LUCKY REPORT

LOUISVILLE USERS of COMMODORE of KENTUCKY, INC.

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24 HR BBS
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OCTOBER
1996

Disk Of The Month

L.U.C.K.Y D.O.M. #F235
October 1996

SIDE ONE - 128 Programs

Program One, Read Me-Information about this disk.
Program Two, Auto Menu-List menu of programs on this side of disk.
Program Three, Disk Info.-extended information about this disk.
Program Four, 128show/5.sfx-a picture show with its own program to run it.
Program Five, 128show/6.sfx-a picture show with its own program to run it.
Program Six, Multiterm128 2.0, 1,2,3, phone modem program.
Program Seven, Rad Labels will print labels.
Program Eight, 80 col.cable- info on making your own cable up.
Program Nine, Copy All 128-copy program using two drives.
Program Ten, Gamecat 128 V1/Gamecat 128 Boot. a file maintenance program.

SIDE TWO - C64 Programs

Program One, Read-information about this disk.
Program Two, Disk menu-directory of programs on this side of disk.
Program Three, Oxxonian+10, arcade type imported game.
Program Four, Vyrus/NeI, arcade type imported game.
Program Five, Stuntexperts/Msd, arcade type imported game.
Program Six, Terry's++/mbd, another arcade type imported game.

Treasurer's Report
By Bill Bunch

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⟩⟨ SEPTEMBER 1996 ⟩⟨
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Beginning Balance..$ 736.32

INCOME:	$ 264.53
Library..........$	0.00
Raffle...........$	83.00
Dues.............$	60.00
N.Sidebottum.....$	20.00
Interest.........$	1.53
Re-post check....$	100.00

EXPENSES:	$ 118.75
Newsletter.......$	39.75
BBS for Sept.....$	30.00
Postage..........$	19.00
Xavatern 9.6.....$	30.00

Ending Balance.....$882.10
Variance: (+145.78)

DISK LIBRARY
BY STEVE GRASSMAN

To avoid confusion, please direct all questions to the Library Assistants at the other end of the table. PLEASE Do Not BOTHER THE COMPUTER OPERATOR?? This will minimize mistakes on backups being made. *Thank you.*

To order diskettes, fill in the order forms provided by the Library Assistants. Make sure you PRINT cleerly the Information requested on the form. This will speed up the filling of orders.

Notes from the Red Room:

By: Dan Koleski (club president)

Fellow L.U.C.K.Y. members:

Another month has sped by and those colder months keep getting closer. If you're like me, you're scurrying around trying to get projects completed before it gets too cold to get outside. The only good thing about the cooler weather is that I get more computer time in. The nicer weather brought people out and we counted thirty-one people at the September meeting. Almost had to haul out extra chairs. I'm proud of you, but, I know we can do better. There were still a lot of faces missing.

We received the 10 copies of Nick Rossi's Novaterm 9.6. Dale had already purchased a copy so we have 9 copies left. We need to sell every one of these copies, so get them while they're still available. Maybe we can get Dale to give us a demo on this program in the near future. Dale and Roger showed off their 20 meg CPU units and from what little I saw, they looked pretty nice. I believe they may bring them back in tonight for a continued demo. We took in enough to raffle off the 1581 drive and the lucky winner was none other than Steve Grassman. Congratulations Steve. I believe we are going to have a C64 system for our next raffle if I can remember to get it out and ready to go. This should consist of a C64, 1541 drive and some printer. The attendance raffle of $10 was not claimed so this month it will be $15. Maybe someone will be present and claim the money.

When I was putting the newsletters together last month to mail out, I did a survey to see where they went. So, for your viewing pleasure, here are my results. We mailed out 48 newsletters with 34 of them going to some other club in the United States. Two others went to a foreign country and the remaining 12 went to members who were not present. Remember, if you want to be on the mailing list so that you can receive the newsletters when you can't make the meetings, let me know so that I can put the information in the data base.

