

Central Ohio Commodore Users Group's

COCUGazette

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FREE!

A family that computes together, stays together

by Gaele Moranec

Last fall my husband and I were feeling some pressure from the North Pole to join the rest of society and get a video game system for our family. It wasn't something I really wanted to do, because I personally dislike most video games. The only good I see in them is they're a good way to get my son out of my hair for a while on a rainy day.

While we were debating the expense of a Nintendo system, I happened to see a Commodore 64 in a catalog, and it seemed to jump out of the pages at me. We decided on the computer instead of a game system. A Commodore 64 was the obvious choice for us because of its price and the fact my parents have one, with all the trimmings. I wanted a printer, but since they had one, I could always borrow theirs until Uncle Sam sent us our tax refund.

Our C-64 was on layaway for what seemed like months, and when we finally had it home, we couldn't play with it for two weeks -- it was, after all, a family Christmas gift. My husband and I were like two little kids anticipating Christmas morning when we could play with our new toy. My poor son didn't get to play any games until the day after Christmas when his daddy was at work and mommy had to find her way through the wrapping paper to clean the kitchen.

We've had our computer for eight months now. Is the honeymoon over? I don't think so. It's not like it's on for 12 hours a day anymore, but then, we've become more efficient at using it.

Our Commodore has exceeded all my expectations for it. Originally I thought it would be used for my son to play

games on, I would use it to write the Great American Novel and my husband could do whatever he wanted to do with it. Well, I've written a nasty letter to the editor of my local newspaper, a very short story for my son and lots and lots of letters. No novel yet.

Not that my C-64 couldn't handle it, I've just found so many other uses for it. Anyway, I like to write, I love my Commodore and the newsletter said they needed articles. A

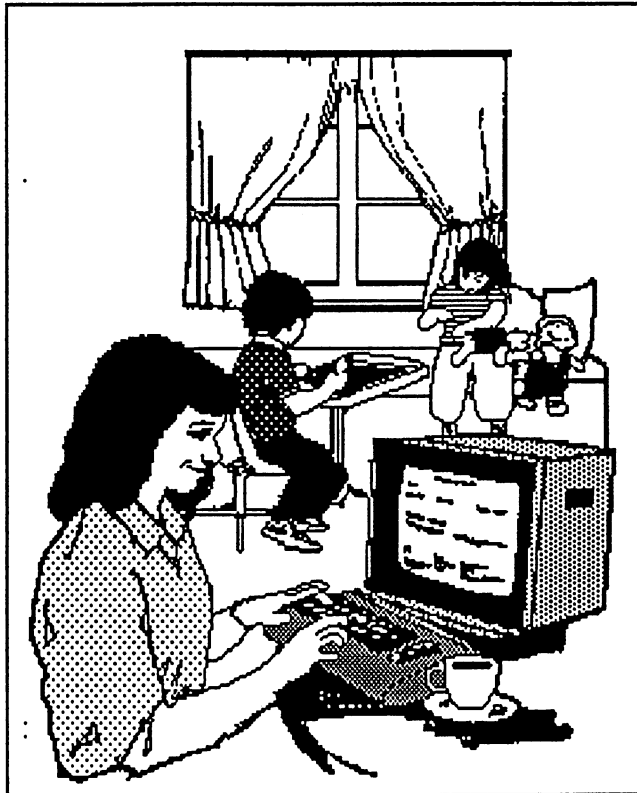
match made in heaven.

I'd like to write a series of articles about the different uses we've found for our computer. My husband and I have a lot of different hobbies, and to our surprise we've found that our computer has enhanced them. For example, I do a lot of needlework and the first time I used Print Shop, I knew it had potential for counted cross stitch projects. My husband played with the graphics editor and came up with a graphic that looks like our three kids. I've used it on my address labels and letterhead, and printed them out as a large graphic in the sign mode as it is a perfect counted cross stitch pattern.

In the coming months I'll write about other creative possibilities with the Commodore, involving gifts, crafts, recipes, keeping records with word processors,

using Print Shop and GEOS together and creative ways to let your kids use the computer for more than just game playing. Hopefully my article will help you find new uses for your C-64. In fact, hardly a week goes by that we don't find a new use for it ourselves.

(Gaylyne Moranec originally wrote this article for CCC=Data, the newsletter for the Saginaw Area Commodore Users Group.)



