Social Awareness Center...

   Although the six of us here have varied
backgrounds and interests, we really enjoy
each other's company (most of the time...).
As a consequence, our friends have been
somewhat pooled together, which makes for
an olympic-sized group! When one of the
group gets an idea for a dinner party, happy
hour (we are a happy bunch), etc., it just
naturally happens that the shop becomes the
communications hub. This has led to a new
title for me - 'Editor and Social Director'...

```
**************************************************************************
*                                                                        *
*    Filename      English Translation        PMODE PCLEAR   Locations   *
*                                                           CTR-80  CCR-81 *
*    XMASCOV      Xmas Cover                     3     4    10/154  11/168 *
     MRMUNCH      Mr. Munch                      4    (4)   30/169  33/184 *
     ROBOTRUN     Robot Run                      4    (4)   54/188  59/205 *
*    KALIEDOS     Kaliedoscope (sic)            (2)   (4)   74/202  81/220 *
*    CURVEINS     Curve Fit Instructions         2     2    88/214  96/233 *
*    CURVEFIT     Curve Fit                     (2)    2   109/231 119/252 *
     HISCORE      High Score (disk only)        (2)   (4)  130/247 142/269 *
     BOXSHOOT     Box Shoot (CLOADM EXEC)       (2)   (4)  143/259 156/282 *
*                                                                        *
*    Locations are for R/S recorders.  If the first copy of a program    *
*    won't load, try the second.  If neither copy loads, return the tape *
*    for disciplining and a prompt replacement.  If you get an OM, FC,    *
*    or SN error while loading or running a program, you probably have    *
*    to enter the PMODE and PCLEAR values for the program directly from   *
*    the keyboard.  (Values in parenthesis are not set in the program).   *
*    * These programs may use high speed.  Be sure that the computer is   *
*    slowed down again before doing I/O to tape or disk (POKE 65494 0).   *
*                                                                        *
**************************************************************************
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   It's beginning to read a lot like Christmas... Watch our logo be transformed into a holiday greeting
In Xmas Cover.

   The Ghost of Christmas past... Mr. Munch is a one-ghost version of a well known video game (can
you guess which one? I knew you could!). Note: If your machine can take the high speed POKE add
:POKE 65495,0 to the end of line 1.

   The high resolution character generator used in Mr. Munch was taken from the June 1982 TRS-80
Microcomputer News and tacked on to the end of the BASIC program. In line 0 of the BASIC program, the
beginning of the machine language character generator is pointed to (A=PEEK(27)*256+PEEK(28)-882) and the
23rd byte of the routine is POKEd (POKE A+22, PEEK(188)) so that it will work on both disk and tape
systems.

   Get on the right track - the one without the robot in Robot Run. Use the arrow keys to jump to one
of the 4 tracks while the robot is (hopefully) on another track.

   A better way to vegetate! Watch the Kaliedoscope (sic)!! You draw a little pattern on the screen
with the arrow keys (which is repeated in the other three quadrants of the screen as you draw). Then
CoCo takes the pattern and goes crazy with it! You can change the pattern's drawing speed by hitting a
letter key (A thru Z - A fastest) or do another pattern by hitting any other key. Note: The <break> key
is disabled in the program. To 'break' out of it, hit <break> twice.

   Crystal ball - Curve Fit takes a group of related data and, by using a mathematical function,
approximates the direction that the next piece of data will take. For instance, if you took the number
of hours Tom actually worked each day last week, you could, with this program, get an idea just how many
hours he would work on Monday of this week (my guess - 0.01). You get to choose from 6 different
approximations (no one curve is the best for every group of data) and you can input up to 50 data
elements. Read Curve Fit Instructions for a full description of the program.

Fastest button in the West - Who is it? If you have a disk system, **High Score** will keep track of the top three scores for all of your games. Hey, Guiness Book...

A little rapid fire... **Box Shoot** is a two-player game requiring joysticks. A box appears in the middle and you try to be the first to hit it. Each time you hit it, the color band at the bottom of the screen grows your direction. First one to control the color band wins! Notes: You can just hold down the red joystick button for rapid fire. The program is in machine language, so to load it type **CLOADM**<enter> and **EXEC**<enter> to run it once it has loaded. To make a copy of **Box Shoot**, type **CSAVEM"BOXSHOOT",6656,8699,6656**<enter> (use **SAVEM** to save it to disk).

Writer's cramp (in brain)...

The little routine I wrote to demonstrate last month's **Graph Text** had a typo in it. Line 30 should have read: 30 CLS: FOR I=0 TO 127: POKE 1280+I,I: NEXT

Say it again, Sammy...

Some **Say & Play** mods were given last month to get the program on disk. Steve Kovach of Ford City, Pennsylvania, added these mods to those so that the voice option would also work: In lines 620, 660, 700, 760, 780, and 800 change POKE&H3D63 to POKE&H5763.

