YESTERDAYS NEWS

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TIPS FROM THE TIGERCUB

by Jim Peterson

LET'S ROUND UP THE MAVERICKS!

A maverick, for the information of you tenderfeet, is a young Texas critter which has lost its mama. There are over a million of them hiding in the closets of America, and I think it's time for a roundup!

There are perhaps 200, possibly 300, TI user groups in the United States and elsewhere in the world. A few boast of several hundred members, but some have no more than a dozen, and I doubt that the average is more than 50 users actually paying dues and attending meetings. That computes to at most 15,000 members of the "organized" TI world. Of course, there are many others who keep in contact by subscribing to those magazines which support the TI, and still others who are kept up to date on new developments by the catalogs from the big mail order houses. Still, no matter how you compute it, there are certainly well over a million owners of the TI-99/4A who have no way of knowing that our computer is still alive and well.

These people have read that Texas Instruments abandoned the computer. They have seen the supplies of hardware and software disappear from the big retail stores. Many of them bought their computer during the final suicide sales, therefore never got on the mailing list for the Texas Instrument newsletter.

And yet, relatively few of the TI-99/4A are showing up in the classified ads and in the garage sales. A recent national survey found that the TI-99/4A was owned by more people than any computer except the Commodore.

True, many of these owners are only interested in plugging in a module and playing a game. But some have a deeper interest - and even five percent of a million is an awful lot of people!

When I bought my TI, in March of 1982, I searched in vain through the articles and ads of every magazine on the newsstand, for anything relating to my computer. It almost seemed that there was a conspiracy of silence. I had taught myself to program, and written dozens of programs, before I finally made contact with the TI world. I was once a maverick, and I can sympathize with those who are mavericks now.

INSIDE INFORMATION

Is your user group dwindling away, as some of your members move on to bigger but not necessarily better computers, while others become so polarized in their interests that they have little in common with each other? Are your givers tired of giving to your getters, and your doers tired of being used by your users? Do you miss the enthusiasm and excitement of your first meetings, when everyone was learning together? Does your group need a transfusion of fresh blood? The donors are out there and waiting, if you can find them!

Do you want to see new hardware, new software, new publications for your computer? The bigger the market, the more that will be produced to be marketed. And the market is there - it just doesn't know that it's there!

The user groups are the only ones who can round up the mavericks. You can do it by publicizing your meetings, by letting the TI owners in your community know what you can do for them. You can get newspaper publicity and television publicity. Some of you are already offering classes in programming or in computer use to the general public, to the schools, to libraries, to senior citizens, to foster children, to the handicapped. These are very fine endeavors in themselves, and they can also bring the publicity which will attract new members. And here and there among those new members will be an ingenious hardware hacker or programming genius who will make our computer better than ever.

PROGRAMMING TIPS by Jim Beck

1) Never comment your code: it only helps people find redundancy in it.

2) Remember: If it ain't a game, it ain't worth programming. (Unless someone pays you.)

SEE "TIPS", PAGE 2

REVIEWED

MG GAMES by Bill GasKill

Way backK in the days when I was receiving 99er Magazine I remember reading a review done on Pharoah's Tomb, a game from Miller's Graphics. The review was glowing and I was tempted to buy it, at the then price of around $20. Since I never have been much of a game player on computers I didn't, but a couple of months ago I finally tooK the plunge. I found a collection of MG game programs in the Triton Products catalog, all on one disK for a paltry $19.95. Compared to the original prices for each game, an under $20 price tag seemed pretty reasonable. After receiving the disK and going through the games I discovered that I was not wrong! The MG games disK is not only an excellent value, it contains some of neatest computer games that I have ever played.

Most 99ers Know who Craig Miller is and they will acKnowledge the contributions he has made to the TI Community since the early '80s. But not everyone Knows what an imaginative and sKillful game programmer he is or was. You would have to sit down with this marvelous collection of computer games to see for yourself.

MG Games comes as a single disKette with a small flyer tucKed into the sleeve that tells how to load the games. There are no printed instructions because each game allows you to view the rules on screen. The disK version that I bought contains six programs;

Battle Over Titan
Pharoah's Tomb
Casino Blackjack
Blackbeard's Treasure
Alphabet Soup
Crazy Fun House

I am going to tell you a little about each game but first I will tell you that Pharoah's Tomb and Crazy Fun House are my favorites. The reason is the level of difficulty that they offer. All of the games are incredibly attractive in their use of colors, sounds and sprites. The Alphabet Soup game, which is designed for younger computer users, probably in the 5-9 year old bracKet, even supports speech. But my two favorites have such an added level of challenge, along with all of the other appealing attributes, that they win first prize.