We took a vote of sorts on whether or not to have a paper airplane contest again next year. I suggest we have one in the Spring and to have it in conjunction with a club picnic. So, this is what we will be attempting to do sometime next year. The remainder of the details will have to be worked out then.

Since I am writing this a few weeks before the meeting, I cannot tell you about the Computer Festival at the fairgrounds. I hope it will be a success, but only time will tell. Several members agreed to man our booth, so who knows, maybe we can pick-up some new members..

Time to close this up and get into something else. Ta Ta

Danny Koleski

The Bored Room

By Dave Snyder, SysOp of LUCKY BBS

Ah! at last the weather is getting to be just my style. What else is new on and around the Lucky BBS?

Well for starters, there is good news. The usership on the board is up pretty well. In fact it's so good that I've almost had to bump people off so I could even do maintenance. That's what I like. Busy, busy, busy.

There have been a series of crashes on the BBS for no good reason. One caused the date to be set back several months and the pointers files to become corrupted. I think this one happened right after the game was reset. I had to start the whole thing over the next day again. For those who don't have any idea what I'm rambling about, the pointers file is a file in which the system keeps information about who did what and when, account information and all sorts of critical information about what C-net needs to keep things operating smoothly. If this file gets out of order then things like information about when you last logged on and whether or not you read posts and mail, etc, gets messed up and you get all kinds of weird things happening. In any case I had to reset the pointers file and sort all of the users and rebuild the user database. While I was at it I took a half an hour to shut the whole thing down and let it take a short break. You have to remember that the board runs continually 24 hours a day 365 days a year. Come to think of it, I guess the thing hasn't been off for a total of probably an hour or two in 8 years. I guess that's a pretty good reliability record for any computer, isn't it.

On a personal note, my life has undergone some major changes, I have mostly retired from the remodeling business and have gone full time into the computer business. (that's one reason there was no "Bored Room" last month). Its been a challenge but things are beginning to settle in now.

It's hard to teach an old dog like me new tricks but it can be done.

Dave Snyder, Sysop
.s

Factoids:

Here are a few hints and tips on using C-net (Lucky BBS)
1.. You can combine several commands and use the Up arrow key next to the restore key as a return. Like, so B3^r5 would go from the main menu to Bulletins section 3 and read message number 5. B1^RA would go to section one and read all new messages.

There is a little used section containing text files of interest to read or buffer and save. Hit G from the main menu. Got a good file to put into the G files? Upload it to the text files section and leave mail for the sysop letting me know that you want it in the G-files section.

You can change information about yourself (your user profile) by hitting the Z key from the main menu. Select a number and you can update info like your phone number and birthdate, address etc.

? is a great little secret. Or you would think so. At any prompt the Question mark will get you an explanation of the available commands at that point in the program.

You can change your password any time you like by typing PW at the main menu and entering your OLD password and then entering a new one. Not a bad idea from time to time. Just be sure to keep track of the new one and don't give it out to others.

In the Bulletins section and the UD sections the < and > keys will move you from one section to another with the > going to the next higher section and the < going down through the list.

Only if I haven't totally confused you on the first Magic article, let me try again.

Typing tip, A fast way to Poke a zero in Direct mode is by typing POKExxxx, then rolling your finger off the comma key onto the period, then pressing the return key.

The computer interprets the period as a zero, and you've saved a few thousand microseconds of finger fumbling.

Disk disaster prevention.....If there is an asterisk to the right of a filename on your disk directory, that file is corrupt and should be removed form the disk. But don't scratch it, or you may be courting disaster.

Instead, do a disk validation, which will remove the corrupt file. If you're using the wedge program, @V will validate your disk.

Now let's do a debugging hint. If you have a program that contains a lot of Data statements and you are reading from these and Poking to other locations, neglecting a comma can mean an Illegal Quantity error. Instead of searching through these statements to find the incorrect one, you may use the data line number locations to locate the bad line. Simply type:

PRINT PEEK(64)*256+PEEK(63)

The computer will respond with the line number of the illegal Data statement. This is much easier than searching through all the data.

Joystick substitute - If you have a C64 but no joysticks, you can simulate joystick operation from the keyboard. It's not the most convenient thing in the world, but it does work.

