CoCoNutz! E-Zine

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Index

What The CoCo Means To Me

Jim Cox

As I sat down to write this article, I tried to think of a title that didn't sound like one of my themes from 4th grade, but given what this article is about, the title just fits. What prompted this article (besides constant pressure from our industrious editor) is that I finally have my CoCo set up and I wanted to put into words why I'm starting to work again with the CoCo after all these years.

Many of you know of me from my participation on first the Princeton list and now the Maltedmedia list. As for my finally setting up my system, I'm sure more than a few of you are saying “it's about time!” I can say that there have been some roadblocks along the way, but the main reason is I'm a chronic procrastinator.

I look back on my history with the CoCo with more than a few regrets. During the early 80's when I was just starting out as an electronics technician for Sundstrand Data Control, I had a mail-order business on the side that sold role playing games such as Dungeons and Dragons. My first computer was a gray case CoCo 1 with 64K, and it was my little work horse. The CoCo and I plugged along until one day I was drawn away by the glitz of an Atari ST. (continued)

(continued from cover page)

I now look at my misadventures in merchandising and my complete disenchantment with the Atari after the company pretty much melted down. I now feel that if I had stuck with the CoCo, and gotten out of the mail-order business early on when I had the chance, I would have been a lot better off. I feel this is especially true because I now realize the true power and potential of the CoCo and I believe it could have been a springboard to better things for me, especially as a tool for learning microprocessor theory and programming.

As it was, I trundled into the PC world and muddled through for a year or two, not really caring much about computers. Maybe it was because of it generic nature, but my PC just didn't catch my imagination like my previous computers did. This was around 1991 and I had just transferred over to the Global Wolfsburg Division of Sundstrand Data Control and was assigned to be the principle service technician for the NDB-2, a older flight navigation system that nobody wanted to work on. As it turns out, it was a great move for me.

The NDB-2 was a 6809 based system with three 6850's and three 6852's, as well as a 6822 PIA. The 6850 and 6852 chips were used for communication with other systems via an ARINC standard and RS-422. I remembered that the CoCo was a 6809 based system and dug the little gray case out of the closet and briefly played with it. I later found out that the people who developed the NDB-2 did some of their development work on both a CoCo and a development system from Motorola. I also believe the Motorola development system may have been what Radio Shack used to develop the CoCo with too.

As luck would have it, Sundstrand sold GWS and several other divisions to Allied Signal and I was laid off. I then began working for Applied Microsystems, a company that made In-Circuit Emulators (ICE), and became the principle tech for several ICE for Motorola processors. This continued to fuel my interest in the CoCo and I ended up purchasing a CoCo-3 from somebody. It was about this time that I discovered the Princeton list.

Chatting on the Princeton list helped fill a lot of voids in my life and helped keep alive my interest in the CoCo. There was something neat about talking with other people all over the world who had a common interest in a little computer that was now orphaned by it's manufacturer. Unfortunately because of work, I had very little time to work with either of my CoCo systems. I did however attempt to set up a CoCo User Group in the Seattle area. Instead of people calling me to join the group, I had people calling me to ask if I would take their CoCo computers. Of course I accepted.

Over the years I have gotten to know a lot of the people on the CoCo lists and while I only have met a few of you in person, I still feel a strong bond with all of you. While the lists have had more than their share of ups and downs, they and the CoCo Community have endured. What is it about the CoCo that keeps us interested, if not dedicated to what others consider an obsolete computer? Why are we CoCoNuts?

Is it a sense of nostalgia and a longing for good times past or is it something else? I can't speak for any other CoCoNut out there, but for me, nostalgia does have something to do with it, but there are other reasons why I have such a strong interest in the CoCo and in the CoCo Community. Those reasons are friendship and hope.

More than once the friends I have made on the CoCo lists have been there for me. I am not referring to just answering a technical question or two, which is greatly appreciated by the way, but they have been there for me when I have struggled with a personal issue, or have suffered a loss. The best and most recent example of this was the when people who I have never met in person yet I still consider friends were there for me when both of my cats died last year.

For those of you who are not cat lovers or consider cats to be just pets you might not understand, but to me these two beasties were my family and losing them was like losing children would be to a parent. Bob Devries, Mary, Diego from chat, Brother Jeremy, and others offered support during this time and it meant a lot to me.

The fact that I could just reach out to these people meant a lot to me. I've seen this happen to others in the CoCo Community when something has happened or someone has suffered a loss, and I think that is what makes us different than the other 8-bit groups that are out there. While we are smaller than the other groups, we seem to be very supportive of each other. True we have our little disagreements now and then, but for the most they have made us stronger in the end.

The fact that after all these years and given our small numbers, the community still manages to put on a Fest every year says something about us. Though I have never been to a Fest, from what I have read, they sound like they are a blast. Not just a gathering of old computer buffs, but a gathering of friends.
I'm hoping to make it to the next Fest to meet as many CoCoNuts and friends as possible.

Along with friendship, the CoCo to me also means hope. As I wrote earlier, I have regrets about not staying with the CoCo and using it as a springboard to better things. I now find my career becoming stagnant and I want to move back into a job where there is more focus on microprocessors, much like the two jobs I mentioned earlier, but I am in need of a refresher on microprocessor theory. I believe that working with the CoCo to re-familiarize myself with microprocessors and learning assembly language programming for the 6809 will help me gain the momentum I need to move forward. Some people have asked why do I want to work with such an old computer? While there are more advanced processors to work with, I have over the years acquired virtually everything I need to get going with the 6809.

When you consider the 6809's pedigree, it's a great processor to learn with, and when you consider the CoCo Community, they are a great group of people to know and become friends with. To me that is a win-win situation. So that's what the CoCo means to me; friends, hope, and of course fun.

Cheers!

-Jim Cox
http://www.miba51.com

Nicholas Marentes

Basic Info

Age ---> 42

Kids ---> 2 boys, 6 and 8

Maried ---> Yes, to a female. :)

Pets ----> The kids have Tamagochi's. :)

Always lived in austraila?
Yes

What CoCo Groups were you Involved in

Back in the CoCo's younger years, there were about 6 active CoCo groups in my city. The only one I regularly attended was Bob Devries OS-9 group. It was closer to home and OS-9 was something I wanted to get to

grips with.

What careers or jobs have you had to support your gaming addictions

Firstly; I never had a gaming addiction. I rarely ever played games and I still don't today. For me, the interest lay in creating games...the challenge of accomplishing something, the reward that people would enjoy my work well enough to pay money for it and also the satisfaction of creating what I class as computer art. I would often sit back and watch others play computer games to marvel at the art...the design of the graphics, how it was animated, the implementation of sound and the inventive game play.

When I first started programming, I was in school and lived with my parents. Any money I made from the sale of CoCo games was bonus pocket money. After finishing school, I got a job as a technician, assembling PC clones. I did this for 4 years before switching to sales and working for Tandy Electronics (Radio Shack). This way I got to work with CoCo's!! When the CoCo was discontinued, I moved to a large department store selling Commodore Amiga and various PC's in the computer department.

What do you currently do now

Eventually; I got sick of working in the retail industry. The emphasis to become a good computer salesman was shifting from being knowledgeable and helpful to being a lying, commission hungry monster...so I decided a change was needed.

I landed a job at the state museum as an IT support officer and have been there now for over 11 years.

Ever attended college

After high school, I did do a 6 month course in Data Processing at college. They had Tandy TRS-80 Model III's!!! I knew all about them whereas the lecturer seemed to be stuck in the 60's with paper tape. I'd answer questions in exams and he would mark me wrong for things such as using colons to create multi statement lines!!! I found the whole course very backward and out of date, and this was back in 1985!!

I tore up my certificate and vowed to never use it for any job resume. Instead, I used examples of what I did with the CoCo to "sell myself" to an employer.

My first job as a technician was achieved due to my knowledge with CoCo's. I was actually working part time at Tandy Electronics for a short while till I found a full time job. A local CoCo user had come to me to get a non-Tandy printer that he bought elsewhere to work off his CoCo. I configured and wired up the serial cable needed and got him going. Next thing, I get a call from the company that sold him the printer offering me a job. Apparently, they sold him the printer and then spend days trying to interface it to his CoCo. They were stoked that I worked it out (and therefore saved them a refund)! The company was in the process of expanding and needed a technician to assemble PC clones that they were about to begin importing from Taiwan (the start of

the PC clone era).

Got any current projects going for the coco

Many ideas but unfortunately, no free time and an ever diminishing CoCo games market means that they remain as ideas.

Whats this about Mary's Mahem hehe

Well, you know the story but for the sake of the readers...

That was an idea for a game that popped in my head while chatting to Mary via Roger's excellent web site. While we were chatting, Mary was experiencing a tornado in her area and we were commenting how Mary was battling the tornado approaching her home. I decided to put a video game twist to it and came up with an idea for a game featuring Mary's house in the centre of the screen with Mary outside deflecting the attacking tornadoes. Briza came up with the creative title of "Mary's Mayhem".

I'd like to say I was stone drunk at the time and didn't really understand what I was thinking but I wasn't. I gave it some serious thought about a small hybrid BASIC / Assembly Language game that I could write and give it to her as a humorous gift.

Alas, the lack of time has not allowed me to do anything with it. Maybe collaboration with John Kowalski to create that 1K game for submission into that competition he mentioned in the last issue of CoCoNutz could be successful?