For the owners of Commodore 64, 128, Amiga and IBM Clone computers

It's still back to BASIC for Commodore 64

by David Ross

Part 2 - Using Commodore's Somewhat Random Numbers

In Part 1, I demonstrated how to use the RND() function to produce RaNDom integers in a given range and starting point. To review:

In the line

```
200 PRINT INT ( RND (1) * 10 ) +1
```

RND(1) produces a decimal fraction from 0 to 1, exclusive; the product of that number and 10 is a mixed number having a whole number from 0 to 9, inclusive, and a decimal fraction; the function INT() removes the numbers to the right of the decimal point and returns an INTeGer less than or equal to the expression within the parenthesis; finally, the addition of 1 shifts the range of numbers to a starting point of 1.

At the end of the article, I gave as an exercise the rewriting of line 200 to produce random numbers from 1 to 100, 10 to 20, and -1 to +1, all inclusive. Here are the solutions:

1) Random numbers from 1 to 100, inclusive: The range is the high number (H) less low number (L) plus 1: $H-L+1=100-1+1=100$. The starting number of the range is the low number: $L=1$. The solution is

```
210 PRINT INT ( RND (1) * 100 ) +1
```

A A
Range Start

2) Random numbers from 20 to 30, inclusive. The range is $H-L+1=30-20+1=11$. The starting number is $L=20$. And the solution is

```
220 PRINT INT ( RND (1) * 11 ) +20
```

3) Random numbers from -1 to +1, inclusive. The range is $H-L+1=+1-(-1)+1=+1+1+1=3$ (a negative times a negative is a positive). The starting number is $L=+(-1)=-1$ (a positive times a negative is a

negative). Therefore, the solution is

```
230 PRINT INT ( RND (1) * 3 ) -1
```

Line 50 below uses the expressions for the range, $(H-L+1)$, and the starting point, (L) , to "automate" a solution to this type of problem.

```
50 PRINT INT ( RND (1) * (H-L+1) ) +L
```

Using line 50, the following program generates 40 random numbers and allows the demonstration of several more BASIC keywords.

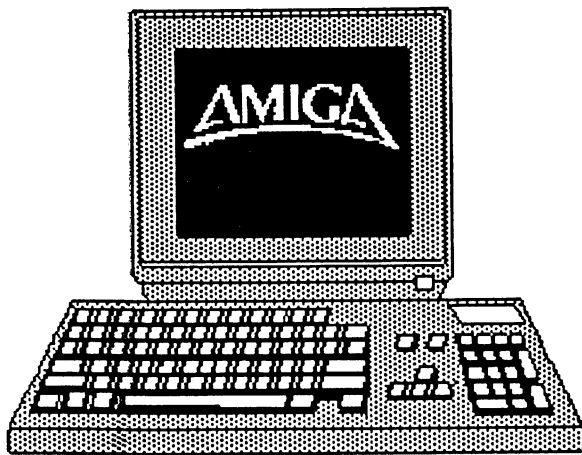
```
10 REM *** RANDOM.DEMO.2 ***
20 ::::::::::::::::::::::::::::
30 INPUT "RANGE: LOW, HIGH"; L,H
40 FOR N = 1 TO 40
50 PRINT INT (RND(1) * (H-L+1) ) +L,
60 NEXT N
70 END
```

Line 10: The REM keyword allows for documentation -- REMarks -- to be included in the program. BASIC ignores everything else on this line after this keyword.

Line 20: Colons are mainly used to separate statements in a BASIC line. However, here a line of them is used to mark off the title from the main program.

Line 30: The keyword INPUT allows data to be entered into memory from the keyboard. The string within the quote marks is a prompt, informing the program user about the expected entry. The prompt requires a semi-colon after it. If the prompt is not used, then omit the semi-colon. Next, BASIC prints a question mark on the screen, waits for the values of the variables to be entered, and the pressing of the RETURN key. In this case, BASIC expects the user to enter two values separated by a comma. The key press assigns these values to the

See BASIC, page 4.



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Kids are never too young to use computers at home

by Dwight Campbell

There are few who would disagree that computers are interesting devices, especially to younger people. In the Campbell Computer Room our 3-year-old has been "helping" us with the computers for more than a year now. She started out on the "Muppet Learning Keys" from Koala but has now graduated to keyboard and joystick.