PORT ONE	PORT TWO
Fire-space bar	space plus M key
Up-1 key	space plus f1
Down-left arrow	space plus Z key
Left-CTRL	space plus C key
Right-2 key	space plus B key

Here is a good reason not to scratch a file (s) on a disk then copy to it.

I typed a program and I saved it to my disk, then loaded and ran the program. It loaded and ran fine. Later on I transferred a file to this same disk. Now I have two different files on this disk. Keeping in mind that I have scratched several files before hand. After awhile, when I went back to load the first program, I got the second instead. WHY you ask?

This problem often arises when a disk has been used for a while, contains some programs, and at least one program has been scratched. Then another program is saved, but something happens and the save doesn't work. The read error light flashes and you know you have a problem.

Your files have become crosslinked. The only sure cure is to copy the entire disk to a freshly formatted disk, copying one file at a time, rather than using a disk back up program.

The most probable cause is that at some previous time you scratched (erased) an improperly saved program or file (one whose name appeared in the directory with an asterisk next to its filetype, but could not be loaded). For future reference, the proper way to get rid of such improperly saved files is with the disk Validate command (know as the Collect command).

FROM THE ROOM DOWN UNDER.

Larry J. Bailey

Commodore's Main Distributor

First four series of three articles by K. Dale Sidebottom

My Commodore reminds me of Tombstone, Arizona, in the days of Wyatt Earp; it's just too tough to die! CBM tried to kill it four or five times, but high demand always forced them to put it back into production, until the day they mismanaged to kill themselves.

Meanwhile, we have seen 16-bit and 32-bit computers come and go in popularity. Now the Pentium chip is all the rage, allowing 64-bit addressing at 100 megahertz, while our beloved 8-bitter still strolls along at 1 or 2 megahertz (unless you are the lucky owner of a SuperCPU)! In spite of all this, Commodore enthusiasts are still hanging tough! Or are they?

Let's be honest! Our ranks seem thinner than they were. Many Commodore groups that were active five years ago are now history. Companies which sold our products for years no longer supply us. Repair parts are becoming more and more difficult to locate. Are you wondering how we will continue when the parts disappear forever?

CMD has just finished the SuperCPU for the 64. Yet, at the moment of our greatest triumph, we seem to be uncomfortably "on edge." I am increasingly concerned about the gloom and doom creeping into our Comm-adoring community. Yet, the signs are unmistakeable.

In the last issue [#15] of *Commodore World*, CMD was feeling the heat. The issue was late and Charlie Christianson, CMD's co-founder, sought to reassure subscribers by directly addressing their concerns.

You've probably even begun thinking of worst case scenarios. Is it that they are going to stiff me like so many previous Commodore magazines have? Is it that they just don't care? Are they getting out of the Commodore market?...[We] can truthfully answer NO to all of [these questions]!"

> Commodore users seem to fall into two groups--
> those who love the Commodore as CBM left it,
> and those who probably would have left it if not for CMD.
> *--K.D.S.--*

Can you blame us for being nervous? Many of us feel like CBM abandoned us. Berkeley Softworks, creators of GEOS, treated us no better. It seems that we no sooner help make a company prosperous than they move on to bigger markets! By this theory, the more successful CMD becomes, the quicker they'll leave us. Who can blame us for feeling a little paranoid!

Charlie's "From the Editor" speaks to this point, as well. *"We have about a half a dozen people who have dedicated the last nine years of their life to the survival of our beloved C-64 and C-128 platform. So without laying it on too thick, let me simply say that our subscribers need never question our commitment to Commodore World!"*

Meanwhile, some 64-users were getting upset by continual delays on the release of the SuperCPU. I remember reading an article by Pete Baker first published in COMM-LINK[1] He had sent in a $50 deposit in January toward the purchase of a 64-accelerator expected in April. He was still waiting in June. He described his frustration of waiting for months without a satisfactory explanation from CMD.

