## PLUS NO. 2 <br> TRIEMICRO <br> EXCHANGE

## PLUS 4 OWNERS: READY FOR ADOPTION?

The pLUS EXCHANGE Users Group offers you a support network, a monthly newsletter, discounted software, peripherals, and books. Savings can pay for your membership. Read On For a Sampling.

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PUBLISHER'S NOTE

The response to our first issue was extremely positive. The response was strong enough to convince us to better organize the plus EXCHAVG, including repanding our newsletter to its current ormat. The time it took to organize caff responsibilities and material for future issues was worth the delay in publishing issue \#2 so that we can avoid errors in program listings like the one in the first issue (see ERRATA).

Many of you wanted to see if we were serious, if we would continue the support, etc., before becaning members. Your hesitation is reasonable given the treatnent of the plus 4 by Commodore and retailers. I encourage you to correspond with me actively regarding your needs -- we are reasonably good at what we do, however, mind-reading is not one of our strong suits. We really do care about your problems, and that's not just editorial hype.

The QUESTION BOX will remain a regular feature in the newsletter. The first batch of correspondence we had was easily categorized into the same types of problem areas. The format of the QUESTION BOX seems the most efficient way of handling 'hese inquiries. Besides, those of you ho ponder in icy silence can benefit from the more vocal of our members. Where a question was not of general interest, individual responses were sent.

We have a dedicated line, 714-832-6719, to answer Plus 4 questions. As we grow, we may be able to support the expense of an 800 line. WE NEED YOUR HFIP TO DO THIS!! Our list of Pl us 4 users canprises approximately 6,000 people. Our accounting records fron Coimodore show between 40,000 and 60,000 machines have been sold in the U.S. Obviously, we are reaching only a small percentage of cur "orphan cormunity". As our base grows, we will pass the dividends on to you. We are a small company surviving in a very irrational personal computer market. We need your support as much as you need ours. Pass the word along. In the inmortal words of Alan farmel, "Tell a Friend'

For those of you who ordered Commodore product and are still waiting, take heart! Although we were assured that stock was readily available, we have had logistical difficulties with Commodore. By calling some national accounts, however, we have located many of the Plus 4 titles and are expecting shipment on September 5 . With a ready source of product, future orders will be expedited. Those of you who have had similar experience in obtaining information or product from Commodore may empathize with our frustration -- it can become an almost full-time occupation trying to obtain replies. The quest goes on, however, and secondary sources have proved fruitful.

Q. How do I access 38 characters of text in the cells of my spreadsheet?
A. Several of you reported problems "entering" 38 characters in the cell of the spreadsheet even though the cammodore manual said that you could. This may just be a misunderstanding.

You can only enter 38 characters in the cell if you are in either text ( $C=$ and $T$ ) or formula ( $C=$ and $F$ ) mode. 11 characters is the limitation on numeric cells.

When printing the spreadsheet, the blkmap command truncates all cells to eleven characters. Therefore, if you have a text cell with more than 11 characters, it will be truncated when it is printed utilizing the blkmap command. To avoid truncating a cell which is greater than 11 characters, use the MAP cormand and cursor movement.

It is sanetimes still a problem having a cell greater than 11 characters which you want printed because the columns will not necessarily line up correctly. For long column or row headings, I suggest using two cells or editing the headings in the word processor.
Q. I cannot print my 80 column spreadsheet correctly. The columns are all out of alignment and the spacing is all wrong. How can I change this?
A. Remember that when using the blkmap command, a maximum of 7 colums (i.e., 77 characters) can be transferred to the word processor. If, however, you are embedding the 7 colurns in text which has margin settings, the columns may not fit. For example, if your text has a left margin of 10 and a right margin of 70 , the amount allowed for printable characters per line is only 60 characters. 7 columns is more than 60 characters and you will experience a strange wrapping effect if you try to print 7 columns, with staggered lines forming a pyramid effect.

To correct this problem, reset your margins. In reverse video, type lmarg00; :rmarg77;:nowrap. You must use the double zero -- the system will not process a single zero. The nowrap means that you don't have to type a carriage
return at the end of each line.
If you don't want your columns to exceed the margin settings of your text, then you can only transfer over to the word processor as many columns times 11 characters as will fit within your margin settings.

WE WELCOME YOUR QUESTIONS AND SUGGESTIONS. KEEP THE QUESTIONS COMING IN SO WE CAN HAVE MATERIAL FOR NEXT MONIH'S NENSLETTER.

## 



## FROM OUR RFADERS

I have noticed the insertion of "auto pointers" by the Plus 4 in the following manner:

First, I always enter a pointer prior to beginning to type a paragraph. The pointer advances from line to line until a CR is entered.

In conjunction with the above procedure, when typing in a document and the screen becomes full prior to entering a CR , then upon entering the CR, another pointer is automatically entered by the $\mathrm{w} / \mathrm{p}$. Of course, if a $C R$ is entered prior to filling up the screen, then a pointer must be entered at the beginning of the next paragraph.

## Dan Griffis, APO, San Francisoo.

For those who prefer the regular quotation marks rather than the dnuble shifted 7, simply type in reverse video: asc27;34; That code is followed by the word or phrase to be enclosed in quotes and is placed at the end of the phrase as well.