She has not broken anything beyond a quick fix-it. In fact, Mom and Dad have caused more havoc with the computer than she. To help reinforce good habits around the computers, we have some "understandings." These allow her to use the computers with the least amount of supervision and encourage creativity. The following are some suggestions as to computer use by younger persons on the family micro.

*The first step in sharing the computer with kids, is to back-up all important programs and data, then store in a safe place. Keep programs, diskettes, cartridges, manuals and so on organized.

*Provide a safe environment. This includes keeping wires, plugs, cables and other things out of the way.

*Provide a computer orientation session followed by frequent refresher courses. This session should include several precautions on the proper power up and power down of the system, insertion of cartridges, joysticks, mouse, diskettes and so on. Children learn vast amount of information, but they have to be taught the correct methods or "etiquette." Some people have compared the computer to a house pet: treat it right and it will respond. Make the computer accessible, but teach standards and respect for the tool.

*Devise a set of rules of operation and have frequent drills on specific rules especially electrical safety. Computers are, after all, electrical devices.

*To encourage "ownership" or responsibility, provide specific tasks for which the child is responsible. For example, keeping the video screen clean, or reporting anything which might be a potential hazard. Provide them with their own diskette, help them store their favorite programs and games. Provide a small case to store their own print-outs, instructions and other related materials. In this way, the computer will become partly "theirs." As an owner they will try harder to care for the computer and protect it.

A few more tactics: try hard not to get too upset when it looks like they have done something on the computer. Usually things are not as bad as they seem at first. Usually things are not as bad as they seem at first.

Don't push the child to use the computer. Just exposure to the world of the computer is good for the child. Just switching buttons on and off, or typing letters or shapes on the screen has provided benefit for our little ones. If the child's computer time is associated with chores, with work or anxiety and pressure, then they will not like the computer.

Computers fascinate kids and this fascination will motivate the child to learn on their own.

(This article was initially published in MEMCO, the newsletter of Memphis East Commodore Organization. It was recently published in The Starboard Byte, the newsletter of the Dale City Computer Users Group of Dale City, Va.)

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COCUGazette

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COCUG meets on the third Saturday of each month at 9:30 a.m. on the campus of Columbus State Community College in Room 139 of Union Hall. COCUG also maintains a computer Bulletin Board Service that is available to the public 24-hours per day, seven days a week at (614) 274-6502.

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Always remember to make backups, backups and more backups

Don't you wish you could remember things like a computer would? Well, I wish I had a set of RAM chips built into my brain, so I could always remember the cardinal rule of computing -- make backups of your project onto a floppy disk when you are done working with it, particularly if you are using a RAM disk for storage.

What happened was that I had a rare power spike hit my computer one stormy evening toward the end of June when I was working on this newsletter. My surge guard did its job like it was supposed to in protecting my computer equipment, but a slight increase in voltage hit my RAMLink and managed to destroy the partition where I do most of my GEOS related computing work. The problem was that I was unaware of what happened until I finished working on an application file to find that I couldn't return to the gateWay menu properly. All I could get on the screen was a jumble of incoherent images telling me to shut down the computer and reboot.

Rebooting went fine and when I moved to the RAM partition that I was working in I would get a menu and nothing else. Thinking that I was about to have a major crash, I tried to copy the files to a floppy disk. The only response was that of my 1581 disk drives whirring madly, doing absolutely nothing. The situation deteriorated even more that one of the application files' onscreen instructions became the directory heading and 1-meg of files dwindled down to 75-kilobytes.

Terrific, I fumed. I had lost everything on that RAM disk and couldn't access them every again. So, all I could do next was dig out the RAM-TOOLS program that came with the RAMLink and recreate my RAM disks partitions all over again.

Not all was lost, however, as I did have the stories and the main newsletter file on another disk that I was working on and had managed to salvage this issue from obscurity. This time I was a little more vigilant



Editor's notes by Harold Stevens, Jr.

in saving my files after I was done.

You know if would be my luck that the brain-installed RAM chips that are supposed to remind me to make backups would probably fail after drinking a bottle of caffinated soda pop or tea. In that case, I had better put the reminder down in front of me in black and white, like this article.

Harold Stevens, Jr., is the editor of the COCUGazette and an editor for the Columbus Messenger Newspapers.