BATTLE OVER TITAN:

Battle Over Titan is a maze game of sorts where you attempt to move a drone across space without getting "zapped" by the bad guys. It worKs with the arrow Keys or a joysticK. The drone sometimes moves incredibly slow and the bad guys' phaser seems to have an uncanny KnacK for Knowing where you are. I found the game to be well done, but the basic concept behind it was not as exciting as some of the others.

PHAROAH'S TOMB:

Pharoah's Tomb is simply incredible! LiKe Battle Over Titan it is also somewhat of a maze type game where you send your team of treasure hunters in to the tomb to grab the treasure and then get out. The tricK is to not fall into any of the "invisible" trap doors and to not get caught by the ghosts that can appear. The game operates with the Keyboard or joysticKs, either of which is equally responsive. The colors used on this game are especially appealing.

When Pharoah's Tomb is first loaded you wait through an initialization period where wave after wave of ghosts (in the form of sprites) are thrown across the screen. Awesome and scary are two good adjectives to describe the sight. When playing the game you can unwittingly get blocKed into the tomb by walls that are suddenly built up around you, but each member of your team has an air chisel to hacK his way out. In a delightful teasing finale to the game you can display the location of all of the trap doors just before the game ends. There are a ton. It's no give away to show them to you though, since you couldn't possibly remember where they are next time you play.

Even though Pharoah's Tomb is written, liKe all of the games on the disK, in Extended Basic, it rivals any assembly-coded counterpart in fun, innovative programming and challenge. It alone is worth the price of the disK.

CASINO BLACKJACK:

Casino BlacKjacK is a neat game that offers multiple ways to play BlacKjacK along with allowing you to play against 1, 2 or 4 decKs of cards. It even has a play and teach mode where you can learn the mechanics of the game while having fun playing at it. As the name suggests, Casino BlacKjacK is the game of 21, pitting you against the dealer. The sound of cards being shuffled is bafflingly real and the graphic depictions of the cards excellent to outstanding. If you liKe to play this game, then you have found it for the TI. It is as good as two such games I've seen written for the IBM-type of computer and better than a couple of others.

BLACKBEARD'S TREASURE:

BlacKbeard's Treasure is by far the most spectacular as far as graphics. The opening screen shows a 3-D view of you and your divers on a boat waiting to dive so that you can retrieve sunKen treasure. The screen is a cut-away view that shows the water, the ocean floor and everything on it.

The problems you have to deal with are the shark-infested waters and the giant crabs on the ocean floor. Here again, Craig has made excellent use of sprites to provide constant but variable speed motions from the threatening sharks and crabs.

The game operates with the arrow keys and lets you alter the movement of the diver up and down and left or right. You have total if not precisely responsive control over the diver. The lack of precise control is a bit of deliberate programming on Miller's part to make the diving effort more realistic. If you were actually diving you wouldn't be able to make abrupt stops or changes in direction. Blackbeard's Treasure doesn't let you get away with that either. It does however let you make diagonal ascents and descents and provides you with more than enough response to the keypresses to avoid trouble (if you're good enough). It's an excellent game that is targeted I think toward the 9-12 year old game player.

ALPHABET SOUP:

Alphabet Soup was a real surprise. It is as much an educational program as it is an entertaining game. I laughed at my own inability to gobble up the letters of the alphabet that I found myself chasing around the screen. Alphabet Soup is a Pac-Man type game that uses the joysticks and has an option for the speech synthesizer if you wish to use it. The program is written for the 5-9 year old player and it challenges the player to eat the letters A-Z with a cracker that, like Pac-Man, never stops moving his jaws. How Craig got so many different movements on the screen at the same time is a marvel, and in Extended Basic. This game is sure to be a winner with your little ones.

CRAZY FUN HOUSE:

Last, but certainly not least, is The Crazy Fun House. This is really a Pac-Man like game in that your goal is to gobble up a maze full of dots without getting "wasted" by the ghosts. The threats involve only one ghost at times or as many as seven. I found the single ghost to be the most troublesome, because he chases you from "hell to breakfast" as the saying goes. But if that's not bad enough, sometimes the maze becomes invisible and you stumble around blindly trying to get away from the creep.

While the description I just gave might seem to depict a basic Pac-Man challenge, it is not. The game is so well done in its use of colors, sounds and extremely responsive movements that it exceeds the appeal of the famous Atari character. It is simply a great game that will frustrate you at times, anger you at others and give you hours of enjoyment along the way.

REPORT CARD:

Performance and value are the strong points of this exceptionally good buy. All the games provide the kind of movement your central character needs to accomplish his mission but you have to be good enough to keep him out of trouble. The levels of challenge rival many games written in the lower-level languages. The innovative use of sprites, colors, sounds and character re-definitions to achieve screen displays is amazing.

