. The main advantage is the considerable speed in which COMPANION deletes, moves, and copies blocks of text. The speed difference is quite obvious when using the auto-repeat feature of any key being pressed is used. If you hold down the left arrow key then you will see the cursor move to the left at normal speed then accelerate to the speed of light! This is quite evident when deleting characters, the letters move so fast that they become a blur! The COMFANION has three different symbols for the cursor: Edit, Text and Insert. When inserting characters
into the text the COMPANION does not split the line into two sections, before and prior the cursor. The COMPANION's insert
feature is a normal one, just like the TI BASIC editor. The lower case letters in COMPANION are true lower case, not small capitals as they are in TI-WRITER. The scroll up and down blocks of text in the COMPANION consists of scrolling 12 lines of text in a smooth but fast manner. TI-WRITER scrolls in an instantaneous scroll of 24 lines of text. When typing text into the COMPANION the text is never re-configured by the program unless you specifically tell it to do so. So, when you reach the end of the line in the middle of a word, COMPANION will merely wrap around to the next line. The word is NOT shifted to the next line as it is in TI-WRITER. This was done to fully utilize all 40 columns of the screen.

Both word
processors enable you to send all the ASCII characters (0-255) to the printer. Both allow you to change the background color of the screen. But unfortunately, COMPANION adopted white for the color of the foreground of the text. So, if you have a Black \& White T.V. then you may have a problem in reading the text on the screen. I know that 1 certainly do! Both programs enable you to print text in a single sheet or in
a continuous form fashion. Both processors have a warning message to signal impending overflow of the text buffer. But COMPANION also tells you how much text is currently in the buffer, thus, you can keep an eye on how much is in the buffer.

Personally, I think that the COMPANION has a better printer formatter and the TI-WRITER has a better text editor. Unfortunately, the two cannot be merged to form the ultimate word processor. Due to TI's decision to drop out of the market it may be hard to acquire a TI-WRITER. Intelpro is going to continue marketing the COMPANION. Also, Intelpro is willing to personalize their product just for you and based on that fact I think it would be wiser to buy the COMPANION. Keep in mind the minimal sytem configuration for either word processor is Extended Basic, Disk Drive, 32 K memory and an optional RS232 and printer for the COMPANION. Replace the Extended Basic with the TI-WRITER module for the TI-WRITER word processor.

> TALUING TO THE $\because 9$.

By Gale 5 Ringley

$$
\begin{aligned}
& \text { Yours truly had } \\
& \text { the opportumity to } \\
& \text { pick up a Milton } \\
& \text { Bradley MEX Expansion } \\
& \text { System at the Dayton } \\
& \text { Hamention this April. }
\end{aligned}
$$

## TAYTNG EDNTTMIIEA

For the benefit of those of you who did not get a flyer from TI, this is the box that plugs into your joy-stick ports gives you two analog jaysticks with built-in paddle, three buttons and a trigger. If that has you gamers drooling.try a 64 tey keypad, and speech recognition and synthesis (for those of you who don"t have the Speech synthesizer; it has one of its own). It originally retailed for \$129.95, with the secand joystick going for \$क्ष口. Milton Bradley $r$ an off 2000 . then TI killed the console and MB decided to filll the MEX and re-called those that it had distributed. To wet your curiousity: here is an out of the box report.

In the boxa one finds a console, one of those beautiful joysticks, a walltman type headset with a boom mike, and a book describing how to set up and use the system. The colors are the same as those for the late model console. gray with dark: gray trim and a little purple. The power supply is the same variety that the consale uses. After you hook everything together and power up, a pleasant female voice tells you "ready".

The console has a

64 key mylar pad, a squeaker: and the ports for the goodies. There is a rather short cable which hooks to your joy stick port, and another cable which hooks to your cassette port. The cassette port cable is for grounding (why this way I have no idea): The purpose of the mylar "cokeproof" teypad is to allow you to use an overlay for the feys that are used in a game More on the console in a minute.