BASIC

Continued from page 2.

variables, and the next line runs. If the user enters too few values, BASIC prints two question marks on the screen, and the user will enter the missing number or numbers and press return. But if the user enters too many values, then BASIC will print "EXTRA IGNORED" on the screen and the program will continue. If the user enters a string when BASIC expects a numeric value, then BASIC will print "REDO FROM START" and a new question mark on the screen.

Lines 40 and 60: The keywords FOR-TO and NEXT form a loop in which Line 50 runs 40 times. Each time the loop is executed, the variable N becomes the next whole number, 1 through 40. When line 60 runs, the NEXT keyword determines whether the loop will continue. If the next value of N is not greater than 40, the program loops back to line 40, and line 50 runs again. If, on the other hand, the the value of N is greater than 40, the program will leave the loop by going to line 70.

Line 50: This line has been described above, except for the effect of the comma at the end of the line. After a random number is sent to the screen, the comma causes tabbing ten spaces to the right of the first digit in the last number, and the next number is printed. This continues until there are no more than four columns of numbers. Then, the same format repeats on the next line.

Line 60: See line 40 above.

Line 70: The END keyword stops the execution of the program. It is optional here since BASIC will also stop when the program runs out of lines.

In the next part of this series, we will learn more about how the random function works, especially how the number within the function's parenthesis affects the output. As an exercise, you may explore the the result of putting 1, 2, 0, -1, and -2 within the parenthesis. Enter and save RANDOM.DEMO.2, but change the 40 in line 30 to 10. That will be all the numbers needed. With one of the above numbers in the parentheses, run the program, record the 10 somewhat random numbers, turn off the computer, turn it back on, reload and rerun the program. Use this procedure at least 3 times for each number. RND() is not as straight forward as it seemed before this exercise.

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Chill out those hot 1541s by installing portable fans

by Marshall F. Schultz

Integrated circuit chips are quite sensitive to heat. They even tend to generate enough heat to destroy themselves if that heat is not carried away somehow. The outer case for the 1541 was designed to allow air to flow through it in order to carry off this heat. Examination will show a number of slots in the case. These slots were thought to be sufficient to carry off the excess heat generated by the chips inside under normal use.

However, "normal" use has been extended from a few minutes a day to several hours of continuous usage each and every day. These slots cannot carry away the amount of heat generated by such use so additional cooling is required. There are several commercially made coolers on the market and some are better than others.

Some commercial drive coolers are nothing but a fan to blow air down into the disk drive or draw the heated air out of it. This is not different from placing a small muffin fan on top of the disk drive, which I have seen a number of Commodore owners do. This does keep the drive cool and it is better than no cooling at all, but it also carries dust and dirt into the drive where it can scratch the surface of the disks. This dust can seriously damage a magnetic disk and, since it is abrasive, it tends to increase the wear and tear on the Read/Write head and its operating mechanism.

The drive cooler described here blows filtered air down into the disk drive so that no dust is carried into the cabinet. However, any dust already inside will be stirred up, so it is recommended that you place the cooler on the disk drive and run the fan for at least an hour before turning on the disk drive for the first time. This will allow any dislodged dust to be blown out of the cabinet before you expose a disk to it. After this, it can be turned on at the same time as the disk drive.

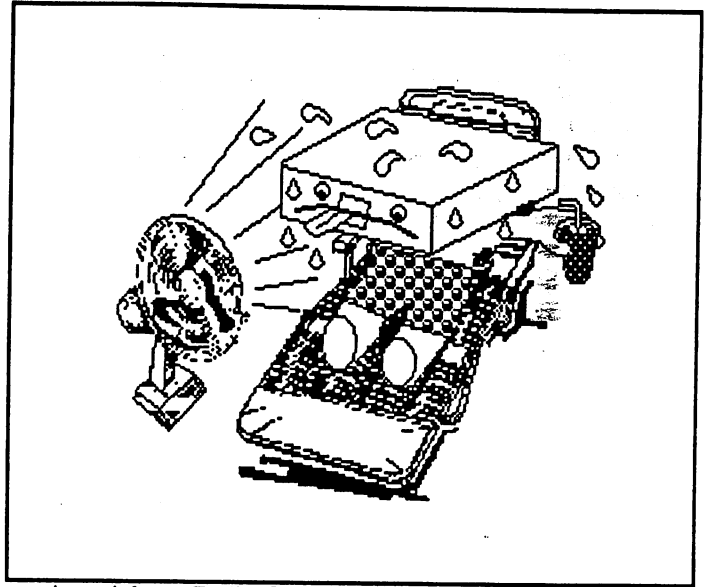
To make the cooler, first construct the plenum chamber. This is simply an inverted box about half-inch deep on the inside, 7.5 inches long and four inches wide. The purpose of the plenum chamber is to distribute the moving air over the entire slotted area. There is a hole centered in the top of the box. The box may be made out of any rigid material. I recommend quarter-inch plywood but that requires a few power tools. If you use one-eighth inch balsa wood, it can be cut with an E-Xacto knife.