Will we ever see it ☺

Pour me another beer and ask me again later. :)

What is your current setup like now

Exactly as it was back in the late 80's when I was writing CoCo games
semi-commercially. A standard 512K CoCo3, two 40 track drives and a CM-8
RGB monitor. You can't beat the adrenaline buzz of programming a real
CoCo3 with floppy drives!!!

What is your favorite thing about the coco

It's accessibility. Power up and in less than a second, I can be typing
a BASIC program. I like having control of the internal hardware. The feeling of being one-on-one with the machine, no intermediate software layers to slow things down and distract me.

Fondest memory being CoCo related

Two stand out...

Achieving my dream of creating a commercial grade game that gets

marketed Australia wide. Donut Dilemma for the CoCo 1 & 2 eventually sold 3500 copies via Tandy Electronics stores all around Australia. This put a stop to parents and friends who thought I was just wasting my time programming games for the CoCo!!

The other fond memory is attending PennFest '99 and co-organizing PennFest 2000. I finally got to meet many of the CoCo users that I talked to via the internet.

Ever attended a cocofest past or present

The Australian version of the Rainbow was published in the city next to mine (about 1 hours drive). They would hold an annual CoCofest just like the American Rainbow did. The Australian CoCo scene never seemed to have any real heroes and personalities like in the US. We didn't have a Steve Bjork or Dennis Kitsz. Back in 1989, I decided to drive and attend one of these fests. They would start on the Friday evening, run through Saturday and end on Sunday just like the US one. I remember rolling up around midday on the Saturday. There was hardly anyone around. I was told that a group had decided to go on a bush walk that day. A bush walk!!?? Shouldn't they be CoCo'ing, not bush walking?! I stayed for a couple of hours and went back home unsatisfied.

Scarred by the incident, I vowed to attend a real US CoCoFest at least once in my life.

I was invited and part funded to attend the Pittsburgh PennFest '99 in the US as a special guest by Ron Bull and in 2000, I returned to co-organise and execute "The Big Birthday Bash - PennFest 2000". All the details are on my web site.

If you could have anything coco related what would it be

Easy!!! The CoCo3 prototype!!!

Who is your CoCo idol

That would have to be John Kowalski - The Sockmaster.

Hobbies outside of the CoCo lifestyle
Collecting classic computers and game consoles between 1977 & 1987 vintage.

256k color mode updates……..
No more progress. Waiting for Al Huffman to do up better photos of the prototype.

Have you ever created any CoCo Hardware

Rascan/Digiscan video digitizers,
DigiWiper video effects unit. It's all on my web site.

What is your favorite modern hardware for the coco

The internal fan I added to keep it cool on those hot Aussie nights!

I'm afraid I don't have anything modern for it. Cloud 9's superboard would be interesting but what I would really like to see is a drop in replacement for the GIME chip that functions identically but adds extra features such as more colors, internal IDE and the ability to run a faster CPU speed.

Have you wrote any sorta books or articles

I did a book called CoCoNuts a few years back. It was a collection of interviews from CoCo illuminaries.

Where can I get more info on your experiences with Penn Fest

The whole story is on my web site at...

http://members.optusnet.com.au/nickma/ProjectArchive/pennfest99.html

and

http://members.optusnet.com.au/nickma/ProjectArchive/pennfest2000.html

Was this your first time

1999 was my first while 2000 was, unsurprisingly, my second.

Do you keep in touch with any of the people you met there

Mainly via the CoCo list but home renovations and work have kept me too busy to even do anything really computer related.

What did you think of america

The people I met were great. I didn't really get much time to do much site seeing. My good friend Jim Davis took me to a lot of fantastic thrift stores. We're both collectors of computer and video game stuff.

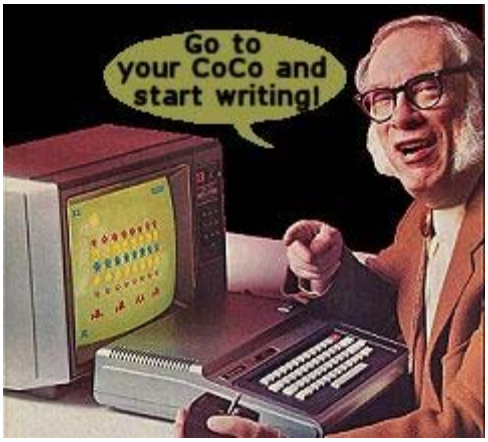
Please visit Nicks website, it is very comprehensive and informative. He has his own bio, and history of him and his work with the CoCo.

The Asimov Award!

Some 15 years after the CoCo3 was supposed to die, it's still alive. There is an active and creative community, with new hardware showing up every few months, and the NitrOS-9 D.O.S. being constantly updated and bug fixed. A mailing list, plenty of websites and groups, and of course, CoCoNutz,the picture seems quite healthy.
But something is missing...Seems that most of the software coming out is for developers, and not much else is being developed. It sure would be nice to have some of the great programmers that have worked with the CoCo do some new magic, but the real life fact is that writing a new game is a lot of work, and even one of the best ever games for the CoCo, Gate Crasher just sold some 40 copies.

So here is something to encourage programmers a bit. The "Asimov Award" will be given once a year to the best CoCo program for the final user. The prize is only $100, and I know that nobody is going to quit a day job to go back to the CoCo, but may be YOU are on the edge, just waiting for another small excuse to go back to the keyboard, and this might be it.
For more information, visit http://coco.sclaudia.net or contact me at diegobf109@adinet.com.uy

RULES: The rules are simple. Just email me your program - a DSK file would be great - and you are good to go.
The program has to be:



ORIGINAL: This means that you didn't copy it from a magazine or any other source, even if you modified it. It can be a clone of an existing program, as long as YOU write it, or port it to the CoCo.
UNRELEASED: It was never available to the general public. We want NEW programs.
COCO 3 COMPATIBLE; the only requirements to run it should be a standard CoCo 3, 128 Kb, 6809, and joysticks. It can be a disk only program, and use any of the display modes available.
DEADLINE: The program must be sent no latter than January 31, 2007. The winner will be announced no latter than February 28, 2007.

That should be all. I would really like to be able to offer for sale the winning program, and any other entries that will fit in a standard CoCo diskette for $5 + S&H, and use part of the money to finance a bigger prize for the next award, but that's up to the participants.

I have uploaded a number of PDF files to
ftp://maltedmedia.com/coco/australian_os9_files/

These PDF files are scans of the (Australian) National OS9 Newsletter, which were produced from July 1988 to August 1994 by Gordon Bentzen, Don Berrie and Bob Devries. I have provided and uploaded them in the interest of keeping them for posterity, and for the interest of current OS9 users.Below is a list of my coco software I have if you would like a copy. Email the Editor for copy requests.
Regards,
Bob Devries

coco software list

9TIMS1_1.DSK Nine Times Vol 1 Issue 1 (JWT Enterprises)
9TIMS1_2.DSK Nine Times Vol 1 Issue 2
9TIMS1_3.DSK Nine Times Vol 1 Issue 3
9TIMS1_4.DSK Nine Times Vol 1 Issue 4
9TIMS1_5.DSK Nine Times Vol 1 Issue 5
9TIMS1_6.DSK Nine Times Vol 1 Issue 6
9TIMS2_1.DSK Nine Times Vol 2 Issue 1
9TIMS2_2.DSK Nine Times Vol 2 Issue 2
9TIMS2_3.DSK Nine Times Vol 2 Issue 3
9TIMS2_4.DSK Nine Times Vol 2 Issue 4
9TIMS2_5.DSK Nine Times Vol 2 Issue 5
9TIMS2_6.DSK Nine Times Vol 2 Issue 6
9TIMS3_1.DSK Nine Times Vol 3 Issue 1
9TIMS3_2.DSK Nine Times Vol 3 Issue 2
9TIMS3_3.DSK Nine Times Vol 3 Issue 3
9TIMS3_4.DSK Nine Times Vol 3 Issue 4
9TIMS3_5.DSK Nine Times Vol 3 Issue 5
9TIMS3_6.DSK Nine Times Vol 3 Issue 6
9TIMS4_1.DSK Nine Times Vol 4 Issue 1
9TIMS4_2.DSK Nine Times Vol 4 Issue 2
9TIMS4_3.DSK Nine Times Vol 4 Issue 3
9TIMS4_4.DSK Nine Times Vol 4 Issue 4
9TIMS4_5.DSK Nine Times Vol 4 Issue 5
9TIMS4_6.DSK Nine Times Vol 4 Issue 6