The joystick, or game controller if you will, is a dream. The actual joystick: gives a full 360 degree response (this will vary from game to game) is not stiff in anyway and centers automatically. built into the joystick knob is a paddle controller, which sweeps from the lower left to the low er right, once again very smooth and it does not sli.p. The controller is in the shape of a pistol grip, and right in thumbs reach is three buttons, and there is a trigger as well. Upon disassembly of the joystick, I found that the four are independant of each other. Another mice touch is that the center thumb button has a slight ridge in it so that you do not have to look at your thumb to keep track of it in the heat of battle. Overall this is probably
the finest "joystick" availible today for any system. The bad news is that while it plugs directly into the console. the pinouts are not the same. The good news is that the Dayton group will shortly be publishing the schematics for an interface box (editor take note).

The speech system is based around the mitee. The earpads are just decorations. not functional, but they do enhance the sournd somewhat.
Here is where we get in to the nasty technical details for those that are interested. The speech is driven using Linear Froductive Codeing, which is the same method that the tent to speech programs use (ex ample: Terminal Emulator II). The heart of the system is a Motorola MC 6807
microprocessor, the
the same processor
that drives the
TKS-80 Color
Computer. Imput and out put is done by the MC 6821, and there is 81: of FOM and $4 k$ of static FAM for the 6809. The speech synthesizer is the General Industries SF 1000. Notice the lack of TI hardware, most all of the chips were maufactured by Hitachi. The system communicates to the computer entirely through the joystick port, and the ROUROxTMHEN

TALYING EONTINMEN
tines that accomp－ lish all this are of course locted a－ way in the game mod－ ules GROM（regrett－ able）．So much for the hardware．

I will be bring－ ing the MEX to the May meeting to demon－ strate it for those who are interested， but I need some help with that．I do not have any MEX games！ If you or someone you know has one（or two or more），bring them or it will be a very short and boring demo！TI did complete and release some of the games（I． just hope one made



LOED ב.TI-WFTTEF, MULTIFLAN

FOF IWFOWAFE: SOFTWAFE Gee atteched cetalog
ALU OTHEF TI GOFTWAFE:Call for price and availability

|  | TEFMINAL EMULATOR 2 |  | \$34.79 |
| :---: | :---: | :---: | :---: |
| *********** | EXTENTEO EASJC |  | $\$ 109.00$ |
| * CALL: * |  |  |  |
| * ----* | EDITOF AGSEMELEF |  | 969.00 |
| - * |  |  |  |
| * FOGEF * | MINI MEPGFY |  | \$99.99 |
| * - - - - - * |  |  |  |
| * * | WIDGET (cartridge Expander) |  | \$39.97 |
| * * |  |  |  |
| * WTLLG * | MODEMS (inc cable ${ }^{\text {a }}$ SUFCE sign up) | FFOM | \$89.99 |
| * - - - - - - - |  |  |  |
| * * | SMAFT MODEM (with softwere) |  | \$399.00 |
| * 889-7011* |  |  |  |
| * - - - - - - - | DUT MATETX FFINTEFS | FFOM | \$275.99 |
| * * |  |  |  |
| * EVENINGS* | RS2SE (p-boxistand alone) | FFOM | \$99.97 |
| * - - - - - - - - * |  |  |  |
| * $\quad 8 \quad *$ |  |  |  |
| * - * | उ\% EXFGNBION (p-bo\%) |  | \$117.9\% |
| * WEEKENDS* |  |  |  |
| * ---------* | DISK COUTFOLLEF CAFD |  | \% 199.97 |
| * * |  |  |  |
| *********** | 9QOO EYFANSION SYSTEMCPILGS into consol: stand alone FG2S2 with 1-FSOX2, -parallel ج2 FAMQDisk Controller |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  | card |  |
|  |  |  | ¢9¢ 95 |
|  | Items may be purchased separatelv |  |  |

99000 ExFANEION SYSTEM
(netrowox uith huilt 1 n
FG马Z2, 2 E FAMBDISE CONTFOLLEE
GAFD. Will rum 4 dist draves and double sided double dencity
 (atto)

thi


EOXFOUFF GUFFY FOF:
EVTEFNAL VFIVE




## SQME NEW EDAFDS

## By Gale S Ringley

Well there are two new additions to the files since my last article, one has come and gone, and there are three to five in the rumor or else I have had a bit of a problem getting logged on (yes I have problems like that too) The two new offerings this month are "Cosmos" and "CORE". Both are FBES based systems, and function pretty much like REBS Fickerington.