Go to reverse...

In the October 1981 issue there was a talk on using a 'reverse GOTO' whenever the PCLEAR value is changed in a program. This was to keep you from having to type 'RUN' twice. If the program needs fewer than 4 pages PCLEARed, the 'reverse GOTO' should be at the end of the program. And if more than 4 pages are to be PCLEARed, the GOTO should be at the beginning of the program. What is all this dribbling leading to? August 1982's **Chicken** and November 1982's **Diggem** didn't follow the rules. But you can make them right with the following mods:

Chicken	3 CLEAR 4000: GOTO 83	Diggem	Delete line 3000
	83 PCLEAR 2: GOTO 4		0 GOTO 7
			6 GOTO 10
			7 PCLEAR 5 GOTO 6

Who am us?

John Maupin of Denver, Colorado mentioned that typing **EXEC 41175**<enter> will tell you whether you have a 1.0 or 1.1 ROM.

Hard DIR...

From Geo Klement of Grandview, Missouri comes this tidbit he read in **Color Computer News**: To get a hardcopy listing of a disk directory and FREE space, just type **POKE 111,254:DIR:PRINT FREE(0)**<enter>. He actually gave this one-liner a line number saved it to disk, and now accesses it by typing **RUN"D"**<enter>.

Look ma, no text...

POKE 359,57 will disable the return to text screen following a PRINT, but George Ziniewicz of Arizin Inc. (P.O. Box 8825, Scottsdale, AZ 85252) pointed out that it also disables the write to disk. So, you must enable the text screen (POKE 359,126) before output to disk (as long as you do not do a PRINT, you will stay in the graphic mode).

Speaking of George Z...

Arizin Inc. (address above) has a little (?) utility that contains almost everything that a programmer (read: I) could want. Remember wanting a global search? Full screen editor? Screen print delay? Variable list? Etc.? **The Toolkit** ($29.95) has it!

Leaky faucet...

I like the trend I see in Radio Shack's behavior lately. What trend, you say? The release of information trend. Their TRS-80 Microcomputer **News** is full of information (besides R/S product plugs) and they are even referring people to other sources. It seems that they are now able to deal with the fact that their computers are not sitting on an island of R/S software, but that they are floating in a huge sea of outside vendor support (nice metaphor). I still like you guys the best, Tandy.

It once was 3 photocopied pages...

One of the other sources mentioned in December's TRS-80 News is the **Rainbow**. If you have any doubts about the Color Computer's popularity, one look at the Rainbow's color cover. 150 or more pages, and over 100 advertisers will dispell them. Even **80 Micro** (?) is devoting a large share of its Sears-catalogish bulk to little CoCo...

Ron Garrett is busy...

He's the president, publisher, editor, trash-emptier, etc. of the **East Texas Computer Club** (2101 E. Main St., Henderson, TX 75652). A $30 membership fee seems like a bargain when all of the discounts and freebies (on magazines, hardware, software, advertising, etc.) you get are added up. And you get a large (32 pages for NOV/DEC) newsletter!

Make it quick...

Many programs written would be better if they ran faster, especially real-time BASIC games. As has been pointed out in the past, there is a Vitamin E poke (POKE 65495,0) that can be accepted by many (but not all) CoCos which speeds up the computer by 25%. That is fine, but we take it out of programs submitted to us (unless it is an option) because it plays havoc with so many CoCos (especially disk systems). However, there are other ways to speed up BASIC programs. How about declaring variables?

Every time CoCo encounters a new variable in a BASIC program, it makes a space for it at the END of the variable list. Then each time it encounters the variable in the program again, it searches linearly (starting from the top) down the list until it finds the space originally created for it. In a large program with lots of variables, it can take quite a while if an often-used variable is at the end of the list.

So you should declare variables (through a psuedo DIM statement) with the most used variable declared first. Step right over here and I'll show you what I mean. The following program shows what percentage of the time a random number, from 1 to the loop limit, equals the loop counter. As you can see, the variables A thru V are declared first (and they are used once each). The loop counter, Z, is used twice EACH TIME THROUGH THE LOOP (2000 times in our example). The loop limit, Y, is used once each time through the loop. W is used twice and X is used once each time the IF is true:

```
20 A=0:B=0:C=0:D=0:E=0:F=0:G=0:H=0:I=0:J=0:K=0:L=0:
   M=0:N=0:O=0:P=0:Q=0:R=0:S=0:T=0:U=0:V=0
30 X=1:Y=1000:W=0
40 FOR Z=X TO Y
50 IF RND(Y)=Z THEN W=W+X
60 NEXT
70 SOUND X,X: PRINT W/Y*100
```

This program took 17 seconds to run. However, let's add line 10:

```
10 DIM Z,Y,W,X      (Yes, it's a legal statement)
```

Now we have put the variables most accessed at the top of the variable list by forcing the BASIC interpreter to find room for them first. Rerunning the program takes 15 1/2 seconds, a time savings of almost 10%! The tricky part (in using this technique in your own programs) is deciding which variables from your program are to be declared first (ie: which program sections need speeding up and which variables in those sections are used the most).

We don't want to be normal but...

We all would like to wish you all a Happy Holiday and a Happy New Year.

Oh, no! It's almost '83!!!

Dave
Roli
Donna
Rose
Tom
Grady