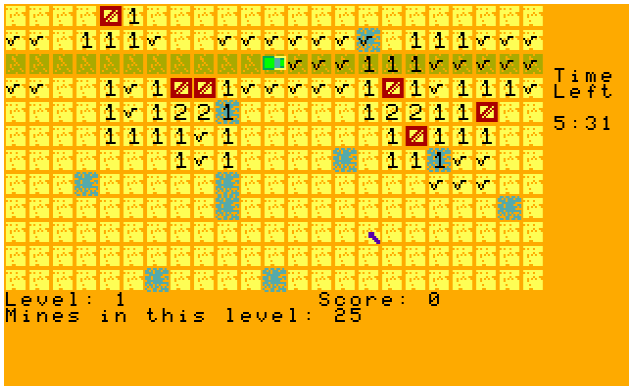
CARMEN_1.DSK Where in the World is Carmen Sandiego (Tandy) Disk 1
CARMEN_2.DSK Where in the World is Carmen Sandiego (Tandy) Disk 2
CCARTIST.DSK Color Computer Artist (Tandy 26-3277)
DCOM.DSK DCOM Basic09 Decompiler (Animajik Productions)
DESKMATE.DSK OS9 Deskmate Level 1 (Tandy 26-3259)
DL_LOGO.DSK OS9 DL Logo (Tandy 26-3033)
DSKMT3_1.DSK OS9 Deskmate 3 Level 2 (Tandy 26-3262) Disk 1 of 2
EZGEN.DSK EZ Gen Boot File Editor V1.08 (Burke & Burke)
FILRECVR.DSK File Recovery System V1.00 (Burke & Burke)
FILTERS1.DSK Filter Kit #1 (D.P. Johnson)
FILTERS2.DSK Filter Kit #2 (D.P. Johnson)
FLTSIM_1.DSK Flight Simulator level 2 (Tandy)
FONTMASS.DSK Font Massager (Sugar Software)
HACKERS1.DSK Hackers Kit #1 (D.P. Johnson)
HOMEPUB1.DSK Home Publisher (Tandy 26-3273) Disk 1 of 2
HOMEPUB2.DSK Home Publisher (Tandy 26-3273) Disk 2 of 2
L2UTILPK.DSK L2 Utility Pak (D.P. Johnson)
MICROS_1.DSK Microscopic Mission Disk 1 of 2
MICROS_2.DSK Microscopic Mission Disk 2 of 2
MULTIMNU.DSK Multi Menu (CocoPro!)
NEWSFNT1.DSK News Fonts (CocoPro!)
NEWSFNT2.DSK Newspaper09 Fonts Disk (CocoPro!)
NEWSPAPR.DSK Newspaper09 (CocoPro!)
NEWSPIC1.DSK Newspaper09 Pictures Disk (CocoPro!)
OS9CALLI.DSK OS9 Calligrapher (Sugar Software)
PHANTOM.DSK Phantomgraph ((Tandy 26-3276)
PRESTO.DSK Presto Partner (CocoPro!)
PROFILE.DSK OS9 Profile (Tandy 26-3274)
SDISK3.DSK SDisk3 (D.P. Johnson)
SOLITAIR.DSK Solitaire (CocoPro!)
SUBSIM_1.DSK Sub Battle Simulator (Tandy 26-3272) Disk 1 of 2
SUBSIM_2.DSK Sub Battle Simulator (Tandy 26-3272) Disk 2 of 2
TOOLS2.DSK Tools II (D.P. Johnson)
TSEDITDB.DSK T/S Edit Disk Basic Version (Tandy 26-3264)
TSEDITOS.DSK T/S Edit OS9 Version (Tandy 26-3264)
WORDPKRS.DSK Wordpak-RS Driver V1.1 (PBJ Inc)
ZONERUN.DSK Zone Runner (Tandy 26-3286)

One liner by Richard Kelley

```
It's this little black box, and it's come to wipe away everything on
the text screen, then disappear just as quickly as it came.  And the
oddest part - the cursor of ECB is right where you left it when you
started the program.  Enjoy.  :-)
```

```
10X=1535:POKEX,138:POKEX+0,138:POKEX,128:POKEX+0,128:FORX=1534TO1024STE
P1:POKEX,138:POKEX+1,133:POKEX,128:POKEX+1,143:NEXT:X=1024:POKEX,133:PO
KEX+0,133:POKEX,143:?
```

Mine Sweeper! The Mission…….
Diego Barizo



After some hard training with "Mine Camp", now is the time for the real deal. Help the UN save the world using your CoCo 3. First you have to find the mines and clear the route for the convoy. Every time you use the minesweeper in a square, it will tell you how many mines are in the 8 surrounding squares. Unfortunately, if there is any mine right there, it will detonate, and this valuable and irreplaceable device will be destroyed. Use that information to "flag" any mines you can find, so you can avoid them when is time to drive the convoy's truck to the end of the road, for 5 maps.

Here is an explanation of what the program does...
The code is a bit messy, because that's the way I do it, and I was running a bit to have it ready in time for the newsletter, but everything should work OK, and I "think" all the debugging code was removed :-)

The first routine is the introduction (7000-7170)
The text is read from DATA, and printed one character at the time for that classic "teletype" effect. The hammering sound is made every second letter to make it less annoying. Since the text fills 2 screens, the string "1" is used to indicate that is time to wait for the user to indicate if the rest of the instructions are to be displayed or not, and the "X" string to mark the end of the text. Because all the DATA has to be read, or the palette routine will fail, line 7160 keeps reading until the "X" is reached. After this, the variables are initialized (4000-4240) Two matrices, DIM M(25,14),F(25,14) hold the map, and the position of the flags. The real map is only 23x12, but the extra margin makes a lot easier to count the mines around, and the F matrix is the same size to keep themmatched. The level and time variables are initialized LV=1:TM=0:TH=6 and the obstacles are seed in the map. The number in the matrix, is the same that will be used in the HGET-HPUT buffer, making very easy to display the map. The road is created by selecting a starting and a finishing point M(2,SV)=1:M(24,FV)=1 Then, while SH traces the route from side to side, SV goes up or down. Both guided by RH and RV The graphics are created in 4500 to 4955,and the"sprites" are stored in HGET buffers with numbers that match the value used in the map matrix. All this is hidden since the palette has been set to a single color right after the introduction (4010) After the right palette is loaded in line 65, the map is displayed in the routine from 5000 to 5070. The colors are set for a RGB monitor, since there are cheap ways to connect a CoCo3's RGB to a modern display, but if you want to use a regular TV, just change the data in line 7260. Since the mines are not yet placed, the program can show all the map without giving anything away, and then place them in lines 5080-5160, being careful to avoid the

start and end of the road 5140 IF (X=2 AND Y=TV) OR (X=24 AND Y=FV) THEN 5100
The main loop is from 200-360 Here the joystick input is "resized" to match the map size, keyboard input checked, and time updated. I tried to keep the "flicker" to a minimum, even on the timer, and that probably added some unnecessary coded. From 1000 to 1250, the program checks if the player clicked on a mine, or in an already flagged square. If it's an empty square, then the number of surrounding mines is displayed. If that number is 0, (C=0), all those squares are also "surveyed" (1190-1250), using Z as a flag variable to signal that's the case. The routine 1500-1580, puts a flag in the F(25,14) matrix, the number of remaining flags is updated (MR=MR1) and if all have been used, a warning is sounded. If there really is a mine, the number of this is also updated IF M(H,V)=5 THEN ML=ML-1 The truck driving routine goes from 2000 to 2160, checking for mines, and the kind of terrain the truck goes over (2130-2140)
In this part I used the Loop-Endloop substitute, 2020 FOR LO=1 TO 2 STEP 0 The only way this loop can be exited, is by "manually" assigning a valueof LO>=2, like in line 2110. This system is faster than using GOTO, and works better when used in high line numbers (When you have a lot of lines, not when you start numbering them at 60000) Once out of the loop, the score is calculated starting in line 2500 Since the same routine is used when finishing a level, or finishing the game, either by reaching the goal or failing the mission, a few variables are checked to determine which is the case. JT=1 means that a mine was blasted, TH<0 means that the time is over. If that's not the case, and LV=5, then the 5 levels have been successfully solved In any of this situations, the game is finished. If not, the game goes back to line 70, where the map for the next level is displayed, and the main loop starts again. When a mine explodes, lines 3000-3130 deal with that, and then the score routine is called. Lines 3250-3350 are only reached when the game is over, and the final score is calculated. If the player wants to start again, some variables and the map are reinitialized. Clearing all would have been easier, but since the high score must be kept, that's not possible Note that since the playing board is actually smaller than the map matrix (23x12 vs 24x14 to make counting the mines easier) every time a sprite has to be displayed, the coordinates have to be adjusted. HG=H*12-18:VG=V*12-18

After finishing all this review the first time, I found room for a few improvements and corrections. I guess this proves that is always a good idea to give all the code a second look :-)