Cosmos is the local IBM-FC board. Do not let that scare you off
though, all are welcome. It is presently running under FBBE, but pretty soon (maybe by the time that you read this) it may be running under some thing else. Overall. a very nice version of RBBS. The number is 875-6416, and you will need to kick start it with a press of the enter key once you get the carrier: CORE, The Central Ohio Fiemote Exchange, is the other new board this month. COFE is run on a Xerow computer of some kind, and is sponsored by the Xerox


Computer Club. Unlike the rest of the FBES: 5 this one starts up by itself Once again a nice implementation of FBBS. In addition to the bullet board, there are online versions of the Scott Adams Adventure series availible to play on Saturdays (call early and have lots of patien ce to get at this!)" If you do not have one of the adventures here is a good place to "try before you buy". The number is 864-CORE. Have fun \& See You Later

EOEOTO 1－G CIEEAF：
$\operatorname{tgn} \underline{6}=$＂
TOQ FOF：$I=1 \quad T \square 10$


 29）：
$4 T G$ CAI CIEAF
4AO NEXT N
45O NEXT I
$4 \alpha$ CAI CIEAF
479 FEIMT＂E：FOF FEFEST＂：＂M
FOE MAIM！MEMIV＂：
490 CAIL FEY（G， 59
$40 \cap$ IF $\because=8$ THEN 5 O

a
玉サの $\triangle \Delta 1$ ELEOF
50 FQE $1=1$ Tロ 10

E4O MEXT I
EGOETHT：：＂CHANGE M！TGH
ME？＂：＂ENTEF OG TQ EGGQEE＂
ESO INFUT I
57O IF I＝QQ THEN 110
$5 Q O$ COLL ILEAE
50 FETMT M\＆T！
GOM FFIUT＂ENTEF NEU MESCAGE
．．．＂：



A4O THPUT＂OFE YOU SUFE YOU
HANT TD GUTT（VNO？＂：K

KAO IF
470 COL CLEAF
SBO FOF： $1=1$ TO 1 O
EOM FETMT Mक（I）

710 FFIMT ：：＂חKE LOST LDOE：

72の FRIMT＂！！E AFE．－＂：
$7 \leq 0$ EMn
740 FDF $n=1$ Tロ QQQ
？Gロ MEXT T
76O FETMFM

EO FEM THIS IS AMOTHES MEESAEE FPRGRAMI． COK YOU TMFFOYE IT？ MO FETZE MI！GE QFFERED DN THTE QNE （ETEGIE）
GO EEM
＊SロMETHIME CUTE！＊
＊EY GAM MMEAEITO＊
＊$\triangle F E T 12,198 a$
$\boldsymbol{*} \boldsymbol{*} \boldsymbol{*} \boldsymbol{*} \boldsymbol{*} \boldsymbol{*} \boldsymbol{*} \boldsymbol{*} \boldsymbol{*} \boldsymbol{*} \boldsymbol{*} \boldsymbol{*} \boldsymbol{*} \boldsymbol{*} \boldsymbol{*} \boldsymbol{*} \boldsymbol{*}$
7G 「OLI CIEOF ： Gi，＂FFFFFFFFFFFFFFFF＂）

LロF（SET，1ム，2， $9, ~ Б): ~ M E X T S$
ET ：：「ALL GCFEEN（2）
QO［QIL HCHOF（24， $1,100,64):=$

1 जn $E=0$
$110 \quad 5=4$
120 IF $5=20$ THEN 1 人O



150 5nTg 190
$150 \quad 5=4$
170 IF $\mathrm{E}=19$ THEN 210

$\triangle \operatorname{LI}$ HCHOF（F， E ，QE）
$10 \mathrm{CO} \mathrm{CO}+1$
マロロ EロTロ 170
$2105=4$