Editor's Note: See the double quotes in message from Dan Griffis above. When we received this valuable tip from Steve, we tried it on the commodore printers. ASC34; will work without the asc27; Thanks!

Steven Love, Pacific; MO.

R tf:rc
papersizel8; :pagelen9;: O؟--
FROM: 'Tri Micros-14072 Stratton Way Santa Ana, CA 92705<--
$<-$
<-
TO: R flda; O R fld2; O<--
R fld3; O<--
R fld 4 ; O R fld5
eof?
These examples serve as illustrations of the ways in which you can use the papersize, pagelength, and nextpage commands to customize printing and align your spacing. Any further comments or questions you might have will be welcomed.

NEXT MONIH's COLUMN: Using tile spreadsheet for budgeting, planning shory, ing, maintaining records on real propert, and on stocks or bonds.

## ERRATA

In the rush, we inadvertently printed a progran listing with errors in it. Although the progran was run on the plus 4, we printed the listing on the letter quality printer which was connected to the c-64. As a result, the $\mathrm{C}-64$ did not recomize some of the BASIC lanquage and printed errors. Since I did not ask Dave Johnson to proofread the listing, we published it with errors. Many of you commented on it. AEA CULPA!

1010 was 1010 国IT2:CLR.
It should be 1010 GRAPHIC2:SCNCLR.
1140 was 1140 DEF I,OX,OY, XR, YR, SA, EA, A, IC
It should be:
1140 CIRCLE $1, O X, O Y, X R, Y R, S A, E A, A, I C$
1180 REM A PLUS/4 IS SEEING AND
1190 REM EXPERIENCING ITS
1200 REM GRAPHICS ABTITY
1220 REM ABOVE IS A CONIC CIRCLE

QUESTION BOX
Q. How can I access the special functions of my non-Commodore printer with the built-in word processor?
A. If you are working with a non Commodore printer, you may have a ''plug compatible" printer or varying interfaces. In either case, software in the interface or plug enables your computer and printer to work together. One reason people purchase a non-Commodore printer is to be able to do bold or shadow print, italics, etc. Many of you wrote in to say that you experienced problems with these commands.

Depending on the interface, you may need to be in either transparent or Commodore emulation mode. The interface manual will instruct you on which switch you need to turn on or off. Some interface software working with the built-in word processor does not apparently convert commodore ASCII to standará ASCII. Other interface software does do the conversion. If you attempt to access the special functions with the ASCII codes mentioned in your printer manual and do not get results, you will have to do the conversion yourself.

To do the conversion, consult the printer manual for the appropriate ASCII cole for the function you desire. If the ASCII code is between 64 and 95, add 32 to the code indicated in the manual. If the ASCII code is greater than 95, subtract 32 from the cole indicated in the manual. ASCII codes less than 64 do not need to be converted. For instance, if the printer ASCII code for underline was " 66 "', you would type in reverse video 'asc27;98;" rather than ' 'asc27;66;' '.

The asc27; is the escape which is normally part of the printer manual instructions for accessing special functions. With some interfaces, we have found that you need two escape sequences, such as, "'asc27;27;98;'. The interface manual will normally instruct you if two escape sequences are necessary.

The Commodore software manual errs in its instructions regarding multiple ASCII codes. If the ASCII code is one which needs an escape (asc27;), then you cannot
just string codes together, as shown in the manual, asc27;66;89;. The system needs to know that an escape is being sent with each code, therefore, the proper format is asc27;66;:asc27;89;:. Sometimes, this can be a problem as the system will only process six ASCII commands per line. With the enhancement package, PTI'S EXIRA, you are able to process up to sixteen ASCII codes per line. This feature of the enhancement package gives more flexibility if you need to access mutliple escape codes.

Although many printers use two separate codes for beginning and ending a special feature, several printers, such as the Epson, use the same code followed by a " 0 " or " " 1 " to begin and end a printing feature. If this is the case, type "'asc27;xx; 48;" with 48; replacing the 0 . Use "asc27;xx;49;" with 49; replacing the $1 . . \quad$ In these examples, the " xx " refers to the actual FSCII code for the feature as indicated in the printer manual. In testing the asc48; and asc49; with the Gemini 10 printer, we found that the asc48; did not work properly as it had with other printers. In this case, your only recourse for turning off a special code is to use the general code of asc64; We are attempting to diagnose the problem and will follow-up in the next newsletter. If any of you have any suggestions, please let us know.

SUMMARY. When working with interface or plug-compatible printers if you are having problems, add 32 to ASCII codes between 64 and 95, subtract 32 from ASCII codes greater than 95. If you still have problems, you may need to use two escape sequences (ASC27;27;). If working with more than one code, each requiring an asc27; precede each code by asc27; and separate the codes with a colon. Instead of 0 and 1 , use 48 and 49 .
Q. I have followed your instructions, but I am still having problems with the underlining function. It sometimes doesn't work at all, and sanetimes does not obey the margin settings. How can I correct this?
A. Certain printers disable

ASCII cormands when they execute a line feed to advance printing. Some printers do not. In the first case, the printer will
preserve your margin settings while underlining. In the second case, the underlining will begin at the first space in the left margin regardless of your margin settings. If your underlining problem is the one described, there has been no provision made for the non standard printer underline. If many of you have the problem, we will address it as an update to our eninancement program, PLUS EXTRA. Dlease let us know if you have encountered the under lining - margin conflict problen.