Please, email me to diegoba@adinet.com.uy or the maltmedia list if you find something else like this, or you have any comments.

```
10 PALETTE RGB
20 ON BRK GOTO 10000
30 GOTO 7000 ' INTRO
40 POKE 65497,0
50 GOSUB 4000 ' INIZALIZE VARIBLES
60 GOSUB 4500 ' SETUP GRAPHICS
65 FOR A=1 TO 10:READ B:PALETTE A,B:NEXT A
70 GOSUB 5000 ' SHOW MAP
90 MR=20+LV*5:ML=MR ' MR=MINES FLAGGED, ML=MINES REALLY LEFT
100 GOSUB 5090 ' MINES
200 REM MAIN LOOP
210 H=INT(JOYSTK(0)/2.8)+2:V=INT(JOYSTK(1)/5.5)+2
215 HG=H*12-18:VG=V*12-18
220 HCOLOR 2:HPRINT(36,7),INT(TM)
230 IF TH>-1 THEN TM=TM-.1:IF TM<0 THEN TM=59:HCOLOR
2:HPRINT(34,7),TH:TH=TH-1:HCOLOR 5:HPRINT(34,7),TH
240 HCOLOR 5:HPRINT(36,7),INT(TM):HPRINT(36,7),":"
```

```
250 HGET(HG,VG)-(HG+5,VG+5),7
260 HPUT(HG,VG)-(HG+5,VG+5),6
270 FOR LO=1 TO 10
280 IF BUTTON(0)=1 THEN 1000 ' IS THERE A MINE?
290 IF BUTTON(1)=1 THEN 1500 ' PUT A FLAG
300 A$=INKEY$
310 IF A$=" " THEN 1500
320 IF A$=CHR$(13) THEN 1000
330 IF A$="D" OR A$="d" THEN 2000 ' LETS DRIVE THE TRUCK
340 NEXT LO
350 HPUT(HG,VG)-(HG+5,VG+5),7
360 GOTO 210
1000 REM IS THERE A MINE?
1010 IF M(H,V)=5 THEN GOSUB 3000 ' BLASTED A MINE
1020 IF F(H,V)=1 THEN F(H,V)=0:HPUT(HG-6,VG-6)-(HG+5,VG+5),M(H,V)+1:
MR=MR+1:GOTO 210
1030 C=0:X=H:Y=V
1040 FOR A=X-1 TO X+1:FOR B=Y-1 TO Y+1
1050 IF B<2 THEN NEXT B
1060 IF B>13 THEN 1100
1070 IF A<2 THEN NEXT A
1080 IF A>24 THEN 1110
1090 IF M(A,B)=5 THEN C=C+1
1100 NEXT B,A
1110 IF C=0 AND Z=0 THEN 1190 ' EMPTY SQUARE, SHOW AROUND IT
1120 IF X=1 OR Y=1 OR X=25 OR Y=14 THEN 1160
1130 HPUT(HG,VG)-(HG+5,VG+5),7
1140 HDRAW"BM"+STR$(X*12-19)+","+STR$(Y*12-22)+N$(C)
1150 HGET(HG,VG)-(HG+5,VG+5),7
1160 IF Z=1 THEN RETURN
1170 GOTO 350
1180 IF Z=1 THEN RETURN
1190 REM EMPTY SQUARE, SHOW ALL AROUND IT
1200 Z=1
1210 FOR CX=H-1 TO H+1:FOR CY=V-1 TO V+1
1220 C=0:X=CX:Y=CY:GOSUB 1040
1230 NEXT CY,CX
1240 Z=0
1250 GOTO 350
1500 REM PUT A FLAG
1510 IF F(H,V)=1 THEN 210
1520 F(H,V)=1
1530 HPUT(HG-6,VG-6)-(HG+5,VG+5),4
1540 PLAY"T32EFE"
1550 MR=MR-1
1560 IF M(H,V)=5 THEN ML=ML-1
1570 IF MR=0 THEN PLAY"T8FCFCFC"
1580 GOTO 210
2000 REM DRIVING THE TRUCK
2010 H=2:V=TV:TM=INT(TM)
2020 FOR LO=1 TO 2 STEP 0
```

```
2025 HG=H*12-18:VG=V*12-18
2030 HPUT (HG-5,VG-4)-(HG+5,VG+5),8
2040 FOR DO=1 TO 2 STEP 0:A$=INKEY$:IF A$="" THEN NEXT DO
2050 HPUT(HG-6,VG-6)-(HG+5,VG+5),M(H,V)+1
2060 IF A$="^" THEN V=V-1:IF V<2 THEN V=2
2070 IF A$=CHR$(10) THEN V=V+1:IF V>13 THEN V=13
2080 IF A$=CHR$(8) THEN H=H-1: IF H<2 THEN H=2
2090 IF A$=CHR$(9) THEN H=H+1:IF H>24 THEN H=24
2100 IF M(H,V)=5 THEN 3000 ' RUN OVER A MINE!
2110 IF H=24 AND V=FV THEN LO=2:PLAY"ACB"
2120 HCOLOR 2:HPRINT(34,7),TH:HPRINT(36,7),TM
2130 IF M(H,V)=0 THEN TM=TM-1:IF TM<0 THEN TM=59:TH=TH-1
2140 IF M(H,V)=2 THEN TM=MI-5:IF TM<0 THEN TM=60+TM:TH=TH-1 ' OVER THE
ROCKS!
2150 IF TH>-1 THEN HCOLOR 5:HPRINT(34,7),TH:HPRINT(36,7),TM
2160 NEXT LO
2500 ' LETS CALCULATE THE SCORE
2510 HSCREEN 0:CLS 5:ATTR 4,4,U:LOCATE 0,23
2520 IF TH<0 OR JT=1 OR LV=5 THEN PRINT"* Final Score *" ELSE PRINT"Score for
level";LV
2530 ATTR 4,4:PRINT
2540 IM=20+LV*5
2550 PRINT"There were"IM"mines"
2560 PP=(IM-ML)*10:SC=SC+PP ' 10 POINTS FOR MINES FOUND
2570 PRINT"You found"IM-ML", that gives you"PP"points"
2580 PP=(ML-MR)*5:SC=SC-PP' -5 FOR FALSE FLAGS
2590 IF ML>MR THEN PRINT"But there were"ML-MR"false alarms,":PRINT" that's -
"PP"points"
2600 PP=ML*2:SC=SC-PP ' -2 FOR MINES NOT FOUND
2610 IF ML>0 THEN PRINT"There are still"ML"live mines.":PRINT"You lose"PP"points
for that"
2620 IF JT=1 THEN RETURN 'WAS THE TRUCK DESTROYED?
2630 TI=TH*60+TM
2640 TU=TI-(360-LV*72) 'ARE WE ON TIME?
2645 IF TH<0 OR LV=5 THEN 3250 'NO TIME OR FINAL LEVEL
2650 PRINT"With"TH"hs"TM"min left to get there"
2670 SC=SC+TU
2680 IF TU<0 THEN PRINT"YOU ARE RUNNING LATE!" ELSE PRINT"You are still on
time"
2690 PRINT"That's another"TU"points"
2700 PRINT:PRINT"Your total score, so far, is"SC
2710 FOR A=1 TO 14:FOR B=1 TO 25:M(B,A)=0:F(B,A)=0:NEXT B,A
2720 LV=LV+1
2730 GOSUB 4090
2740 PRINT:PRINT"Press any key to continue":EXEC 44539:A$=INKEY$
2750 HSCREEN 2
2760 GOTO 70
3000 REM BLASTED A MINE!
3010 HX=H*12-27:IF HX<0 THEN HX=0
3020 VX=V*12-27:IF VX<0 THEN VX=0
3030 PLAY"T64O1"
```

```
3035 P$="EEDEECFCFC"
3040 FOR V=16 TO 31 STEP 6
3042 HPUT(HX,VX)-(HX+20,VX+20),9,PSET
3043 PLAY "V"+STR$(V)+P$
3044 HPUT(HX,VX)-(HX+20,VX+20),9,NOT
3045 NEXT V
3050 FOR V=31 TO 1 STEP -4
3055 HPUT(HX,VX)-(HX+20,VX+20),9,NOT
3065 HPUT(HX,VX)-(HX+20,VX+20),9,PSET
3067 PLAY"V"+STR$(V)+P$
3070 NEXT V
3080 FOR Y=2 TO 13:FOR X=2 TO 24
3090 IF M(X,Y)=5 THEN HPUT(X*12-23,Y*12-23)-(X*12-15,Y*12-16),5
3100 NEXT X,Y
3110 EXEC 44539
3130 JT=1
3140 GOSUB 2500
3250 IF JT=0 AND TH>-1 THEN PRINT"And you are"TH"hs"TM"min early!":PRINT"That
gives you another"TU"points":SC=SC+TU
3255 IF JT=1 OR TH<0 THEN PRINT"Unfortunately, you have failed
the":PRINT"mission";:IF SC>1 THEN PRINT" and that's not good":PRINT"for your
score":SC=INT(SC/2)
3260 PRINT:PRINT"The final score is"SC
3265 IF SC<=HS THEN PRINT"The highest score is"HS
3270 IF SC>HS THEN PRINT"That means that YOU have the ":ATTR
4,4,B,U:PRINT"HIGHEST SCORE!";:ATTR 4,4:HS=SC
3290 PRINT:PRINT"Do you want to play again? (Y/N)"
3300 A$=INKEY$
3310 IF A$="N" OR A$="n" THEN POKE 65496,0:END
3320 IF A$<>"Y" AND A$<>"y" THEN GOTO 3300
3325 CLS:PRINT"Please, give me a second..."
3330 SC=0:JT=0
3340 FOR A=1 TO 14:FOR B=1 TO 25:M(B,A)=0:F(B,A)=0:NEXT B,A
3350 GOSUB 4080:HSCREEN 2:GOTO 70
4000 REM INIZIALIZE VARIABLES
4010 FOR A=1 TO 15:PALETTE A,2:NEXT A
4020 HSCREEN 2
4030 HCOLOR 0
4040 HCLS 1
4050 HPRINT(10,10),"Generating graphics"
4060 R=RND(-TIMER)
4070 DIM M(25,14),F(25,14) ' M IS MAP, F IS FLAGS
4080 LV=1:TM=0:TH=6
4090 FOR A=1 TO 10+LV ' SET ROCKS
4100 X=RND(23)+1:Y=RND(12)+1
4110 M(X,Y)=2
4120 NEXT A
4130 SV=RND(12)+1:FV=RND(12)+1 ' START AND FINISH OF ROAD
4140 TV=SV
4150 M(2,SV)=1:M(24,FV)=1
4160 RH=1:SH=2
```

```
4170 IF SH=24 THEN RH=0 : IF SV>FV THEN RV=-1:GOTO 4200 ELSE RV=0:GOTO
4200
4180 IF SV=FV THEN RV=0:RH=1:GOTO 4210
4190 IF RND(3)=1 THEN RH=-NOT(-RH):IF RH=0 THEN IF SV>FV THEN RV=-1 ELSE
RV=1 ELSE RV=0
4200 IF SV=FV AND SH=24 THEN RETURN
4210 SH=SH+RH:SV=SV+RV:M(SH,SV)=1
4220 GOTO 4170
4240 RETURN
4500 REM SETUP GRAPHICS
4520 HCOLOR 5,2
4530 HCOLOR 2:HLINE(100,100)-(111,111),PSET,B
4540 FOR A=1 TO 15:HSET(100+RND(10),100+RND(10),2):NEXT A
4550 HCOLOR 3:HLINE(200,100)-(211,111),PSET,BF
4560 FOR H=200 TO 211 STEP 3:HSET(H,100,2):HSET(H,111,2):NEXT H
4570 FOR V=100 TO 111 STEP 3:HSET(200,V,2):HSET(211,V,2):NEXT V
4575 FOR A=1 TO 35:HSET(200+RND(10),100+RND(10),2):NEXT A
4580 HCOLOR 4:HLINE(150,100)-(161,111),PSET,BF
4590 HCOLOR 2:HLINE(150,100)-(161,111),PSET,B
4600 FOR A=1 TO 15:HSET(150+RND(10),100+RND(10),2):NEXT A
4610 HCIRCLE(155,155),5,6:HPAINT(155,155),8,6
4620 HCIRCLE(155,155),1,7
4630 HCOLOR 2:HLINE(250,100)-(261,111),PSET,B
4640 HDRAW"C7BM251,101R10D9L10U8R9D7L6NE7L2NE8U1NE7U7"
4650 HCOLOR 10:HLINE(305,105)-(308,108),PSET,BF
4660 HLINE(307,106)-(311,110),PSET:HLINE(306,107)-
(310,111),PSET:HLINE(306,106)-(311,111),PSET
4670 HCOLOR 8:HLINE(120,100)-(125,106),PSET,B
4680 HLINE(127,101)-(130,105),PSET,B
4690 HCOLOR 6:HLINE(121,101)-(125,105),PSET,BF
4700 HLINE(127,102)-(130,104),PSET,BF
4710 HCOLOR 3:HLINE(126,101)-(128,105),PSET,BF
4720 ' EXPLOSION
4730 FOR R=10 TO 5 STEP -4:HCIRCLE(50,50),R,5
4740 HPAINT(50,50),7,5:NEXT R
4750 FOR R=9 TO 5 STEP -2:HCIRCLE(50,50),R,2:NEXT R
4760 HCIRCLE(50,50),6,2:HPAINT (50,50),2,2
4770 HCIRCLE(50,50),3,9:HCIRCLE(50,50),1,9
4780 FOR A=1 TO 8:HBUFF A,99:NEXT A
4790 HGET(100,100)-(111,111),1
4800 HGET(150,100)-(161,111),2
4810 HGET(200,100)-(211,111),3
4820 HGET(250,100)-(261,111),4
4830 HGET(150,151)-(159,159),5
4840 HGET(306,106)-(311,111),6
4850 HGET(120,100)-(130,106),8
4860 HBUFF 9,300
4870 HGET(40,40)-(60,60),9
4880 N$(1)="DGE2D7NL2NR2"
4890 N$(2)="LNGR3FD2GLGLGDR5"
4900 N$(3)="LR5DG2F2DGL3H"
```

```
4910 N$(4)="NRGDGDR5LNU4D3"
4920 N$(5)="NR3L2D2FR3FD2GL3H"
4930 N$(6)="NR2G2D4FR3EUHL4"
4940 N$(7)="NL2R3DG5D"
4950 N$(0)="BD2NR2DGDGHUH"
4955 HCLS 2
4960 RETURN
5000 REM SHOW MAP
5005 HCOLOR 5:A$="Level:"+STR$(LV):HPRINT(0,18),A$
5010 A$="Score:"+STR$(SC):HPRINT(20,18),A$
5015 A$="Mines in this level:"+STR$(MR):HPRINT(0,19),A$
5020 HPRINT(35,4),"Time":HPRINT(35,5),"Left"
5025 HLINE(100,115)-(225,130),PSET,B:HPRINT(13,15),"Downloading map"
5030 HPRINT(34,7),TH:HPRINT(36,7),TM:HPRINT(36,7),":"
5040 FOR Y=2 TO 13:FOR X=2 TO 24
5050 HPUT(X*12-24,Y*12-24)-(X*12-13,Y*12-13),M(X,Y)+1
5060 NEXT X,Y
5070 RETURN
5080 REM SET MINES
5090 FOR A=1 TO MR
5100 FOR LO=1 TO 2 STEP 0
5110 X=RND(23)+1:Y=RND(12)+1
5120 IF M(X,Y)<>5 THEN LO=2
5130 NEXT LO
5140 IF (X=2 AND Y=TV) OR (X=24 AND Y=FV) THEN 5100 ' NO MINES AT START
OR END OF ROAD
5150 M(X,Y)=5 ' SET A MINE
5160 NEXT A
5170 RETURN
6000 REM START NEW LEVEL
6010 A$="Level:"+STR$(LV):HPRINT (0,18),A$
6020 A$="Score:"+STR$(SC):HPRINT(20,18),A$
6030 A$="Mines in this level:"+STR$(MR):HPRINT(0,19),A$
6040 GOTO 200
7000 REM INTRO
7010 WIDTH 40:CLS:PALETTE 1,56:ATTR 0,1,U
7020 LOCATE 0,23
7030 PRINT"o ";
7040 READ T$
7050 IF T$<>"1" THEN 7090
7060 A$=INKEY$:IF A$="Y" THEN 7140
7070 IF A$="N" THEN 7160
7080 GOTO 7060
7090 IF T$="X" THEN EXEC 44539:GOTO 40
7100 FOR CH=1 TO LEN(T$):PRINTMID$(T$,CH,1);
7110 IF CH/2 = INT(CH/2) THEN PLAY"T32O1AP32"
7120 IF INKEY$<>"" THEN 7160
7130 NEXT CH
7140 LOCATE 39,23:PRINT"o";:PLAY"T32O1;ACC"
7150 GOTO 7030
7160 READ T$:IF T$<>"X" THEN 7160
```

```
7170 GOTO 40
7180 DATA "","","","DEPLOYMENT NOTICE","","Company B","108th Engineers
Battalion.","","The unit is to be deployed","immediately in support of UN relief","convoys."
7190 DATA "The main mission is the clean up of","routes to allow fast access
of","essential suplies.","The secondary mission is to locate","any mines in the area, to
facilitate"
7200 DATA "future deployments and prevent","civilian casualties.","The distance to the
refugee's camp","is 100 Km, and must be reached in","less than 6 hs to be of any use."
7210 DATA"If the minesweeeping equipment is","destroyed by enemy action,
the","convoy will abort the mission.","Do you require further instructions?","(Y/N)","1"
7220 DATA "","","The minesweeper will indicate how","many mines are located in the
area","surrounding it's location. Itis","activated either with the red button"
7230 DATA "or the <ENTER> key. Once a mine has","been located, proceed to mark
it","using the black button or the","<SPACE> key.","The beginning and the end of
the","road are pre-designated checkpoints","and have already been declared safe."
7240 DATA "Once a safe path has been cleared,","signal the convoy to start, using","the
<D> key, and proceed to guide it","with the cursor keys. Try to keep it","on the road as
much as possible,"
7250 DATA "since going off-road, or even worst,","over the muddy areas, is
time","consuming.","","Press any key to proceed","X"
7260 DATA 55,52,28,48,0,18,32,17,63,12
10000 ATTR 0,0:WIDTH 80:PALETTE RGB
```