ALI HCHAF：（F，E，7
$2 \operatorname{anc}=\mathrm{C}+1$
2ธめ EOTM 2＂0
$2 \Delta n=4$
270 IF r＝17 THEN Tiの


209 $\mathrm{C}=\mathrm{C}+1$
シロロ GロTロ 27の
$\geq 10 \mathrm{C}=4$
Z2O IF $-=15$ THEN $\operatorname{TBO}$

$\triangle L$ HEHAF（F，E，？？
Taic $\mathrm{C}=[+1$
ヨロロ ロロTロ さ2ロ

¥7ロ IF C＝14 THEN 4ig

$\triangle \operatorname{HCHAF}(F, \Gamma, 7 Q)$
－Oロ $-=\mathbb{C}+1$
4ロッ GOTQ ジロ
$410 \mathrm{C}=4$
49の IF $\mathrm{C}=1 \mathrm{I}$ THEN 4EO

AII HCHAF（F， $\mathrm{C}, 7 \mathrm{P}$ ）
$440=[+1$
45O EnTn 490
$4 \therefore 0 \mathrm{C}=4$
47\％IF $\quad=12$ THEN 5in

$\triangle 11$ HCHAF（R，P，7Q！
$490 \mathrm{C}=\mathrm{O}+1$
56G EnTM 470
ᄃ1の $-=4$


ALI HEHOF（F， $\mathrm{C}, 67$ ！
드므둔
5巨の EnTM 59O
Eng -4

579 IF $G=10$ THEM $\leq 10$
EBO GALI HOHAF（F，C－1，TO：：C
AL HCHAFiF，C，Z．
EOC $\mathrm{C}=\mathrm{C}+1$


6ヵロ FOF HOIT＝1 TO EOO $\because$ ：MEX THATT


HTHAFiO，

 $\square$
AME FПF MOTT＝1 TG EOM ：MEX
T met
틍 $F=19$
$569 \quad C=29$
970 IF $=10$ THEM 710
san CA1 HCHOF（F，O＋1，O）： C
OLL HCHAF（F， $\mathrm{C}, 77$ ）
$690 \leq=-1$
700 EOTO $\leq 70$
$710 \mathrm{O}=2 \mathrm{~B}$
720 IF -11 THEN 7 OQ
 AL HEHAF（E，E，SE）
$740 \mathrm{C}=\mathrm{C}-1$
750 EחTロ 720
$7 \leq 0 \mathrm{C}=2 \mathrm{O}$
770 IF $5=12$ THEM S10


790 「 $=\boxed{0}-1$
800 5ロTロ 779

Q20 IF $\mathrm{C}=1 \mathrm{C}$ THEN QEO
$\mathrm{B} \mathrm{O} \mathrm{C}=\mathrm{C}-1$
940 507！920
은 드응
Q $60 \quad \mathrm{C}=\mathrm{I}-1$
970 $\mathrm{C}=29$
QQO IF $\mathrm{E}=1 \leqslant \mathrm{THEN}$ O2G

AII HCHAF（F， $\mathrm{C}, 49$ ）
9世以 $\mathrm{C}=\mathrm{C}-1$
910 EOTM PgG
$920 \mathrm{C}=28$
9 O IF $\mathrm{C}=17$ THEN 976
940 COIL HCHAE（F，$+1, \square 2!=0$

95 $\mathrm{C}=\mathrm{C}-1$
アニロ 5ロTロ ロロロ
$970 \mathrm{C}=2 \mathrm{Q}$

9gO IF C＝1日 THEN 1020
PQO CAIL HCHAF（F，E＋1，Z2）：
ALI HCHAF：（F，E，Eb）


$192 \mathrm{C}=2 \mathrm{O}$
$10 \pm \Omega$ IF $C=19$ THEN 1070
IOAG CALL HCHAF（F， $\mathrm{O}+1, \mathrm{O})=$
CAIL HCHAF（F， $\mathrm{E}, \mathrm{E}$ ？
1050 $-=\mathbb{O}$



109の $\mathrm{E}=14$
1090 등
$1 \pm 00$ IF $C=24$ THEN 1140
111の［AII HEHAF：（B，E，QT）
112の $-=\square+2$
$1130 \operatorname{GOTO} 1100$
 XT MATT
 9으ํㅡㅇ！
 YT MUIT：：FOF HOTT＝1 TO QQQ $=$ ：MEXT MUST
1179 EnTO 79