The other underlining problem reported has to do with attempting to underline blank spaces. Again, some printers underline blank spaces, others do not. If you are sending your printer the appropriate underlining command (remember the ASCII conversion discussed above), and are still not able to underline blank spaces, try the following. In reverse video, enter the command for unaerlining. With reverse video off, type a period or any other printable character. Use the space bar to put in as many blank spaces as you desire. At the end of the blank spaces, type a period or other printable character. In reverse video, turn underlining off. Inserting a printable character at the beginning and end of underline is the only solution. Your printout will look like the following:

Remember that the Cormodore 1525, 1526, 801, and 802 printers do not support underlining at all. In these instances, no underlining can be performed because your printer is not capable of supporting the function.
Q. How can I get the word processor to generate a form or letter which reads only. one record from the file manager?
A. The easiest way to do this is to indicate the record number of the record you want printed, followed by a 'tf:rc'" etc. DO NOT place an EOF? at the end of the word processing file and only one record will be printed.

You will find this a useful feature if yo. want to refer to a single record in $\alpha$ body of text and for source references in term papers or footnoting.


The page length reverse video command determines how many lines of printed text will be allowed within the physical size before a page feed is given, advancing the paper to the next label or form. In determining page length, remember that the system interprets either a blank line with a carriage return (a reverse video arrow) or a line containing format cormands with a carriage return as a printed line. For purposes of defining page length, a line can be thought of as an printed line of text or as a line with a carriage return. A typical example might be:

> 1 R tf:rc:papersize6;:pagelen4;: <--
> 2 fldl; OR fld2; <--
> 3 fld3; <--
> 4 fld4; O R fld5; $<-$ eof?

Notice that although only three lines of text will be printed (the lines where fields are positioned), the pagelength is actually set to 4 . This is because a carriage return follows the format line. Although the format line includes no printable text, the carriage return is a line to the system and must, therefore, be included in the line count when determining pagelength. Remember, that the pagelength must be a minimum of one space less than the papersize.

Assuming you wanted to begin with record no. 10 and had a field with company name you wanted to print, you could use the following:

## R rclo;

1 tf:rc:lmarg3;:papersize6;:pagelen5;:<--
2 fldl; O R fld2; <-
3 fld3; <-
4 fld4;
5 fld5; OR fld6; <eof?

Notice that the page length commard was adjusted to accomodate the extra line calling out the coripany nane necessary to printing the label.

Ii is possible to use the merging format commands to produce multiple copies of the same label, form, or letter. To do this, you first prepare a word processing file as if you were preparing a file that merged with the file manager. Let's prepare a label as an example.

## R tf:rc

1marg3;:35;:papersize6;:pagelen4;:<-center O PLUS EXTRA - -
R center 0 by<--
R center O David W. Johnson<--
R eof? 0
Before atterpting to print this label in multiple copies, insert a file manager data disk in the drive. In cormand mode, type " $t \mathrm{tf}$ " to access the file manager. Type "tf" again to initialize the data disk. In cormand mocie, use the highrc camand to set the high record to the number of copies you want. For example, if you want 50 copies of the above label, type "highrc50;". Return to the word processor, using the *p to print the labels.

It does not matter what the record structure of the data disk is, and it does not matter if the records are all blank, so long as the disk is a valid file manager data disk. In this way, when we begin printing, the word processor will think that it is reading the file manager and being continuously printing records. Since no fields or titles are referenced in the body copy, only the text included between the "tf:rc" and the "eof?" will be printed. The labels or other text will print continuously until the program reaches the highrc number and then printing will end.

The only limitation to the multiple copy application is the 99 line limitation for the word processing file, since you cannot merge linked files with the file manager. You can even mix text with file manager date.: as in the following example.

## MANIPULATING THE FILE MANAGER

One of the strongest features of the built-in software is the integration between the word processor and the file manager. The integration differs from tre itional "list merge" in its total design flexibility. You can position the contents of a field anywhere on a line, embedded in the text, and in any order you want. To maximize the use of this function, there are several things which should be understood.

When working with integrated files, the pagelen and papersize commands deserve special note. Even though the nomal length default in the word processor is eleven inches (papersize66;), this default only defines the physical size of the paper. When you are cycling a listing or form through various records, each record will be printed sequentially on 11 inch: paper without a page feed between records unless the page length is defined.

The example below will illustrate the point. The " $R$ '" means that you have turned reverse video on, the "o" means that you have turned reverse video off. The ":--" indicates the screen display of a carriage return.

If you were using standard $81 / 2$ by 11 paper, you would end up with two or more letters typed per page of paper. To force a page feed, you should add a nextpage cammand in reverse video before the 'eof?'