One liner by Richard Kelley

To use, move the cursor around with the joystick, and hold down the Fire button to "draw". The cursor will wrap around to other side of the screen when you go beyond its boundaries.

Now the $50 million question - why the two "B=B+((B>1535)*512)" statements in a row? Well, when you move "northwest", it's adding over 1000 to its coordinates in each frame.

That deserves an explanation. You see, when you move upwards, the code is adding 480 to the coordinates instead of just subtracting 32. When the code moves the cursor left, it's actually adding 511 to the coordinates instead of just subtracting one.

What in the world is the advantage to this? Well, when the code is done this way, you only have to "correct" the coordinates when is it's over the number "X", rather than dealing with two conditions where the code has to look for the variable being under one value (and correcting it one way), or being over another value (and correcting it a second way). When you deal with the 32K barrier, this could be important.

```
10 A=1263:B=A:FORJ=-1TO0:C=JOYSTK(0):D=JOYSTK(1):E=-(C=0)*511:
F=-(C=63):G=-(D=0)*480:H=-(D=63)*32:I=144+(PEEK(339)=255):
POKE339,255:B=B+E+F+G+H:B=B+((B>1535)*512):B=B+((B>1535)*512):
POKEA,I:POKEB,144:A=B:J=INKEY$="":NEXT
20 END:RUN
```

KORONIS RIFT
SOFTWARE REVIEW
****

By Nickolas Marentes (CoCo3 Commercial Programmer)

(With Apologies to Nick Marentes for digging this one up)
(He wrote this at the end of 1988!)