"The thing is, CMD is about the last company providing any hardware to the 64/128 user, so we want to support their efforts by buying their stuff. I can say that I've tried to do so, only to be put off by CMD for my trouble."

I empathize with him because I know many Commodore enthusiasts questioned why a 64-accelerator first targeted for February was not shipped until August! This can test anyone's patience. But I also feel a great deal of empathy for CMD!

Imagine the whole Commodore world holding its breath, waiting for YOU to make good on a promise! The pressure would be ENORMOUS! And this isn't just any promise either. This one requires you to resolve some of the most difficult technological challenges that anybody in Commodore has ever mastered!

I remember speaking about this to Charlie back in 1992 when I was preparing an article for *geoVISION* magazine. I

Author's Note:

Mark Fellows created JiffyDOS and began to market it in 1986 as Fellows, Inc. The following year, he joined with Charles A. Christianson to found Creative Micro Designs, Inc. (CMD) in order to expand and to produce new products.

Commodore once referred to Commodore Business Machines, Inc. (CBM). Since they went bankrupt, the word "Commodore," as used in this article, never refers to the Commodore business. It always refers to the Commodore 64 and 128 in their various forms or to the community of Commodore enthusiasts throughout America and around the world.

CMD is a trademark of Creative Micro Designs, Inc.

asked him then about the possibility of a CMD "turbo cartridge." He answered that current cartridges all had compatibility problems. CMD would never create such a an accelerator unless it could be made largely compatible with existing hardware and software. He left me with the impression that such a task would be next to impossible and that it was unlikely they would ever pursue it.

Fast forward four years, and look around. The impossible is about to happen! CMD is so very close and, yet, so far.

As Charlie explained to me in July, the SuperCPU's were out on the dock ready to be shipped on three different occasions only to be pulled back in for further modification. All ordered SuperCPU's were, at that moment, sitting in the warehouse ready to go. Almost! Only one thing was missing. Mark Fellows, CMD's other founder, was barricaded in his labratory, laboring hour after endless hour to perfect the ROM chip or "brain" needed to complete it!

Now that the SuperCPU is an accomplished fact, the crisis is over and we can all breathe a sigh of relief. My SuperCPU is plugged into my 64 and GEOS glides like "greased lightning." It seems like *"God's in his heaven, all's right with the world,"* at least, until next time.

Today I find it hard to believe that, for nearly half its existence, I hardly heard of CMD. Early on, I became a geoNut. As I would tell my friends, "If GEOS doesn't do it, neither do I!" Since GEOS doesn't need JiffyDOS, I had no contact with CMD.

Everything changed in 1991. CMD introduced the RAMLink and I was hooked! I was so impressed by their revolutionary REU that I wrote an article in 1992 which appeared in the Premier [Jan/93] issue of *geoVISION* magazine. My faith in the magazine soured when it only survived three issues, but my perceptions on CMD proved prophetic.

If you have a copy of this issue in your archives, turn to page 6 and find a feature story entitled, "Commentary on 1992: CMD Takes Center Stage."

"By far the most exciting development ...in 1992 was the ascendency of Creative Micro Designs (CMD). This was the year that they pushed the HardDrive, mastered the RAMLink, and introduced the new FD drives.

"Once upon a time we depended upon CBM for hardware and Berkeley for software...But who do you turn to when you want to 'push the envelope?' When you want to expand the limits of your computing world, who do you call? I usually call CMD."

Since that time, CMD has become Commodore's Main Distributor. As a computer friend expressed recently, "It seems like all the other suppliers are dumping what they have on their shelves and getting out of the Commodore business. CMD is about the only place where I can buy what I need."

> Too often we have seen people leave their Commodores... because they could no longer accept the uncertainties...
> **These uncertainties must end!!!**

I pointed out that the reason they continue to distribute while others "close out" is simple. What they cannot purchase from their suppliers, they produce! This is especially true in the area of Commodore compatible hardware.

Take a moment to consider what our Commodore world was like when CBM left us; that is when they stopped developing new products for our 64's. Then think about what we have now.