(Editor's note: You can also use thick sheet styrene plastic that model builders use to create the box. This material can also be cut with an E-Xacto knife and can be glued together with ordinary model styrene plastic cement. You can buy the plastic in strips of half-inch wide for the side and the top piece in a sheet of about 4 x 6 inches.)

Glue it together with white glue (Elmer's) or model airplane cement (balsa cement, not plastic cement). When the glue dries, place a sheet of sandpaper on a table, grit side up and place the plenum chamber on the sandpaper, open side down. Work the plenum chamber back and forth across the sandpaper so that the sides are sanded down even and flat all around. This will allow the box to seal against the top of the drive cabinet.

(Editor's note: You will not have to sand the edges of the plenum chamber if you build it out of plastic, unless the sides are uneven.)

Obtain a small three or four inch muffin fan. These may be



purchased from Radio Shack or from other electronic supply houses. The fan should operate from 115-volt AC house current, although others will work just as well as long as the proper power is supplied.

Examine the fan and you should find a small arrow on the side marked "air flow." This arrow must point toward the plenum chamber when the fan is mounted. Measure the diameter of the air passageway through the fan and cut a hole the same size in the center of the top of the plenum chamber.

The third item required is an air filter. This filter must allow free passage of air while still blocking dust. Air conditioner filters and the foam plastic filters used in power lawn mowers are not satisfactory. One allows too much dust to get through and the other presents too much restriction to the flow of air.

One filter that I have to be readily available is a replacement filter for Sears, Tecumseh and Power Products four to six horsepower gasoline engines used on lawn mowers and garden tractors. They are the Series V-40, V-50 and V-60 with parts numbers 317000 and 30727. I have found these filters at Sears and at True Value Hardware stores. They are probably available at other stores as well.

To assemble the unit, place the open side of the plenum chamber down. Then fasten the muffin fan to the top of the chamber so that the air passageway is lined up with the center hole. Remember that the "air flow" arrow must point down. The fan may be fastened with screw or bolts. Now, set the filter on top of the fan with the open side down. This may be held in place by placing a weight on top of the filter or you may choose to bolt it down.

Now, place the whole assembly over the air vent slots at the rear top of the disk drive cabinet. Plug in the fan and run it for a half hour or so. The system is now ready for use.

It also helps to place the over-sized rubber feet on the disk drive to raise it up slightly. This will allow better air circulation under the cabinet.

(Marshall F. Schultz is a member of the Commodore Houston User Group of Houston, Texas. This article appeared in the Sept. 1990 edition of The Final Horizon, a newsletter for C-128 users.)

geoTerm 128 allows use of GEOS while modeming

by Rick Rosinski

We will examine geoTerm 128 2.1, a telecommunications program on *RUN* magazine's GEOS Power Pak, will let you communicate with various bulletin board services, both local ones and national boards like PeopleLink and CompuServe.

Those of you familiar with the first RUN GEOS Power Pak know that the geoTerm included on that disk did not run under the 128 version of GEOS. The new geoTerm does run under GEOS 128 and is fully compatible with the newer GEOS 128 2.0 as well.

geoTerm 128 is a fairly compact program as it only takes up about 28K of disk space. This leaves you ample room for other GEOS programs on a work disk. Upon booting up geoTerm 128, you will find familiar looking menus in the upper left hand corner of the screen. These menus are labeled as follows - GEOS, Disk, Edit, Load, Mode, Proto, Xfer, Buffer, and Width.

The GEOS menu includes options to quit the program, switch between the 40 and 80 column screens, view the program credits, and get a quick command summary. The 40/80 column switch is needed because the menu options are fairly hard to read in 80 columns, therefore I find it preferable to boot the program in 40 columns, until I am online, and then switch to 80 columns. The help option includes a summary of some quick commands to use when you are more accustomed to the program.