The bottom of the letter would then read:
Maria D.S. Andrade<--
$R$ nextpage:eof? 0
When producing mailing labels or forms, such as shipping forms or invoices, you may find it more useful to set the pagelength command rather than the nextpage command. The page length command is more accurate in determining lines of printed text, and is more appropriate for working with sequential short lines of test.

In designing a file to print mailing labels, you should specify papersize as well as pagelength to ensure proper alignment of printing on the label. To determine the appropriate papersize, use the scale of 1 inch $=6$. In other words, if you are using one inch labels, you would type papersize6;. Using 3 inch labels, you would type papersize18; etc.

```
R tf:rc
lmarg5;:rmarg75;: 0<--
July 27, 1985<--
<-
<--
<--
R fldl; O R fld2; <--
fld3; <--
fld4; O R fld5; O <--
<--
Dear Mr. R fld2; O: <--
<--
Your balance of R fldl0; O is past due. If there has been an oversight in y
our accounting department, please expedite payment. As you know, timely pay
ments provide us with the cash flow to be able to extend credit terms in the
    first place.
<--
If you have any questions regarding your balance, please give us a call.<--
<--
Sincerely,<--
<-
<-
<--
<-
Maria D.S. Andrade<--
R eof? O
```


## ALPHABETIZER

```
50 PRINT "s"
100 PRINT "SQQQ THIS PRINTS A DIRECTORY"
110 PRINT "Q IN ALPHABETICAL ORDER."
120 PRINT "Q PRINT ON RSrCREEN OR RPrRINTER?"
130 GET OD$:IF OD$="P"OROD\\<>""THEN 150
140 GOTO 130
150 PRINT "Q ** READING THE DIRECTORY **"
160 DIM F$(144):B=6:C=2:QS=CHR$(34):RS ="R":SPS=" "
170 OPEN1,8,0,"$":GET#1,A$,B$
180 GET#1,A$,B$:REM LINK
190 GET#l,A$,B$:NB=ASC(A$+CHR$(0))+256*ASC(B$+CHR$(0)):REM # OF BLOCKS
200 GET #l,B$:IF ST<>0 THEN 290
210 IF B$<>CHR$(34) THEN 200
220 GET#l,B$:IF B$<>CHR$(34) THEN S$=S $+B$:GOTO 220
230 GET#1,B$:IF B$=CHR$(32) THEN 230
240 C$="":IF A=0 THEN C$=" "
250 C$=C$+B$:GET#l,B$:IF B$<>"" THEN 250
260 FS(A)=LEFT$ (R$+Q$+S$+Q$+SP$,19)+LEFT$(C$,B)+" "+MIDS(STR$.(NB)+SP$,2,C)
270 S $=" ":R$=" ":A=A+1:B=3:C=5
280 IF ST=0 THEN 180
290 CLOSE 1:N=A-1:BF$=MIDS(STR$(NB)+" BLOCKS FREE,"+STRS(N)+"FILES.",2)
300 PRINT" Q ** SORTING DIRECTORY **"
310 M=N
320 M=INT(M/2)
330 IF M=0 THEN 470
340 J=l:K=N-M
350 I=J
360 L=I+M
370 CM=CM+1
380 IF FS(I)<FS(I) THEN 440
390 T$=F$(I):FS(I)=F$(L):F$(L)=T$
400 SW=SW+1
410 I = I -M
420 IF I<I THEN 440
430 GOTO 360
4 4 0 \mathrm { J } = \mathrm { J } + 1
450 IF J >K THEN 320
460 GOTO 350
470 IF ODS="P" THEN OPEN 4,4:PRINT" Q ** PRINTING DIRECTORY **":CND 4
480 IF OD$<>"P"THEN PRINT"S"
490 C=2:FOR I=0 TO N:PRINT RIGHT$(F$(I),C)LEFT$(F$(I),LEN(F$(I))-C):C=5
500 NEXT: PRINT BFS
510 IF ODS="P" THEN PRINT:PRINT:PRINT:PRINT#4:CLOSE 4
520 IF OD$<>"P" THEN PRINT"Q USE 'GOTO 480' TO VIEW LISTING AGAIN"
```


## BANK DUMP

5 REM-BANK DUMP
10 PRINT"s": A=1:B=65535
20 PRINT "p"; CHRS (PEEK (A));
30 IF $A=B$ THEN 50
$40 \mathrm{~A}=\mathrm{A}+1$ : GOTO 20
50 END