For instance, when CBM left us, I had a 1351 mouse with a roller that was never quite round. It was so susecptible to dirt and grime that I had to clean it continually. Now I use a three-button mouse from CMD that is so "smart," it can tell time! It works great and keeps clean!

When CBM left us, we had a ram

expansion with a maximum storage capacity of 512 kilobytes (K), or half a megabyte (MB). Today, by using the RAMLink, we can have up to 16 MB.

When CBM left, our fastest modem was 2400 bps (bauds per second). Now several sources provide modems exceeding that. CMD's offering is the Swift-Link which is advertised at 14,400 bps but has been known to achieve speeds of 38,400 bps.

When CBM left us, the largest capacity drive was the 1581, a 3 1/2" disk drive. It stores 800K or about 0.8 MB.

Unfortunately, CBM didn't make many of them; so there weren't enough to go around. CMD responded by producing the FD-2000 with a capacity of 1.6 MB. This drive doubles the memory capacity available on the 1581, much as the 1571 doubled the capacity of the 1541 drive.

By far the most dramatic difference between then and now is the maximum accessible memory on a single drive. We have reviewed the 1581 drive and its 800K (0.8 MB) capacity. That was all we had.

Since then, several hard drives have been adapted for the Commodore, but CMD went even further. They created an innovation called "CMD native mode" partitions which can vary in size from a block (256 bytes) to 16MB! A Commodore can recognize as many as 254 of these partitions.

Now imagine formatting your hard drive so that you can create 254 native mode partitions, each of which is 16MB in size. Your Commodore 64/128 can now access up to 4.4 gigabytes (GB) on a single drive!

If you are like me, you are asking, "What's a gigabyte?"

Simply put, a gigabyte is approximately a billion bytes of memory. For instance, my LUCKY computer club[2] is justly proud of its library which has about 1300 1541 disks. Yet, our library contains less than one-fourth of a gigabyte of data. We could increase it by a factor of twenty, and it could still fit onto one Commodore-compatible hard drive!

Comparing again the old to the new, CBM's 1581 left us with a maximum drive capacity equal to five 1541 disks. Through

CMD native mode partitions on a hard drive, we can now store up to 4.4 gigabytes, which is equal to the combined storage of 27,500 1541 disks! Now *that* is what I call *growth!* [3]

So far we have only discussed hardware. Check out a CMD ad from 1991 or 1992, and you'll find little software is offered. Today their advertisements read like "Who's Who in Commodore Software!"

They have worked diligently to bring all the commercially viable software [*the really good stuff*] under one roof. For instance, GEOS users are grateful that CMD could negotiate with Berkeley to keep GEOS alive. Thus, a company which was once principally hardware-oriented now offers the best Commodore software, as well.

How about communications? CMD publishes *Commodore World* which is the only national glossy print magazine we have. They also have taken over the job of SYSOP on GEnie.

Last, but not least, they offer support for those who need their computer equipment repaired. They may cost a little more, but they know as much about the inside of your Commodore as any company in America. When all else fails, send it to CMD!

Someone will likely conclude that this article was written to endorse CMD. If that opinion encourages anyone to increase their patronage, well and good; *but it misses the point!*

Since I became a Commodore user in 1982, I have never seen our community take such "body blows" as it has suffered in the last several years. We have seen Commodore magazines die that shouldn't have. We suffered the death of a parent (CBM). We watched the heirs, Escom AG of Germany, disdain the the 8-bit technology which we hold so dearly and they hold so casually! Such disappointments cut deeply.

Thankfully, even the darkest clouds can carry a silver lining. For instance, LOADSTAR still produces a super disk magazine. GEOS users appreciate Maurice Randall, whose geoprogramming is a godsend. I know you can think of others.

Nevertheless, the sad events of the recent past have spawned a sense of calamity and apprehension within many, and *these are not the building blocks of a strong computing family!* Too often we have seen people leave their Commodores, not because they were excited by another platform, but because they could no longer accept the uncertainties of this one!