The disk menu includes options to view a disk directory, change disk drives, convert files, scratch files, and rename files. Most of these options are standard, but the convert feature is unique to geoTerm. This feature is extremely useful, in that it will let you convert GEOS files to and from regular sequential files for uploading and downloading. No longer will it be required to run a Convert program before booting up your terminal program.

The edit menu lets you define or change function key setting, the system configuration, and change the BRF (baud rate factor). With geoTerm you can define up to 8 function key settings in a group, and you can store up to 10 groups separately. These settings can be useful for sending frequent commands to your modem, for example. The configuration option lets you change start-up values for the baud rates (300 and 1200), toggle between full and half duplex, toggle between 40 and 80 columns, and change between Xmodem and Punter as a default protocol.

The load menu contains the phone book (up to 30 entries can be included), lets you change between function key groups, or lets you change back to system defaults. This last option performs something similar to a system reboot.

The mode menu lets you toggle between 300 and 1200 baud, full and half duplex, and auto hang up mode. These options do not change your start-up values. The auto hand up mode is useful for telling the program to automatically disconnect after uploading or downloading a program.

The proto menu includes the protocols supported in geoTerm. These are Xmodem, Xmodem (CRC), Xmodem 1K

(also known as Ymodem), Punter, and a whole disk Nibbler. The inclusion of Ymodem support is valuable since most IBM-based systems include this protocol as an option, and it is faster than traditional Xmodem because it sends data in bigger blocks.

The xfer menu includes the options for uploading and downloading files, while the Buffer menu includes options to open, close, clear, view, transfer, and convert the buffer between ASCII and PETASCII text. The buffer is important for saving information viewed on the screen while online. The maximum size of the buffer is 30,720 bytes, which is smaller than other 128 mode terminal programs.

Finally, the width option lets you change the terminal mode screen between 40, 53 and 80 columns. You can get an 80 column screen while in 40 column mode, but the text is not as readable.

geoTerm stacks up well against other 128 mode terminal programs, and points definitely in its favor include it's ability to run under GEOS, the built-in Convert option, mouse support (included under GEOS), the inclusion of the Ymodem protocol, and the ability to get 80 columns in 40 column mode. However the program does have some disadvantages which include the lack of support for 2400 baud modems, no macro support (although the function key definitions help some here), a smaller than normal buffer, 21 row screens (instead of the normal 23-24 rows), no buffer editing, no VT-100 or VT-52 terminal emulation, the lack of support for other than Commodore 1670 or other Hayes compatible modems.

There is no mention in the documentation on how to configure other modems for use with geoTerm. I used a Computer Direct 2400 baud, Hayes-compatible modem to test this program and poor menu resolution in 80 column mode. The documentation for geoTerm is a six page geoWrite 2.1 file included on the back side of the Power Pak II disk, which can be rather limited for beginning telecommunicators. My main comparison against geoTerm is BobsTerm Pro 128.

I have also used a variety of public domain and shareware programs, such as MultiTerm 128 and Comm Term 128. I find myself using geoTerm to transmit my GEOS files because of the built-in Convert option. But I still go back to BobsTerm Pro when I need to send or receive a lot of files because of BobsTerm Pro's support of 2400 baud. If you don't have a 2400 baud modem or don't plan on getting one, then this feature is not important.

An important feature of geoTerm is it's value. Since it is included on the Power Pak II disk, you get many other programs besides it for only \$24.95. This is less than half the price of BobsTerm Pro. Overall I would rate geoTerm 128 a "B." I don't find myself using it as my primary terminal program, but including some of the features outlined above would increase it's rating.

Windows? Amigas had them long before PCs did

In our society everyone is first a number from birth to death, then an individual -- someone's son or daughter, a boyfriend or girlfriend, a husband or wife and so on.

Since computers keep track of all of us numbers, it is no wonder we are very much influenced by them where ever we are in life. They have made our life easier, convenient, magical and many times frustrating. Some of us work on them, with them, sell them, use them, play with them, repair them, or make them. Each of these association with computers is fascinating as many of us carry on a love affair with our own computers, while the rest aspire one day to do so.

Computers can probably be divided into three broad categories:

Home computers. These are mainly used to keep track of household activities such as friends, family members, budgets, school papers, some education and a lot of entertainment. With a great little machine like the Commodore 64 and the right software, you can even publish newsletters like this one. C-64s currently cost around \$300 with decent software and a printer.