 This time limit wi．l
 ute 5 Fould be enough
time to download
 per cell．SOO baud $i=$ arid 10 iFM with a max
imum of $\underset{\text { m minmes }}{ }$ month of May between
the hours of 7iJo FM the loth for the begin with；it wjll be
only the evening of program you want．To each months news let－
ter and download the
 from the 1 ibr＂ary．
and have a modem you would like a progrem
from the 1 ibrary． accessable．If you rary $s=$ sartimg
mate the CONNI UG vice that your 1 ib－
rary is starting to ya！＂The＂lodem Lib－
rary＂will be a ser． ＂Well I＂m gorima tell． ＂What is the Modem
Library？＂you atk． rary＂will open for
the first time． $16 t h$ the＂Modem Lib－ ing newsu f finally
got my modem，which
means that on May be some really excit－
ing news．I finally
 again，time for anoth
er Library article．



## IIRGAEY COMTIMIEN

been going very well． I heve noticed that the last two meetimgs we have had left over program tapes．This may mean we are start ing to reach our sat－ uration point．I think most of the people have the pro－ grams they want． That is not to say the library $i=0 f$ no use to you now．We are getting more pro－ grams each month．so keep checking．

Speaking of new programs，do you get any magazines that have programs the library could use？ How about all those books you have？ Fether then having several people typ－ ing in the same ones． IIm Feterson has a－ greed to monitor which programs are being keyed－in to prevent duplicetions and save wear and tear on your fingers． If you are plannimg to type in a new prom gramı give Jim a call at $2 \boldsymbol{x}-545$ first to be sure someone else j．cn＂t already doing it．I mean after all why do all that typ－ ing if someone has done it and you can get the tape from the library？Don＂t stop typing programs ju though．Maybe you Gan type another one．

If you have a prow gram you want to dow netes and have a mo－ dem，you can always give me a call and transfer it by phone． My number $i=861-127 \%$

I have had a few people $\exists$ Et：me how they can get prow gream from the lib－ rary if they can mot make it to the meet－ ings．That is $=\mathrm{prom}$ lem I suffer from also．I can $t$ make most of them．If you ＂really＂can＂t make the meetings You can call Art Morgan．He hes most of the prom grams on dist and is willing to let people come over to his house between B：00 and 5：00 to make copies of the programs．We do ast： though that you call first and only do this if you just can＂t make it to the meetings．Beceuse it could become an in－ convenence to Art．

Well that＂$\Xi$ about it for this month．I hope to hear from you．Bye until next month．Fiod．

## －TE T：TGE 

## Ay Mite Ballyan

Did you over

hes the informetion
ソou rucerded after you
 your progran？Here $i=$ mernirc
I2nguege program thet till chotathe

 more then arc pumgrem tmertire
－Engheget＝en to in the computar jt ตกㅌ．

Thi m proguzm ロeme in Pert，meiray the idse，$上$ Ence from ＂EMCYY MOMNTATM MTMETY

MINEFE＂UML THFEE MO． SIX Ey Mite Holmes．

 mede（TEXT）for the people uho kent ta 드e TEYT mcode．

If the progrem ic

grvirmomert．211 the


 they mily ロe
 fon＂t forget the $\because 21$ ue in riEDF？． $\Delta 1 \pm 0$ the mode mon！d上e fhenger bert to GFOFHIC End the
 returning．

Sロ thet vou got ㅍme prertirefigur－ ing 2ut 킅mbly

 for the progrem．If you Gen＂t figure mut Hout to wombit＝ell me ㅌme gvorirer The progrym 4ill cytelog more than onc 그́․․
 4ill then the Gelling plere．