These uncertainties must end!!! A clear message must echo in ever corner of our computer world that, with the development of the SuperCPU, the Commodore has turned an important corner. The pendulum which has been swinging the wrong way for years is now moving in our direction. The kind of support that we once sought from CBM can now be found ___ at CMD!

Sing a song of Commodore,
Filled full of hearty praise,
Then toast the s__seers who said
Its seen __ __ days.
Let those __ __ __
Enjoy __ __ __
For in these d__ __ Commodore,
The best is __ __
—K.D.S.

There is a story close to home that illustrates my point. My son-in-law, Roger Lawhorn, is a programmer. He has written programs like GEOSIDPLAYER and COLOR GeoPrint which are probably used in every "Commodore" country on the planet. When he began programming in MS-DOS for financial reasons, he never lost his love for Commodore.

Recently, when I demonstrated my SuperCPU for him, he wanted to begin Commodore programming immediately! He soon sold his 486 computer so he could purchase a SuperCPU and a used CMD HardDrive. As a programmer, he can see all kinds of new possibilities!

We still need to remember that the people at CMD are *people* and, therefore, not perfect. Yes, they could have done a

better job of explaining to us why there were so many delays on the SuperCPU. But Pete Baker will be the first to tell you that it was definitely worth the wait!

Let's also give credit where credit is due. We know our Commodores are *too tough to die.* CMD appears to have the savvy to share that vision, as well as the wisdom to capitalize on it. For last the nine years, they have intelligently sought to fill the gaps and plug the holes in the good ship *Commodore,* and we should thank them.

You should also recognize that with the completion of the SuperCPU, CMD has really "come of age!" You'll never get the modest folks of East Longmeadow to admit it, but they have proven themselves capable of doing anything that they absolutely, resolutely set their minds to accomplishing!

What can we expect in the future? If my perceptions of CMD in 1992 were accurate, perhaps you will allow me to share my perceptions for 1996. I see a company that is generally pleased with their position in the industry and content to continue their current direction for the foreseeable future. If the bad news is that CMD may, indeed, be a company "on the move," the good news is that they plan to take us right along with them. It promises to be an extraordinary ride!

Now that the SuperCPU's are flying out the door, what might CMD be planning for an encore? Read all about it in part 2, "CMD, Commodore's Major Developer."

[1] COMM-LINK is the newsletter for HACC, Hub Area Commodore Club. Contact them through Rita Smith, 743 Jewel Ave., Yuba City CA 95991

[2] LUCKY is the Louisville Users of Commodore of Kentucky, Inc., P.O. Box 9551, Louisville KY 40209-0551. E-Mail them at 3050@iglou.com

[3] Hard drives exceeding 2GB must be specially ordered from CMD, P. O. Box 646, East Longmeadow MA 01028 or you can call 1-800-638-3263.

S K Y F O X - A Review

Ok, now I am going to talk about a 3-d flying simulation that will blow your socks off. Providing you like flying combat. This game puts you in a cockpit of a space age flying machine.

Some games are all strategy, some are all action, buy many of the best games require both forethought and quick reflexes. Skyfox is one of those games, and it's clearly one of the best out there. With its' many levels of difficulty and player options, virtually anyone will find it challenging and rewarding.

The elements of strategy in this game recall the venerable computer game of star trek. You're the last hope of the federation asteroid base, the only pilot available. What's more, you've got to fly this experimental jet without sufficient training, and you can't even recall everything this advanced craft can do.

The asteroid base has been attacked by the enemy, one or more immense motherships which convulsively disgorge wave after wave of tanks and planes. Their mission is to destroy the federation homebase which houses the skyfox computer and the only place where you can refuel and recharge your shields. From time to time, you must check with your computer's grid map of the entire asteroid to see where they are getting close to homebase. You should try to take them out. If homebase is destroyed you can still prevail, but it will be far more difficult.

The action elements of the game are among the best you'll ever see: realistic, realtime graphics; excellent stereo sound; complex air and ground battle scenes. heat-seeking missiles, laser cannons, enemy tanks and planes, clouds, cockpit controls, etc. are all vivid and believably recreated using computer graphics in three dimensions. Skyfox is more than a game: it's an effective visual and aural simulation.