GAME SCENARIO:

You are a 'Techno-Scavenger', one who makes a living searching for abandoned technological systems. From galaxy to galaxy you roam collecting technological "junk" for resale. Life's tuff!
Suddenly, your instruments spring to life like they have never done so before. Radiation flux levels in the ten thousand range! Closer examination reveals that you have stumbled across the fabled "Koronis Rift". An ancient test ground for the most powerful weapons.
On descending into the rifts, you drive your Surface Rover across the planet surface, tracking down abandoned "Hulks". Once found, you send you Repo-Tech droid to loot it and return with any useful systems. You must analyze each module, working out what each module is, how much energy it has, how much it's worth and determine if you can put it to use in your own Surface Rover for increased capabilities.
Beware though, the planet is patrolled by Guardian Saucers which you must destroy or evade.

GAME PACKAGING:

The game comes very well presented in a professionally presented, colour box. Inside is a small well written booklet, a command card and a disk. Koronis Rift has been available for the Atari 400/800 and Commodore 64 computers before finally being released for the CoCo3. The documentation is designed for each computer with the command card being specific for the host system.

PROGRAM DEVELOPMENT:

The program is brought out by EPYX, a large U.S. software house who has mainly been supporting the Commodore 64 computer. The program is actually developed by a team called LUCASFILM LTD. which is the home computer software division of George Lucas's (Star Wars fame) special effects and film company. So, as you can see, Koronis Rift is no "backyard job". The CoCo3 version programmers are Edwin Rosenzweig and Ken Rogoway. The program runs under the CoCo3's OS-9 Level 2 system.

POSITIVE POINTS:

Good use of the OS-9 environment. Good use of the CoCo3's graphics (great title page!) making use of colour shades for added depth. Great game scenario of which much of the game terminology are trademarks of Lucasfilm Ltd.

NEGATIVE POINTS:

Sound is a bit on the minus side, especially when compared with the Atari and Commodore versions but this is a speed limitation when running under OS-9 and the CoCo3's lack of a dedicated sound chip.

CLOSING COMMENTS:

Great program! The program is good value for money when one considers the professionalism of packaging, depth of script and development of special Fractal algorithms for the planet terrain. One very unfortunate thing though, according to Tandy here in Australia, Koronis Rift is now a discontinued product! I for one am shocked that such good software, which hasn't had the chance to be marketed properly is being given the boot.
I can think of other programs which Tandy are selling which I feel should be discontinued instead of this one (stay tuned for a future episode!). So, if you're planning on getting a new CoCo3 game, grab Koronis Rift before they completely disappear.

AVAILABLE: Tandy Electronics Stores
PRICE : $52.46 (Discontinued price)
REQUIRES : 128K CoCo3 + Disk Drive

LPOKE.BAS (for the coco-3)
by Rodney
this program patches the LPEEK and LPOKE commands
to expand their access range from 512 K to 2 Megs.
for coco3 or emulator with expanded memory range.

```
10READA$:IFA$<>""THENIFLEFT$(A$,1)="@"THENA=VAL("&H"+MID$(A$,2)):
```

```
GOTO10ELSEPOKEA,VAL("&H"+A$):A=A+1:GOTO10:
DATA@E54E,12,12,@E563,21,@E579,12,12,@E593,95,@E596,12,4D,35,82,@E5AF,20,E6,:
'EXTEND LPEEK/LPOKE RANGE TO 2MEG20FORA=248TO0STEP-8:
LPOKEA*8192+512,A:NEXT:PRINT"THIS COCO-3HAS"LPEEK(248*8192+512)*8+64"K"
```

drive commands

? FREE(0) - Print to screen how many free granules on disk in dirve 0 (68 GRANUALES TOTAL ON 35 TRACK)
DIR 0 - Print to screen Directory of disk in drive 0
DSKINI 0 - Format disk in drive 0 (If you create a .dsk image in MESS, it's already preformatted)
BACKUP 0 TO 1 - COPY THE WHOLE OF DISK IN DRIVE 0 TO DRIVE 1
COPY"FILENAME.BIN:0"TO"FILENAME.BIN:1" - COPIES FILENAME.BIN FROM DISK IN DRIVE 0 TO DISK IN DRIVE1

If you find a disk that seems blank, or gives you an ?FS ERROR, try typing DOS. This is for OS-9 BOOT.

LOADM"FILENAME - Load into memory a ML file (.BIN)
SAVEM"FILENAME.BIN",START,END,EXEC
LOAD"FILENAME - Load a BASIC file from the disk to memory cassette versions are CLOADM, CLOAD, CSAVE, CSAVEM - MESS has virtual cassettes and ROM paks too!

GIMETEST.BAS (for the coco-3)
quickie description:
I originally wrote this program to measure the GIME's video timing which is mostly undocumented and different from the coco1 or coco2.
Once I had my answers, i noticed that the program could also detect the GIME chip version based on differences in how the timer works. (ref: Sock Master's GIME page, see TIMER register note -FYI)
Several revisions later, I boiled it down to this which I converted into a 1-liner to make it more "streamlined" and to see if I could. <wink>

It works by using the GIME's timer to count scanlines for 60 "ticks" of BASIC's timer clock, then examines the measured count to decide which version of the GIME is installed, and then calculates the video frame rate and actual number of scanlines per frame.

```
10DATA"B7FFD9CE0112E641E14127FCCCFFC4EDC48EFF936F1E8620A784CC0001E702A7
01108E0001E6848620A584270231216DC426F410BF03FEB7FFD839":READA$:
FORI=1TOLEN(A$)STEP2:D=VAL("&H"+MID$(A$,I,2)):POKE3584+I/2,D:NEXT20EXEC3584:
D=256*PEEK(1022)+PEEK(1023):U=1+(D>7085):F=INT(D*(U+2)/60):
D=D+U*2885:T=60+10*(D>8655):PRINT1987-U"GIME"T"HZ"F"SCANLINES"
```

COCO 3 COLORS FOR COCO 1 & 2 GAMES

~ PART ONE OF THREE ~

Written by Jason Law
Email: jmlaw@iprimus.com.au

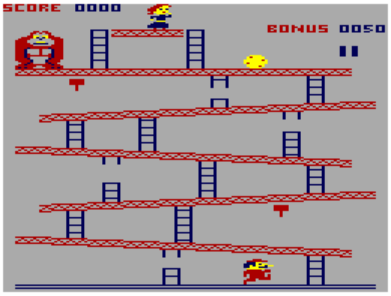
Skill Level Required: Beginner

Do you have some CoCo 1 & 2 games that you would play again if only they were better somehow?

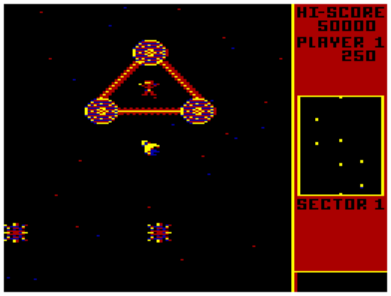
How about using your own custom colors while playing them on the CoCo3?!

Speed Racer

Lunar Rover Patrol

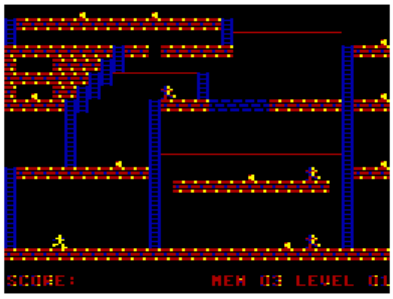


Monkey Kong



Draconian

Pooyan



Gold Runner

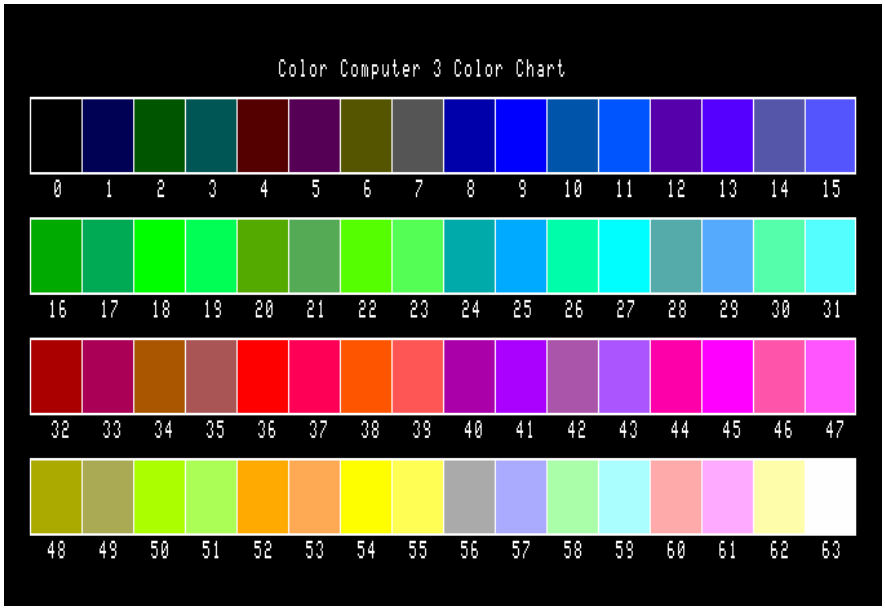
Yep, that's right, you can replace any of the standard CoCo 1 & 2 colors with any of the 64 colors available on the CoCo 3. The easiest way to do this

is by selecting the color you want and using the BASIC PALETTE command to store the color value in the equivalent palette register. The game can then be loaded and executed with your custom colors still stored in the palette registers.