THi＝progren＝er
to oxpended to do murn more：bical progrem 士vor and 토트․ Mumber of dic！


 wnot mote．

Everyuse the gener－ ＝1 memtorchip mextimg
的＂：

 irg to diccusce 루
 تrytimey EO if you fave any protleme ！
 Im\％me up．





Ay laya hinhlo
Thí month 1 mea
 title ma the＂Home Computor Megzzino＂． Intさged ロf Yolume four Number tung， uhi mh nye 토ppocod to come out the ond of Merrh．Since the Megㄹine hes not yot
 ソorting ber！ta Yol－ ume four Kumbor anc．


 tggether，Yot！！！In ㄷさまさiEticc colmmon
 트…es thet＂Home Computar Megexine ic publísted MnNTH！
 1iEhing Ea．．．＂

I ！بan！d met per－ sonel1 y rocommend eny

 time teceuce of thc
 tueren iscuces Houm

 mot forget to oryor ソour－＂ MiEf＂unteifh comes froe with yout ordor－
 you zeregaing to gr－der tha＂পr Tepe＂，

 to the formor＂q口＂er Home Computer Mega－

 publígtion ：4ent from

 puters of which TNE ícthe g9／40．Tho
 ＂Forusing EvモIu트븐 ly（mexnimg arne），ar ＊$\Delta \mathrm{prl}$ T Commarapo

 Hod on the fyont E日vor are the Frir or ソi＝ー30，Mon，2 megy－

 thrust on TI yot hes －ightoon $\triangle p p l=5 \pm$ Eevortogen TI＇$=10$ the tehlogt conteryts．

 －f program 1ítingㄷ for tho TI，〔트응！
 4ritton in othor

 ！©evertoorn in 211）
 for TI．＂Loga Times tm＂hed ture of the throsertivige for the TI．＂Froduct


 fifteer！．Thi＝doeser＂t


 for TI gumbucively

## 

 is mhere TI Geme out ！ith foup out of four gemes．The mere for the TI entirely and tho for other compu－ terc．A11 the TI progr anc $\quad$ ro in bes i－with the ovepption
 is greet for the men－



 I まm geing to ロe up fyant uith the ©stemtI：1－ngumge ar

Loge myogr ㄹmmers I

languygo and cen not
－Gvigut thom mpop－ grly I ธould 븐 ＝mon holr from ㅌomeone in githor grour to rovig！u thic magazine for oth－ orcin the group． Until then youn
！i11 hコve to 드투ー mino for youtcolyoㄷ．

In the foup monthe
that it tom！toget fyom Novembor geto Uo1um？four Mumbor are ir Merr！g4 ！ex ㄹarg byit for 三

I do ret tnout if they use ㅋ．tyrouri－ tar ar ㄹ．emmuter
 sor，hut uhy not fiel it mut the fome Mhether ar nat vou
 ́ㅗㄴ․․ The other ＝uggestion bould be $\pm 0$ guit foolirg ㄹ．gund with the peo－ ple and just mhenge the made thet it Mi1 be putliched to ＋hat of Ei－manthly ar nutartory to put it Ont in f $¥$ ㅌำign．

M！Her？I firct Gelled〔Merch 2n！an thoiv 1－8пи－928－2212 numbar
 Eopy Mould to on tho ！ニソ？ 1 ！
 March end I chould refeive it by mid $\Delta p-$ ril．$\Delta \leq$ vou $=$ n toll by thic 2 titue I did
 the moxtimg I

 tion Uoln fon foum Mum－

 ing gut $\because$ th the ered of


Continilen

MAESTIMES CONTINIEE
 naes thi sound lites $\underset{\text { gentern }}{ }$ Moroud Thi $=$ mazenc thet volumn four K！um－ セํㅏ tu！
 ！ít gut the docer EnITOF：MDTE： Пn M My firct I az11
 or the pthar ond 등 ＂the currorat iscue hヨs begn ㄸhimper．．． teon shipped．．tegn ㅌhipper．．．．．＂