Business computers. These are mainly used by corporations, large and small, to maintain records of all aspects of their business activities. They can handle transactions from a few to millions simultaneously, run airlines and governments, create or avoid wars between nations, design your clothes and cosmetics, monitor your heart during surgery and much more.

These computers are constantly updated so that what you paid for one last year will probably be worth half today, leaving you with the small satisfaction of having owned one "the most current" machine for about six months.

Amiga computers. These are great for home uses, business applications small and medium, great for graphics, sound, music, computer animation and multimedia applications. The Amiga is a product of Commodore Business Machines that has been around for seven years and have not yet been cloned.

The Amiga line of computers run on the Motorola 68000 series processors and have an open architecture. An Amiga computer system can cost as little as \$400 and can expand with various peripherals and software up to \$25,000 or more for heavy duty graphics, animations and multimedia work station for television production work. The top of the line models are mainly used for corporate advertising, or for education or promotional work for nonprofit organizations.

Entertainment is another strong feature of the Amiga. With its four voice stereo capabilities and 4,096 on screen displayable colors, the audio-visual impact of Amiga games is excellent. Back in 1987-88, when my son was first introduced to the Amiga, he would stay up until 3 a.m. playing "King of Chicago," "Ports of Call," "Flight Simulator," or "Deja Vu."

Amiga boasts music software for composition and control of keyboards through MIDI devices. Several music studios use the Amiga for its music, graphics, special effects and

Amiga corner

by Randhir Jesrani

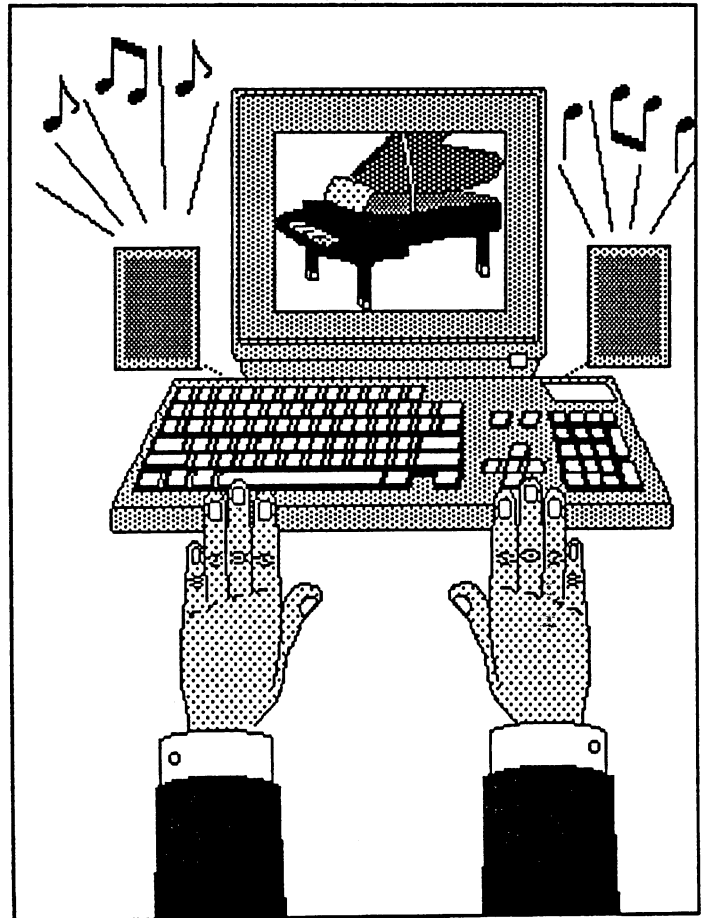
animation abilities. Even as far back as 1987, Top of the Pops and The Chart Show studios in England used more than two dozen Amigas.

Can the IBM compatible computers do what the Amigas can do? Sure, to some extent if you spend five to 10 times the money. By the time you are done doing that you've lost the fun of computing and you're not sure what all of it would be worth after a few months.

By the way, since 1985, when Amigas first came out, they have worked with the Windows-like point and click environments of graphic user interfaces while using only 512 kilobytes of memory and even today it continues to be the only true multi-tasking computer.