## MULTIPLICATION <br> DRILL

100 REM PROGRAM WRI TTEN BY CHRIS JOHNSON
110 REM ASSIST A GRADE SCHOOL STUDENT WITH HIS OR HER
115 REM MULTIPLICATION TABLES BETWEEN 2 AND 12
120 REM $N=T H E$ IDENTITY OF THE MULTIPLICATION TABLE CHOSEN
130 REM M $=$ THE RANDOM NUMBER SELECTION BY THE COMPUTER
140 REM $Y=T H E$ PRODUCT OF $N * M$ REM X $=T H E$ USERS ANSWER
150 PRINT＂s＂：REM CLEAR SCREEN
151 DIMTB（12）
160 PRINT＂${ }^{\circ} 000$
160 PRINT＂QQQ
161 GOSUB $2000:$ PRINT＂S＂
HELLO．HOW ARE YOU TODAY？＂
162 PRINT＂S ${ }^{\prime}$＂：REM CLEĀR SCREEN AND CURSUR DOWN
165 PRINT＂HOW ARE THINGS IN YOUR MATH CLASS？＂
170 PRINT＂ $\mathbf{Q}^{\prime \prime}$ ：REM CURSUR DOWN
175 PRINT＂WOULD YOU LIKE SOME ASSISTANCE WITH＂
180 PRINT＂YOUR MULTIPLICATION TABLES？＂：PRINT＂Q＂
190 PRINT＂ 11 IlIF YOU DO，YOU CAN CHOOSE ONE OF THE TABLES＂：
195 PRINT＂BETWEEN 2 AND 12.
200 GOSUB 2000：PRINT＂s＂
205 PRINT＂1 1 1｜THEN YOU WILL BE ASK TO ANSWER＂
210 PRINT＂${ }^{\text {SIX OUESTION，ONE AT A TIME，IN THAT＂}}$
215 PRINT＂PARTICULAR MULTIPLICATION TABLE．＂：PRINT＂Q＂
220 PRINT＂$\$ \】 1 WHEN YOU ARE FINISHED WITH THE＂
225 PRINT＂PROGRAM ENTER 00 TO EXIT．＂
226 GOSUB 2000 ：PRINT＂s＂
230 PRINT＂SQQ＂：PRINT＂ENTER YOUR MULTIPLICATION TABLE＂
235 PRINT＂FROM 2 TO 12 ＂；：INPUT N：PRINT＂s＂
240 IF N $=00$ THEN 500
245 IF（ $\mathrm{N}>=2$ ）AND（ $\mathrm{N}<=12$ ）THEN 280
250 PRINT＂YOUR SELECTION IS OUT OF RANGE OF＂
255 PRINT＂THIS MULTTPLICATION TABLE．＂
260 PRINT＂${ }^{2}$＂
270 PRINT＂SELECT A NUMBER BETWEEN 2 AND 12．＂：PRINT＂Q＂
271 GOSUB 2000：PRINT＂s＂
275 GOTO 230
280 IF N $=$ INT（N）THEN 310
285 PRINT＂QQ YOU HAVE ENTER A NUMBER THAT IS AN＂
290 PRINT＂INTEGER，AN INTEGER IS A WHOLE NUMBER！＂
295 PRINT＂SUCH AS 3．6．8，OR 12．＂
300 GOSUB $2000:$ PRINT＂$^{\prime \prime}{ }^{\prime \prime}$
305 GOTO 230
310 FOR A $=1$ TO 6
311 PRINT＂S＂
$312 \times 7=0^{\prime \prime}$
$312 \times 7=0^{-}$
$315 \mathrm{LET} \mathrm{M}=\mathrm{INT}(11 * \operatorname{RND}(1))+2$
316 GOSUB2100：IF X8 $=0$ THEN 318
$317 \times 7=\times 7+1: I F \times 7<21$ THEN 315
318 IF X7 $>20$ THEN 319
319 FOR $I=1 \mathrm{TO} 12: \mathrm{TB}(\mathrm{I})=0: \mathrm{NEXT} \mathrm{I}$
320 LET $Y=M * N$
325 PRINT＂QQQQ WHAT IS THE PRODUCT OF＂；N；＂TIMES＂；M
330 PRINT $\frac{\text { N＂＂＂} ; ~ M ~ " I S ~ " ; ~: I N P U T ~ X ~}{\text {＂}}$
335 IF X $=\mathrm{Y}$ THEN 400
340 PRINT＂Q BOY WAS THAT AN ILLOGICAL ANSWER．＂
345 PRINT＂BUT THAT IS ALL RIGHT．TAKE YOUR TIME！＂
350 PRINT＂＂Q＂；YOU WILL DO BETTER NEXT TIME．＂
355 GOSUB $2000:$ PRINT＂$^{\prime \prime}{ }^{\prime \prime}$
360 PRINT＂QQQ WHAT IS THE PRODUCT OF ${ }^{n} ; N ;{ }^{\prime \prime}$ TIMES＂；M
365 PRINT $N ; " *$＂M＂IS＂；：INPUT X
370 IF X $=Y$ THEN 400
380 PRINT＂Q THE CORRECT ANSWER IS＂：$Y$
381 FOR $Q=1$ TO 40：PRINT＂－＂；：NEXT Q
390 GOSUB 2000：PRINT＂$\underline{s}^{\prime \prime}$
400 NEXT A
410 PRINT＂QQ DO YOU WISH TO CONTINUE WITH YOUR＂
415 PRINT＂MULTIPLICATION TABLE．RYES／NOr＂；：INPUT AS
15 PRINT＂MULTIPLICATION TABLE．RYES／N
20 IF（ASく＞＂YES＂）AND（ASく＞＂NO＂）THEN
430 IF AS＝＂YES＂THEN 230
440 IF AS＝＂NO＂THEN 3000
500 END
990 REM COMMANDS TO USE BY DELETING REM STATEMENT
991 REM CLEAR WINDOW PRINT＂s＂
992 REM CURSUR DOWN PRINT＂QQQQ9＂
993 REM PROGRAM LIST
994 REM SAVE＂MATH1＂， 8
995 REM SCRATCH＂MATH＂
996 REM OPEN5， 4 ：CMD5：LIST：REM TO PRINTER
997 REM CLOSE 5：REM CLOSE TO PRINTER
2000 REM GOTO INPUT／OUTPUT DEVICE
2010 PRINT＂QQQQQQQQQQQQQ RPRESS RETURN TO CONTINUEI＂
2020 IO\＄＝＂＂
2030 GETIOS：IF IOS＝＂＂THEN2030
2040 IF IO\＄＜＞CHR\＄（13）THEN 2030
2050 RETURN
2100 REM CHECK IF M IS USED
$2110 \times 8=0:$ FOR X9 $=1$ TO 12 ：IF X8 $<0$ THEN 2130
2120 IF M $=$ TB（X9）THEN $\times 8=\mathbf{X 9}$
2130 NEXTX9：IFX8＝0 THEN TB＝TB＋1：TB（TB）$=\mathrm{M}$
2140 RETURN
3000 PRINT＂QQQ I AM HERE WHEN EVER YOU WANT ME！＂