## 日y Gtuart Hillizme．

Thi $=$ Icture I mily
 times＂Hmme Computou Eampondium＂（HCC） 2nt＂Enthusi （9Q）
The $\Delta d \leq$ ant－！！ロigh the きr士iヒles ！セy



 fロッ one bould lite to Eex more Eubctarter
上の5さ5 42．75．

Some of tho
 gend Fiegire for or－ يmplo． $\operatorname{On}$ tha oth－ or hend 1 foel per－ hyrctre oditnre

 more progrem list－

 gロEEir．

## Eill Ermons

Mロuld do mel1 to คきy more ᄅttertion

 fno more ebout holn
 couret to torn！，三nd



for incwit humor！．I Lrout ㅌome helpful．

 gripirn conctently he deoc 211 of th응


I 1itwor EATE but mevts he could metm it ミソヨilahle ロr tヨre


 11！日 it holds pro－ mice in tocoming ᄅ


The rovi gut 를 níse but hou zbout ㄷḿa more progºm
 른어 themcelvos do


 ミさのッソ tロ11ำの
（gacip），znd more herdugre znd＝oft－ ！are ㅌtutf，thing
 ！！se of ！ロuld be bet－士®ケ．

Mou！lot me 5 ㄹ．
き
 the neutclettorc



 Sproedirg rumort
 （ructuclottorc 2 너
 1055 mredityg．©o Dore＂ロ．f．？
 THE EW
EnTMR！
 Iy done it．Ynul bne！！ mho vnlu zro，ソロu geve gre of thoce progremc
 ！noun the ares ！！ith the copyonght thet

Yout thought \＆ too mumh to fay for it．You！，！！to put－
1ichood hou！to brool：


 not think of the re－ procuscinanc youl nily
 these thigge Eut do


بi！ 1 En？ソive，THEM
 ing progreme vouran be proud thet youl por
 THEME demise．ME
 gut．life arg lic？
us 란 the grose uho

 gremming lis are not
 Ms dont tunt to typo
 rether buy THEMS 1 out

 thi $=$ Etuff is groet

 to tell ソロut thic ソロ！ probybly ب！ould nat un dorstend 르y唯ํ． I まm ！IC：The hind
 the huミy houlee tiffe who hes vory little timato droem up ed－
 progrome far my children，the guy Mhの just or for que reesmon or三nother hould rathor 10ミve the progrom－ mirg ta THEM．Thㅌ tyentor mho meeds THEM．．．．！thy 2 m ب！－iting to Yロur
EEceuss 1 ！ant Yロuta styrt thinking more
 19：玉 about ソru！mavte ther：Youl could become IIS or THEM．

AnMNYMחIE ．．．

## $\square-D-\sqrt{-1}-\mathbb{H}-$

以上rmber G以上5tionmeirm－

Name： $\qquad$
Fhone： $\qquad$
Address： $\qquad$

I own the following hardware：
$\qquad$
$\qquad$
$\qquad$
$\qquad$
I own the following software：

－－1－


I intend to purchase the fol－ owing hardware within the next year
$\qquad$
$\qquad$
$\qquad$
$\qquad$

I intend to purchase the fol－ lowing software within the next year
$\qquad$
$\qquad$
$\qquad$
$\qquad$

I will help the User＂s Group the following ways．
$\qquad$
$\qquad$
$\qquad$
＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊Newsletter（see Editor）chec：
one
Assistant Editor ..... ［］
second printer［］
writers［］
technical ..... ［］
games［］
reviews［］news［］
labeling［］
coalating［］
folding［．］

Fublicity editor［］
program editor［］
genneral typists［］
Correspondance editor［］
＊$* * * * * * * * * * * * * * * * * * * * * * * * * * * * *$
Demo committee［］
Tatiing notes at meetings［］ Other（Flease specify）
$\qquad$
$\qquad$
$\qquad$
$\qquad$

I bought my computor because： Frice［］
Enertainment［］
It seemed like a good idea［］ Newsletter Articles［］
Eusiness［］
Word Frocessing［］
Education［］
To meet women［］
None of Your Eusiness［］
All of the above［］
One of the above［］

I grant permission for this information to be made avail－ able to other user group mem－ bers．

Signature： $\qquad$
Date： $\qquad$
Feturn this form or a copy of it to：
Art Morgan 3087 Erandon rd． collumbus dhio 43221

## EDMONTON USEFS GROUF

F O EOX 1198 E

## EDMONTON ALEEFTA TSUSLI

## 1

$-1$