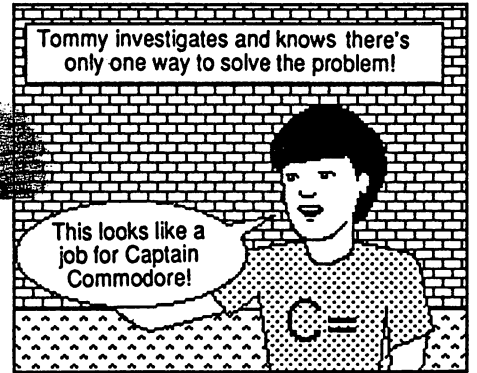
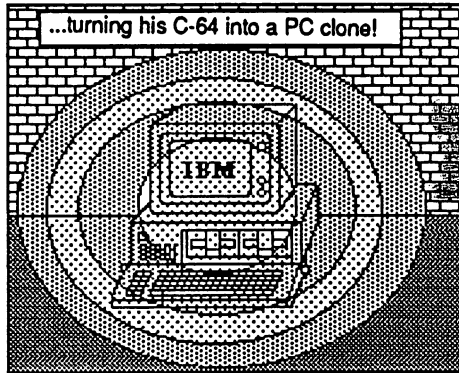
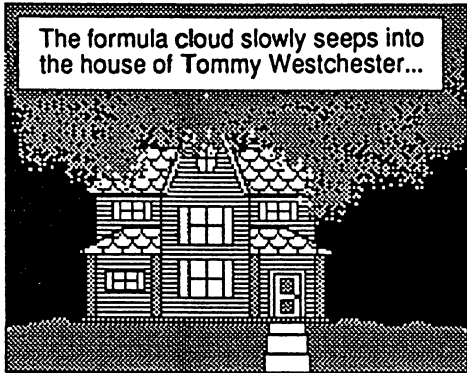
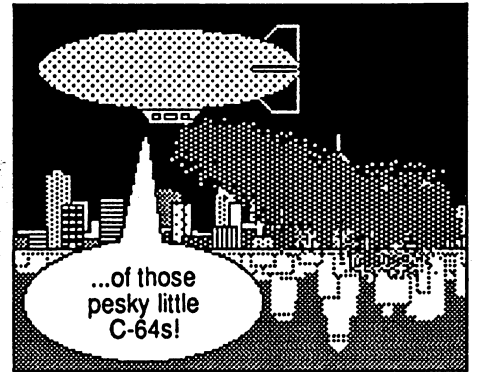
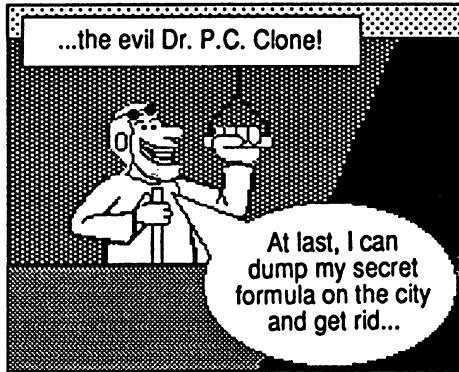
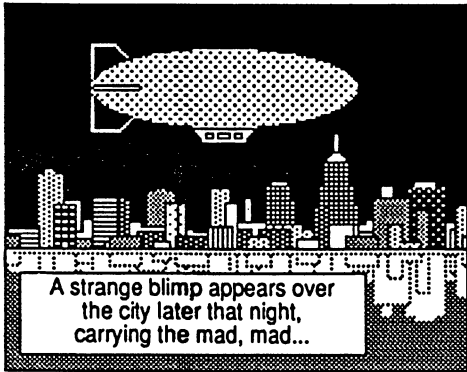
All the hoopla about Windows for PCs for the last year or so and the idea now of PCs doing multimedia has been second nature to Amiga computers due to the way the computer is structured. The Amiga is an original, so own one and become introduced to the "virtually" real computer world.

Randhir Jesrain is a Commodore Amiga computer buff and is the owner of Compuquick Media Center.

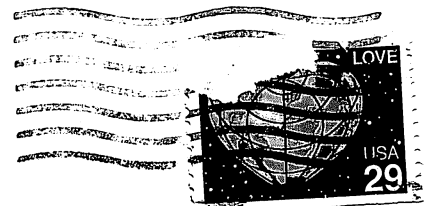
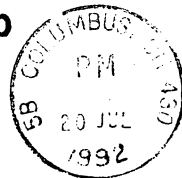


Even you can be a musical maestro with Amiga's full sound stereo capabilities.

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