## LEGEND FOR PROGRAM SYMBOLS

```
S : SHIFT CLR/HOME
S : CLR/HOME
Q : CURSOR UP
q : CURSOR DOWN
R : REVERSE VIDEO OFF
r : REVERSE VIDEO ON
```

PLUS EXTRA (TM3504)DISK
A MUST for serious users of the plus 4! Sort file manager files up to 60 times faster. A 3-field sort on a full disk takes a maximum of 12-15 minutes instead of 36 hours. With the word processing enhancements, you can now double or triple space word processing text files, and preview your text before you print it. Print preview allows you to see page breaks, special printing formats, and justification, even with linked files so you can edit whole docunents. Disk utilities provide the ability to rename a file, format disks, and back-up your data or program disks. We are adding more enhancements (like mathematical operators in the file manager) and as these are released your current plus Extra disk will be updated for $\$ 5.00$.

PLUS GRAPH (TM3503)DISK
Because PIUS GRAPH is integrated with the Plus 4 software, data already prepared using the spreadsheet can be used with this program. You can graphically display this information without having to re-type or re-format the data. These graphs can then be incorporated anywhere in a report or letter prepared with the word processor. Line graphs and bar graphs can display up to three variables in one chart. Both positive and negative values can be displayed. In the bar chart, each of the 3 variables can have up to 12 horizontal increments. The line graph can display up to 50 horizontal increments for each of the 3 variables. You can create pie charts with up to nine values. All pie chart sections are labeled and both absolute values and relative percentages are shown on the chart. Text mode is incorporated with each graphic screen. You can enter text to title a graph, or to type in a full description of each variable. A surprise! - the graph editing mode can be used to do free form drawing and dump the screen to the printer. (No color though, just black and white).

RUG RIDER (TM8401)DISK
Armed with a magic carpet, Ahmed leaves his homeland to seek his fortune. Traveling through forests, caves, and castles, he gathers keys to gain experience and power. These are necessary for his final conflict with the Evil Genie. With map in hand, you accompany him as he seeks adventure through stange and wonderful lands. At each site are a series of keys which you must pick up in order to penetrate the walls surrounding the treasure. Within the caves, you encounter falling boulders, bats, and evil birds. The forests contain rabbits and snakes, as well as deadly arrows shot by wandering thieves. Inside the castles are frogs and ghosts armed with magic bolts trying to defeat your quest for power. The Evil Genie dwells within one of these castles, and will defend himself at all costs. Using the experience and magic gained from various adventures, you will go one day to encounter the Genie ... for such is the way of a Rug Rider. 32 rounds of play and 3 difficulty levels provide constant challenge for players of all ages.

## GHOST TOWN (TM8 405) DISK

Ghost Town is a single player graphic adventure game written especially for the plus 4 computer to take advantage of its special graphic and color abilities. The game blends story line and clues to challenge thinkers with a sense of humor. As a parapsychology student, your assignment is to quiet the spirits who haunt the town of Rosedale. Maintain your strength and your mental alertness as you search the town and its immediate surroundings to locate the hauntings. Each personality tests your wits, and can engage you in exchange for barter and tools. Over 50 objects and people, in multiple encounters, enable you to discover what actions will calm the restless spirits, causing them to finally shed all earthly bonds.

EASY TUTOR (TM4 304)DISK
This progran presents 10 lesson plans in the language BASIC. Each lesson begins with a review of the last lesson's assignment, followed by an explanation of the material and a lesson assignment. Both beginning BASIC and some intermediate concepts such as nesting, looping, and matrix handing are covered. Easy Tutor is converted from the $\mathrm{C}-64$ and does not cover the additional BASIC graphics command particular to the plus 4. The program is not protected in any way, so you can examine the BASIC code to see how certain techniques are done. Prograin lesson plans are printed in the documentation for reference while you are completing them. Recommended for Beginners.