This article is the first in a series of three. This first article will teach you how to set palette registers, and which registers to set. The second article will show you how to change both text and graphics modes by editing the game's binary file with a hex editor. The third will then teach you how to store all your colors within the game file. The second article will be intended for users with an intermediate skill level, and the third for more advanced users.

For those who have done little or no BASIC programming, the CoCo 3 has 16 palette registers that BASIC numbers 0 to 15. These registers store color values (0-63) that are used on the text and graphics screens. That is, from the 64 colors available, 16 colors can be on the palette (think of an artist's palette) at one time.

This image shows all the colors of the CoCo3. This image was not produced entirely on the CoCo 3, the colors were added to the image on my PC. I created it to be used as a tool for choosing your colors.



Colors shown are those used by the M.E.S.S. emulator for the CoCo 3 - www.mess.org

The table below describes how the CoCo 1 & 2 colors have been assigned to CoCo 3 palette registers. BASIC has assigned each register (area of memory) a register number, and refers to it by its number.

PALETTE REGISTER	REGISTER NUMBER	COCO 1 & 2 TEXT SCREEN	COCO 1 GRAPHICS SCREENS	COCO 2 GRAPHICS SCREENS
&HFFB0	0	CLS1 -GREEN		PMODE 1 & 3:SCREEN 1,0 - GREEN
&HFFB1	1	CLS2 - YELLOW		PMODE 1 & 3:SCREEN 1,0 - YELLOW
&HFFB2	2	CLS3 - BLUE		PMODE 1 & 3:SCREEN 1,0 - BLUE
&HFFB3	3	CLS4 - RED		PMODE 1 & 3:SCREEN 1,0 - RED
&HFFB4	4	CLS5 - BUFF		PMODE 1 & 3:SCREEN 1,1 - BUFF
&HFFB5	5	CLS6 - CYAN		PMODE 1 & 3:SCREEN 1,1 - CYAN
&HFFB6	6	CLS7 - MAGENTA		PMODE 1 & 3:SCREEN 1,1 - MAGENTA
&HFFB7	7	CLS8 - ORANGE		PMODE 1 & 3:SCREEN 1,1 - ORANGE
&HFFB8	8	CLS0 - BLACK	PMODE 2 & 4: SCREEN 1,0 BACK	PMODE 2 & 4: SCREEN 1,0 BACK
&HFFB9	9		PMODE 2 & 4: SCREEN 1,0 FORE	PMODE 2 & 4: SCREEN 1,0 FORE
&HFFBA	10		PMODE 2 & 4: SCREEN 1,1 BACK	PMODE 2 & 4: SCREEN 1,1 BACK
&HFFBB	11		PMODE 2 & 4: SCREEN 1,1 FORE	PMODE 2 & 4: SCREEN 1,1 FORE
&HFFBC	12	BLACK - FORE		
&HFFBD	13	GREEN - BACK		
&HFFBE	14	BLACK - FORE		
&HFFBF	15	ORANGE - BACK		

For games that use the equivalent of PMODE 2 or 4, we can use any two colors from the 64 available. For PMODE 1 or 3 equivalent games, we can use any 4 colors from the 64 available. This can be done for most CoCo 1 & 2 games. For beginners, and those who may have not done any BASIC programming for a while, here's what PMODE 1/3 & 2/4 equivalent screens look like (with no artifacting):

PMODE 1 & 3 : SCREEN 1,0

PMODE 1 & 3 : SCREEN 1,1

PMODE 2 & 4 : SCREEN 1,0 PMODE 2 & 4 : SCREEN 1,1

Note: This is not available for ROM paks which auto-start, without first insulating the auto-start pin. But that's beyond the scope of this article.

The only BASIC command we need is the PALETTE. The format of which is:

PALETTE R,C *where R is the register number (0-15) and C is the color value (0-63).*

So lets write a short BASIC program to set the colors we want in the palette registers. In this demonstration I'll use Lunar Rover Patrol, pictured above (PMODE3:SCREEN1,0).

STEPS:

1. Look at the table to see what register numbers to use. In this case, we want to change register numbers 0-3.
2. For this game, we first decide we want the blue sky to be black, after all, we are in space! Looking at the table, the default blue corresponds to palette register number 2, so our BASIC command would be PALETTE 2,0 where 2 is the register number, and 0 the color value for black.
3. Next color… well, looking at the Earth, we want to change the color of the oceans. They are now green, so again, looking at the table, default green corresponds to palette register 0. We want to make them blue, so lets try PALETTE 0,8
4. Now Earth's continents, from the image we see they are default yellow, which corresponds to palette register 1, so lets try PALETTE 1, 52 (orange/brown)
5. And the last color, the ground. Well in this case it would make most sense to make it grey, we are on the moon after all! But when deciding on a color, we have to consider what will it look like with the other colors, *and* what else is it used for. So the ground is red, that corresponds to palette register 3. Lets keep it red, but make it a little darker, PALETTE 3,32
6. We have our four colors selected, all we need to do now is write a BASIC program to set the registers with our chosen colors. We can then save this program to disk (or tape) so we don't have to type in the commands each time. Try to use a meaningful name that reflects which game it's for, e.g. LUNARCC3.BAS.
7. After you have saved your program (see below), RUN it and test the new colors. It may take a lot of trial and error at first. Hang in there, you'll get it.

Here's a BASIC program to set the colors we've chosen for Lunar Rover Patrol:

```
10 PALETTE 0,8          '** REGISTER 0, COLOR VALUE 8 - BLUE
20 PALETTE 1,52         '** REGISTER 1, COLOR VALUE 52 – YELLOW/BROWN
30 PALETTE 2,0          '** REGISTER 2, COLOR VALUE 0 - BLACK
```

```
40 PALETTE 3,32                ‘** REGISTER 3, COLOR VALUE
                                  32 – MEDIUM INTENSITY RED
50 LOADM”LUN-ROV
```

If you load Lunar Rover Patrol from cassette, change line 50 to CLOADM Your game binary may be named something else. If so, change that after the quotation mark in line 50.

Make sure you’ve saved your program if you wish to keep it. You will need to run this program each time before you play the game.

When you RUN your program, the game will load and you may receive a “?SN ERROR” with no line number. This happens when the game is loaded into the area of memory where your BASIC program is stored. This is quite normal, especially for large games. Once the game has loaded, type EXEC and press [ENTER].

That’s it! It’s so simple, and yet it can improve the feel of a game dramatically!

Some final notes:

40 Pressing reset will restore the palette register to the default colors values.

41 Turning of the computer will also restore the default color values.

42 Most programs (not just games) that use the 32 column text screen and/or the PMODE equivalent screens can have their colors changed. For example, PALETTE12,63:PALETTE13,3 will give you white text on a blue/grey background while in WIDTH 32 mode. It works for all alpha-numeric characters while in this mode too!

You may be thinking “Hey! My border is still green, where’s the palette register for that??? Huh???!!!”. Well, unfortunately, the border color isn’t linked to any palette register. You have the choice of green or white, depending on the screen mode that’s used. I’ll show you how to change that and more in the next article. Until then, happy coloring!

ERROR CODES! What do they mean!!

AO *Attempt to Open a file that is already open. If you press RESET during cassette I/O , you will get this message. Turn the computer off and try again.*

BS *Bad Subscript. The subscripts in an array are out of range. For Example, if you have a(12) in your program without a preceding DIM line that dimensions array A for 12 or more elements, you will get this error. Use DIM to dimension the array.*

CN *Can't Continue. If you use the CONT command and you're at the END of program or in the other non-continue situations, you will get this error.*

DD *Attempt to Redimension an Array. You can dimension an array only once. For example you can't have DIM A(12) and DIM A(50) in the same program.*

DN *Device Number Error. You may use only three device numbers with OPEN, CLOSE, PRINT, or INPUT – 0,-1,or -2. If you use another number you'll get this error.*

DS *Direct Statement. The data file contains a direct statement. This error can be caused by attempting to CLOAD a data file.*

/0 *Division by Zero. It is impossible to divide by zero. Even for computers*

FC *Illegal Function Call. This error occurs when you use a parameter (numeric or variable) with a BASIC word that is out of range. For example, PLAY":" causes this error.*

FD *Bad File Data. This error occurs when you PRINT data to a file or INPUT data from the file, using the wrong type of variable for the corresponding data. For example, INPUT #-1,A. when the data in the file OPEN for INPUT(I)*

ID *Illegal Direct Statement. For Example, you can use INPUT only as a line in a program, not as a command line.*

HP *High-Resolution Print Error. Attempt to execute a high resolution text function on a low resolution text screen or to execute a low resolution text function on a high resolution text screen.*

HR *Hi Resolution Graphics Error. Attempt to execute a high resolution graphics statement without having first setting up a high resolution screen with the HSCREEN statement.*

IE *Input Past End of File. Use EOF to check to see when you've reached the end of the file; when you have, CLOSE the file.*

IO *Input/Output Error. This error is often caused by trying to input a program or data file from bad tape.*

LS *Sting Too Long. A string may contain only 255 characters.*

NF *NEXT without FOR. NEXT is being used without a FOR statement. This error also occurs when you havae the NEXT lines reversed in a nested loop.*