The simulation is made more rich by the large number of options you have during your struggle to overcome the enemy: a tactical map; room maps of individual sectors; automatic pilot; an installation status report; fuel, speed, and shield indicator; x and y coordinates; a compass readout; forward and rear radar scanners; techniques to move between sky and ground battle; and an altitude indicator. Make good use of these tools and you'll find yourself capable of moving up in rank and attempting some of the more drastic invasion scenarios.

Before an invasion starts, you select one of five levels ranging from cadet through ace of the base. Then you choose one of the 15 scenarios. There are 7 training scenarios during which you can work to improve the accuracy of your control over the inertial motion of skyfox and steel your nerves against the smoke and flame and relentless attack of enemy tanks and planes. There are no motherships during training. Also, homebase cannot be destroyed.

When you feel confident that you're ready for the real thing, select a small, full, or massive invasion. These differ primarily in the number of motherships active during the game. If you eventually become truly skilled, there are the five ultimate invasions during which multiple motherships attack using different formations and varying strategies to take out your homebase. These scenarios are called halo, alamo, advancing wall, chess, and cornered.

Speed, sophisticated graphics, and quality stereo sound, is an excellent medium for this challenging, vividly realized game.

In a sense, this games goes to show us just how far the designers and programmers can take a little and do a lot.

From The Room Down Under.
Larry J. Bailey

The Big Wheel in the Sky...

Okay, okay... so I haven't finished the changes to Empire. It is keeping itself busy, and I am not about to mess with it while it is working correctly. I only ever hear about it when something is wrong. I am going to work on it this weekend, so that means a reset... gauranteed. So play while you can, and I will post the finals before I, ummmm, kill it.

So, how is the BBS running? Are ve using it? I need to check with Discjockey to see if the UD sections are working correctly. If anyone has any questions, drop me a line... either email me on the BBS, LU2, or via the 'Net, Legacy@iglou.com and I will try to drop a reply. Another vay to get me, is to contact either Dave, or Dan-o, they are both on the BBS, and on the 'Net.

Has anyone seen the Super CPUs vet? The guys on the 'Net have, and t is a mixed review. Most of them think they are OK, but of limited use. The software that will not run, either at all, or in a correct ashion, is long. Some of it works jood, mostly GEOS and its supported programs.

If you run GEOS, consider one. But, you will be looking at more changes to take advantage of it. Normal 1541, 1571, and even 1581 Irives are slower than it is... so t has to wait for them. If you already have, or are planning on purchasing CMD units, the HD series, 'D series, and the RAMLink/RAMdrive, then you are grinning, cuz what does t matter how fast the computer runs, if you have to stop and swap lisks every two seconds??? But think about this: All the Commodore 64 stuff in the world will run on an UNmodified 64 or 128, with very few exceptions. So think about what you vill gain from the expenditure.

AND THE WHEEL TURNS YET ANOTHER TURN...

Legacy

RUMINATIONS...

So, how has everything been going in your Commodore land. Things have been just fine for me, thank you very much. This month's newsletter contains an excellent article by your future newsletter editor, Dale Sidebottom. It is a *MUST READ!!!* Especially for GEOS users.

The last month has seen my heart soar as far as the BBS is concerned. Six, count 'em SIX, days in a row I had to use a multi-dialer in order to get through. Obviously, the board's usage has increased. It wasn't all that long ago that I could log on every month (once a month, mind you) and read all the new bulletins in a matter of minutes. Lately, I have been logging on almost daily and I'm finding new posts every time. A big round of applause for those of you taking advantage of this outstanding asset of our club. Now all we have to do is get Legacy to make the "Empire!" game a little more equalized, and perhaps more limited in size, and we'll have it made!!!!!

As I alluded to previously, Dale Sidebottom will be taking over the reins here at the LUCKY Report in a couple of months. I hope that you will continue to give him the support and appreciation that you have given Legacy and me. It would be nice, however, if a few more of you would submit articles. When one is first beginning an adventure like this (and it is an adventure), things are difficult enough as it is without struggling to come up with material.