## MATH GAMES AND WORD PROBLEMS (PD 4001)DISK

Do you need review in word problems and simple math operations? Use this program to polish up your arithmetic skills. The 8 programs contained on the disk provide practice in addition, subtraction, multiplication, and division. Personalized story problems are included to challenge your problem solving abilities. The Programs are intended for one player but can be changed to include partners or small groups. On screen directions make operating the programs simple. (AGES $7 \&$ UP)

## MAZE NANIA (PD4002)DISK

Provides practice in the very important concept of DIRECTION. Learn north/south, east/west, up/down, and right/left in various, challenging ways. Pretend you are a mouse, snake, or even a rocket. Escape from mazes created by you or the computer. Complete on screen directons are provided with each program. (AGES 9 \& UP)

## SUPER SPELL (PD4003)DISK

As you learn to read and write, you must al so learn to spell and identify words. Super Spell helps you do both, giving you the needed practice in word recognition and spelling. Game type format makes using the programs enjoyable as well as educational. Look at words divided into syllables - Form words from sets of scrambled letters - Read words as they flash quickly by or work with them longer if you choose. Includes 7 seperate programs to make learning fun. (AGES 7-14)

ACADEMY SOFTWARE PLUS/4 TITLES

TYPING TUTOR PLUS WORD INVADERS (ACl1001) D or $T$ Typing Tutor starts with the easy 'home keys' and gradually introduces new keys as your skills develop. Word Invaders makes touch typing practice fun. Blast the invading words out of the sky before they destroy your base. Varying levels of difficulty match the letters you ve learned with the Tutor.

IFR FLIGHT SIMULATOR (AC11002) D or T
This program provides a very challenging, realistic simulation of flying under Instrument Flight Rules (IFR) in a single engine light plane. Take off, navigate over difficult terrain and fly an Instrument Landing System (ILS) approach to a landing. The on screen display includes artificial horizon, turn and bank indicator, vertical speed inaicator, airspeed indicator, altimeter, fuel gauge, compass, tachomerer, and so forth. Highly recommended by Midnight Software Gazette.

## COMMODORE PLUS/4 SOFTWARE TITLES

Productivity Software

BUS INESS MANAGEMENT AND STATISTICS (T232008)DISK Help increase your management skills while forecasting upcoming trends. Evaluate past performance and probabilities of occurrance with 9 statistical anà forecasting functions. Use 21 calculation functions for your business management needs such as: lease/purchase analysis, breakeven analysis, and much more.

FINANCIAL ADVISOR (T232001)CART
Help develop and improve your investment portfolio. Enter in your particular questions about loans or investments and receive quick, accurate answers. Store calculation results on up to 100 "memories'. In addition, each financial strategy is divided into several financial calculations. This allows you to learn about every facet of the loan or investment in which you are interested.

LOANS \& INVESTMENTS (T2 32007) DISK
Reduce the risks associated with borrowing or investing money. This comprehensive program contains 12 loan functions, 16 basic investment functions, and 16 advanced investment functions. Loan functions include amortization and mortgage comparisons. Use the basic investment functions to calculate current value of stocks, bonds, and annuities. Additional advanced investment functions include weighted cost of capital, and accrued interest on bonds.

MONEY DECISIONS: INVESTMENTS (T112006)TAPE
Now you can put your money to work for you, by making the right investment decisions. This completely menu driven program contains nine different concepts for all your investment needs. Just enter your data by responding to easy-to-read prompts. After changes, calculations can be run again. Results can then be compared to make your investment decisions.

STARTER PRODUCTIVITY SOFTWARE (T1 12007)TAPE
Attention beginners! Here's a complete software kit designed to help you learn productivity uses of your Plus/4 computer. In this application package: StarterCalc - a spreedsheet, StarterScript - a text editor, Mortgage Calc calculates each payment showing equity and interest, Starfile - Create a custom database, and Depreciation Calc - Computes a depreciation schedule analysis.

## Business Software

GENERAL LEDGER (T262006)DISK
A convenient financial system that developes key reports including Income Statements, Balance Sheets, and $P$ \& $L$ Statements. Automatically interfaces with other commodore accounting systems, to generate automatic posting of $G / L$ transactions. Optional data disks are available to customize your general ledger programs for your particular business. Capacity of program includes 300 accounts.

ACCOUNTS PAYABLE (T262008)DISK
A system that keeps track of vendor purchases and unpaid invoices. Features include maintaining vendor master file, automatic aging of open invoices, and open item aging report by 30,60 , and 90 day categories. Interfaces with the $G / L$ System for automatic posting. Capacity of program includes 100 vendors per disk, 375 open and closed invoices per disk, 40 transactions per batch, and 13 invoices per check.


#### Abstract

INVENTORY MANAGEMENT (T262009)DISK A comprehensive system that maintains perpetual inventory records for 1,800 items per disk. Provides automatic stock ordering, processes stock receipt, issues orders and adjustments with full audit trail, and produces a series of management reports. Reports include: Stock Status, Recommended Re-Order Report, Shortage Report, and Inventory Summary.