NO *File Not Open. You can't input or output data to a file until you have OPENed it.*

OD *Out of Data. A READ was executed with insufficient DATA for it to READ. A DATA statement may have been left out of the program.*

OM *Out of Memory. All available memory has been used or reserved.*

OS *Out of String Space. There in snot enough space in memory to do your string operations. You may be able to CLEAR more space.*

OV *Overflow. The number is too large for the computer to handle.*

RG *Return without GOSUB. A RETURN line was encountered without a prior COSUB.*

SN *Syntax Error. This could result from a misspelled command, incorrect punctuation, open parentheses, or an illegal character. Retype the program line or command.*

ST *String Formula Too Complex. A string operation was too complex to handle. Break it into shorter steps.*

TM *Type Mismatch. This occurs when you try to assign numeric data to a string variable or a sting data to a numeric variable.*

UL *Undefined Line. The program contains a GOTO, GOSUB, or other branching line that asks the computer to go to a nonexistent line number.*

Number	Code
0	NF
1	SN
2	RG
3	OD
4	FC
5	OV
6	OM
7	UL
8	BS
9	DD
10	/0
11	ID
12	TM
13	OS
14	LS
15	ST
16	CN
17	FD
18	AO
19	DN
20	IO
21	FM
22	NO
23	IE
24	HP
25	DS
38	HR

My CoCo Hardware
Brian Palmer "Briza"

Here Fellow Coconuts, Here is my Entire Collection to date, Taking me just under 20 years to amass this amount of stuff, But always on the look out for more, Can't half tell I'm a Coconut Fanatic, I've Had other coco users say to me, when they drop in the www.coco3.com , Coco Café Chatroom, Do I live in Here, Well what I say is this, Bloody ove, In the real world I live in Broken Hill, Australia, But in the Coco Virtual world, I live and Breath Coco 1,2 and 3 topics.
What more can I say? Now Back to the Main Reason for this Story, My Collection. Here goes, If you see I 'm missing something, then send it my way.

3 – 512k Coco3's
1- 128k coco3
6 FDC's
4 40 track DSDD
3 3.5 720k drives
3 Cm8 Tandy Monitors
4 MPI's
8 RLL/MFM 8 bit controllers
10 Hard Drive Adapters
6 Hard drives ranging from 20-85 Meg
1 RS232 Card
1 Tandy Modem Pak
1 Originall Colorware Pak for CocoMax 3
2 Home made baud rate printer cards
1 106 DMP printer
1 Tp 10 color printer
1 Tandy full size color printer
2 5 ¼ 80 track drives Teac Brand
1 EProm burner
4 1.2 MB pc drives used for coco to pc transfer
1 Tandy orchestra 90 pak
1 Tandy speech pak
1 Digi Sector
Plus various other hardware

Software

Sundog systems
Kyum Gai To Be Ninja RSDOS/OS9
Contra
Quest for Thelda
Sinnistar
Halls of The Kings 1,2,3
The Quest for the Starlord
Warrior King

- Crystal City
- Zenix
- Soundtrax
- White Fire of Eternity
- Dragon Blade
- Kung Fu Dude
- Photon
- Graf Express 1.0

Eversoft Games LTD
- La Belle Lucie Solitaire

Rick's Computer Enterprise
- CC3 Flags
- Vocab
- Master Dir
- Puzzles
- Tetra
- Master Directory 3
- The Rainbow Indexes
- NIB Compressor/ Ricks coco Gallery
- Gallery Maker
- Steve Ricketts Pic's

Owl-Ware
- Window Writer 1.2

Zebra Systems
- CoCo Graphics Designer Plus
- Label Designer
- Picture Disks 1-6
- Fonts Disks A and B
- Border Disk 1
- First Prize

SRB
- Z-89
- Marty's Nightmare
- Bash
- Warp Fighter 3D

Oblique Triad
- Studio Works
- Those Darn Marbles
- 7^{th} Link
- Caladuril 1,2

JWT Enterprises
- Optimize Utility Set 1

Microcom Software
- Color Schematics Designer
- RGB Patch
- Word Power 3.1 , 3.3
- Simply Better
- 512k Basic

Diecom Software Inc
- Iron Forest

- Medievel Madness
- Gantelet 1,2
- Grand Prix Challenge,

Diecom
- Xenion
- Marble Maze
- Paper Route
- F16 Assault
- Mission Russian Assault
- Gates of Delirium
- Gold Runner
- Bouncing Boulders
- Karate
- Wrestle Maniac
- Knockout
- cer-Comp
- Cbasic3
- Window Master V3.0
- EDT/ASM III
- The Source
- The Source 3 for the coco3
- CoCo3 Tool Kit

Colorware
- Max 10
- CoCo Max3
- CoComax 3
- CoCoPro
- Newsart09
- Presto Partner
- Wpshell
- Multi-Menu
- Ezgen 1.09
- File System Repack
- The Zapper
- Mvcanvas
- Data Windows

The Sportsware

Barbarian Quest

Wargame Designer

Super Disk

Firespire

Gnome Quest

Burke and Burke
- Pertascii
- Ezgen 1.09
- M1 disk Doctor

Coless Computer Design
- CIII Pages

Tom Mix Software
- P51 Mustang
- Worlds of Flight

SR-71
Wizards Den
(I have every other game They marketed, there are too many to list here)
Sugar Software
The CoCo Calligrapher
Michtron
Speed Racer
Time Bandit
Cash Man
VIP Technologies
VIP Integrated Library
VIP Writer
VIP Speller
VIP Database
VIP Terminal
Computer Ware
Magic of Zanth
Wild West
Nuke the Love Boat
Return of Juniors Revenge
Saguaro Software
Marooned
(plus others they have marketed)
Ark Royal Games
Company Commander
Fire One
Mark Data
Trek Boer
Calixto Island
Shenanigans
Tuts Tomb
Sea Search
Black Sanctum
Novasoft
Blackbeards Island
BrewMaster
Moneyopoly
Battle Stations
Vegas Games
Colorcar
Jr&JR Software
Revenge of The Mutant Miners
Buried Buxxs 2
Three C's Project
Power Stones of Ard 1, 2
Nick Marentas
Rupert
Donut Dilema
Space Intruders
(and his last video to coco 2 video picture player plus other games)
Treasury Pack 1,2

Space Pac
Wizards Castle
Pyramix
Mental Freedom
Ados3
EXt Ados3
Smash for Os-9
Arkanoid on disk
Predator on disk
Rad warrior on disk
Castle of Thorrag on disk
Robocop on disk
Demon Attack on disk
Kings Quest 3
Liesure Suit Larry
Koronis Rift
Rescue on Fractulas
Thexder
Springster
Soko Ban
Shanghai
Bioshphere
Wish Bringer
GFL Football2
Silpheed on disk
Pinball Factory
8 Ball
Demon Seed
Monster Mash
Slots and Card
MultiBars
Video Cards and Keno
War of the Worlds
Maui Vice
Sam Diamond PI
Tax Accountant 3
Sands of Egypt (thanks Tony J)
Plus all of the Tandy os9 Level 2 Software they sold
Home pack
Hounds of Hell
Black Jack Royale
Night of the Living Dead
Hitch Hikers guide to the Galaxy
Planet Fall
Enchanter
Infidel
Ballyhood
Wish Bringer
Magic by Carl England
Zone runner
Pixel Blaster

Plantet Engine
Curilean Cruiser
Major Istar
Sam Sleuth
Original Demo diskd from Tandy electronics for the coco3
Inter Stellar Trader
CC3 Fax

I have too many to list, so this will have to do for now. Just say I have about 2,000 disks full of coco 1,2 and 3 Games and Utilities.

Games and Games Designers I am still looking for Include;
Overlord
Jubilex
Space Ace
Bike Jump
OS-9 4D Chess
Mini Golf by JT Rawlinson
Cave hunt by Rawlinson
Zandar
Frogday
Revelation
Black Jack III 512K
and Slake Freeman and the invasion of Mutalnt LInoleum Miners by Robert Offerman
Graphics 25 by Jeremy Spiller
Armchair Admiral
Tazman
The Champion
Paladin's Legecy

Really I would like any game that is needed to complete my collection.
Even a Demo of the game Defendroid by Oblique Triad would be good.

Here’s the os-9 stuff I have

Pixel Blaster
Planet Engine
Biosphere
Multi Menu
WpShell
Presto Partner
The Sapper
Smash
Kyum Gai
RBWguide
ZClock
Rocky Boots
There are just too many to list, but that is a rough idea for ya
feel free to ask me if i have anything you might be looking for.

Here we are again at the end of another delayed newsletter. Now it will have a new title, instead of a newsletter I am changing it to an E-Zine, due to its considerable growth. I want to thank everyone who has helped so much with this issue. I want to ask everyone to pray for Lonnie Falks family in whatever way you pray. Times have been rough for a lot of us lately, but I know we can enjoy simple pleasures such as relaxing in our chairs as we read this publication, and enjoy seeing all your hard work in a combined area! So sit back and take a load off and start thinking about your next contribution to the E-Zine so that we may all enjoy yet another issue! Please give me some feed back via email to let me know what I did right or wrong with this or past issues! Feedback is worth gold to me so don't be shy y'all. Huuuuuggggsssss and enjoy this one guys.

Sincerely ,

Mary Kramer