Now, let's see if I've got this straight. Winter is coming, and that means more time computing. LUCKY as a club is standing strong and fast. CMD is giving us, as Commodore users, as much support as CBM ever did. The LUCKY BBS usage is up. The sun is shining. And only two more newsletters for me to produce. *LIFE is good.*

LIVE LONG AND PROSPER, L.U.C.H.Y. PEACE AND LONG LIFE, Commodore. TANSTAAFL   Dan Trawls

Trivia Answers

A #098) 986.248449 kHz. It is derived by taking the main clock frequency (17.734472MHz) and dividing it by 18. Thus the PAL 64 actually runs slower than the NTSC one.

A #099) Data is latched in to the 65XX on the falling edge of Phi0 (Phi1). The timing diagram in some books (64 PRG is one) is incorrect.

A #09A) The 75XX line used in the 264 series (Plus/4 and C16), and the 85XX series used in the C64C and C128 series.

A #09B) The answer is location $FF+10 mod 256 = $09. The answer involves explaining a (mis)features of the NMOS 65XX CPU line. The above code instructs the 65XX CPU to use zero-page addressing mode to load the accumulator. In zero-page addressing, the address need only be one byte wide ($FF in this case), because the high byte is considered to be $00. Now, as humans, we would expect the CPU would add 10 to 255 ($FF), giving 265 (#109) as the address to load the accumulator from. However, the CPU designers decided that zero-page addressing means that the high byte will be $00 all the time, no exceptions. If a situation like the above occurs, the low byte of the addition will be used as the low byte of the address (9 in this case), but the high-byte will be ZERO. All zero page addressing modes work this way. Note that the CMOS versions of the 6502 do perform the high byte "fix-up", so this behavior is only seen on the NMOS parts.

A #09C) This was a trick. The code is trying to use INDIRECT INDEXED indexing mode using the x register, but that addressing mode can only be used with the y register. If the code is changed to the following, legal code:

```
ldx #10
lda ($FF),y
```

Then, the above discussion for zero-page addressing holds true here as well. The effective address would have been (hi:lo) $100:$0FF, but is instead (hi:lo) $000:$0FF. The simple rule is: zero page means exactly that. There is no way to address outside of zero-page with zero-page addressing.

A #09D) 1. The 6501 used two, as the 6800 used two, but the 6502 and successors only required Phi0 (Phi1). Phi2 was generated on the CPU.

A #09E) $FFFC. The address formed by reading $FFFD and $FFFC is stuffed into the IP, and the code is read starting there. $FFFC is read first, since the 65XX line stores addresses in low byte, high byte format.

A #09F) Bill Mensch. He hand-designed these newer parts in the 65XX line in the same manner he and Chuck Peddle and others hand-designed the 6501 and 6502.

Commodore Trivia

Q $0A0) In the mid 1980's, Commodore introduced RAM Expansion Units for the Commodore 64, 64C, 128, and 128D. There were three of them. Give their model numbers, and what was different among them.

Q $0A1) Some of the CIA integrated circuits used on the C64 and C128 computers have a hardware defect. What is the result of this defect, and when does it occur? (May be more than one, but I need only one)

Q $0A2) Name the Commodore machine(s) on which an Intel 8088 was an OPTIONAL coprocessor. (Hint, not the IBM clones)

Q $0A3) On Commodore computers beside the Plus/4 series, there are three frequencies used to record the data on the tape. Name the frequencies used.

Q $0A4) Commodore Plus/4 series computers can not read any cassettes recorded on other Commodore computers. Why? (Hint: It has nothing to do with the nonstandard connector on the Plus/4)

Q $0A5) During power-up, the Commodore 64 checks to see if it is running in PAL-land or NTSC-land. How does it determine its location?

Q $0A6) What is the 65XX ML opcode for BRK?

Q $0A7) On the 65XX CPU, what gets pushed onto the stack when an interrupt occurs?

LUCKY REPORT

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