PAYROLL (T262010)DISK
A system that maintains an employee master file, generates reports for control and tax purposes, and calculates and prints computerized payroll checks with full deduction detail. Reports include: Individual Payroll Journal, W2 Form and 941 report, Summary Payroll Journal, and Payroll Checks. Their can be a maximum of 75 employees per disk, and 9 deductions per employee.

## ACCOUNTS RECEIVABLE DISK

Information from Cormodore not received in time for this publication. We do have the actual package on order for delivery Setptember 4. If you have interest, please call, 714-832-6719, for description of package. Pricing is the same as other accounting modules.

Save time and money setting up a business in YOUR particular industry. The program packages listed below provide a standard Chart of Accounts based on how your competitors successfully control and measure their companies. You can change the accounts on the disk with your Commodore $G / L$ system by adding and deleting specific G/L accounts for YOUR specific company. Each disk has a file capacity of 300 accounts using the $G / L$ on the Plus/4 and 150 accounts on the C-64.

CONSTRUCTION INDUSTRY (T262011)DISK<br>Sample of accounts are: Construction in progress, Leasehold Improvements, Electrical Fixtures, Carpentry (Rough materials, etc.)

MAINTENANCE AND SERVICE (T262017)DISK
Sample of accounts are: Merchandise Inventory, Receivables - Unbilled, Contract Sales, Subcontractors, and Equipment Rental.

MANUFACTURING INDUSTRY (T262015)DISK
Sample of accounts are: Work in Progress Inventory, Raw Material, Finished Goods Inventory, Sale of Retired Equipment, and Production Supplies.

PROFESSIONAL SERVICES (T262016)DISK
Sample of accounts are: Office Equipment, Client Retainers, Unbilled Time Charges, Disbursements, and Professional Salaries.

RETAIL INDUSTRY (T262013)DISK
Sample of accounts are: Receivable by Store, Merchandise Inventory, Sales Returns and Discounts, Leasehold Improvements, and Advertising/Promotion

WHOLESALE INDUSTRY (T262014) DISK
Sample of accounts are: Merchandise cost of Sales, Dealer Sales, Freight Charges, Sales Returns and Allowances, and Warehouse Expenses.

PERSONAL FINANCE (T262012)DISK
Set up your accounting system with special accounts for your personal finances. An enclosed data disk provides a standard Chart of Accounts. You can change the accounts on the disk with your Commodore General Ledger System by adding or deleting specific $G / L$ accounts. Sample of accounts are: Household Improvements and Repairs, Life Insurnce, Checking Account- Cash, Investments, Vacations.

## Educational Software

EASY MATCH/EASY COUNT (T113007)DISK
Teach your child how to recognize and match shapes and letters, and practice counting. This package contains four reading and four math lessons. Some of the program features include: Child tested menus for easy access to lessons, and an easy-to-follow parent/teacher guide.(AGES 4-6)

LETTER MATCH/MORE OR LESS (T113009)DISK
Teach your child how to match upper and lower case letters and pairs, and to identify which illustration on the screen contains the higher or lower number. This package contains four reading and four math lessons. Some of the programs features include: Child tested menus for easy access to lessons, and an easy-to-follow parent/teacher guide. (AGES 4-6)

WHAT 'S NEXT LETTERS/NUMBERS (T113008)DISK Devel op your child's skills of putting letters and numbers in their proper sequence. This package contains four reading and four math lessons. Some of the programs features include: Child tested menus for easy access to lesson, and an easy-to-follow parent/teacher guide.(AGES 4-6)

## LETTER SEQUENCES/LONG \& SHORT (T113010)DISK Teach your child to identify and remember three letter sequences and learn to identify which objects are longest and which are shortest. This package contains four reading and four math lessons. Some of the program.features include: Child tested menus for easy access to lessons, and an easy-to-follow parent/teacher guide. (AGES 4-6)

SHAPES \& PATTERNS/GROUP IT (T113011)DISK
Develop your child's skills in recognizing various shapes and patterns and tell the differences between each. Learn the basics of addition and subtraction. This package contains four reading and math lessons. The program features also include: Child tested menus for easy access to lessons, and an easy-to-follow parent/teacher guide. (AGES 4-6)

## LOGO (T263001)DISK

Logo is a powerful computer language. It helps people of all ages develop clear thinking skills. It also teaches the fundamentals of programming that are used in any structured language. A pre-schooler can draw shapes using one letter commands and an older child or adult can use Logo graphics to draw simple shapes and complex pictures.

## READING PROFESSOR (T263010)DISK

Ten twenty-minute lessons give information and practice which increases reading speed and comprehension. There is a choice of reading passages during exercises from three libraries high school, college and adult, and professional - each with 32 interesting passages from a variety of sources. In addition, an individual profile report can automatically keep track of your progress.

TYPING PROFFESSOR (TC301)DISK
Learn typing skills or improve your present typing speed. Nineteen exercises sharpen your typing ability. The exercises contain a score chart which informs you of your accomplishments.

## Recreational Software

ATOMIC MISSION (T116005)CART
The count down has begun...a saboteur is loose in the nuclear reactor. Travel through the corridors and encounter obstacle as you look for clues to his whereabouts before time runs out.