Ease of use is almost not worth evaluating. The instructions are clear and to the point, while also being entertaining reading. Four of the six games allow either keyboard or joystick control and a six year old would have little trouble figuring out what to do in order to play in most of the games.

Documentation is difficult to judge since there is no printed instructions or manual. But the on screen ones are so well done that you simply don't need a manual.
My final grade for MG Games is a solid A+. It is just too good a buy to pass up, even if you are not a game player. It's the kind of entertainment that virtually anyone who uses a computer can enjoy, and incredibly, it's all written in Extended Basic, with no assembly support. All of the games run in a 16K environment even with the overhead lost to a disk system.

If you are looking for an alternative to those GIF nudies you like to download or if you have processed your words until your fingers feel like they are going to fall off, this disk of games is for you. I'm sold on it, and I don't even like games. I still prefer the GIF downloads.

REPORT CARD				
	PERFORMANCE:A	DOCUMENTATION:-	FINAL GRADE	A+
	EASE OF USE:A	VALUE:A+		

TIPS CONTINUES

3) Never work on a program for more than four hours. If it takes that long, save it on disk, place it in your disk box (preferably at the back) and forget about it. Plan on finishing it between now and the death of your great grandchildren.

4) Never use structured programming techniques. All programs should look sloppy, confusing, and completely unreadable. When programming in BASIC, every third statement should be a GOTO. This, when others look at your listings, will make you look like a genius. (Which, in most cases, is a sharp contrast to reality.)

5) Never organize your disk. Remember: A tidy disk box is the sign of an exceptionally weak mind.

SEE "TIPS", PAGE 4

WARP SPEED FOR YOUR TI

DISCLAIMER: If you attempt this project and the smoke leaks out of your computer I am NOT responsible.

by Jesse C. Slicer/COMMUNIQUE

INTRODUCTION

Does your stock TI-99/4A console seem to be dragging in these modern days of computers running on 33 MHz 80486 and 68040 systems? If so, perhaps a quickie speedup is for you. The following instructional will show you how your stock TI-99/4A can be speeded up from 3 MHz to 3.58 MHz. I accept NO responsibility in the damage of anyone's computer equipment; however, I have taken care to ensure success. I credit most of the technical material presented here to Barry Boone, who first told me how this modification was done. Make sure you read this ENTIRE document before you take any action whatsoever.

BEFORE YOU START

Before you begin dismantling your console, eager to speed it up, there is a part you may or may not need to buy. This is the 14.31818 crystal (this is NOT a clock crystal). I was once given two defunct Commodore VIC-20s and each of them had these for their video circuitry. Otherwise, it will be a trip to your local electronics store. Most Radio Shacks do not have this in stock but they can order it for you. It takes about four days, and the cost is about four and one-half dollars.

GETTING STARTED

With part in hand, and standard tools at your side, you are now ready to begin. Open the console all the way until you have the circuit board facing up at you. About one and one-half inches below the 9900 microprocessor and just to the right of the 9904 sound chip should be a component that looks almost like the one you just acquired. Carefully note the number on the one on the circuit board. If it is not 12.000 (might be 28.000), then this console cannot be modified in this manner.

REMOVING THE OLD CRYSTAL

Use your fingers to locate the solder pads for the crystal on the bottom of the circuit board. Flip the circuit board over. Using a desoldering iron, remove the solder pads surrounding the leads. The crystal can now be pulled out of its normal place and set aside. DO NOT THROW IT AWAY!!! You have a definite use for this that I shall describe later!

INSTALLING THE NEW CRYSTAL

Face the numbers that are on the new crystal in the same direction the old one was, slide the new crystal into the area where the old one was located. Using a soldering iron, place small solder pads around the base of the leads on the circuit board. Then, using wire snippers, cut the leads down to your solder. Clean up the area on the circuit board, close up the console, and turn on your computer.

THE MAGIC HAPPENS

Run a few programs and note the increase in speed they have. Enjoy how you gained 19.3% increase in pure microprocessor speed. Then, as you run some programs (terminal programs, graphics intensive, for example), you begin to notice.....

PROBLEMS!

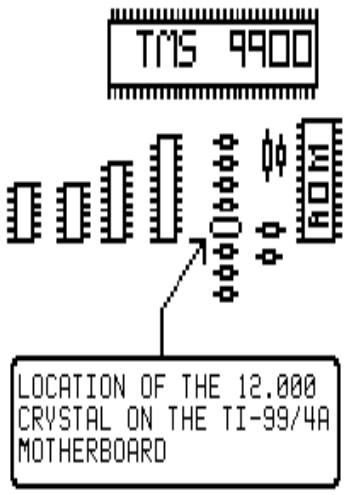
Ack! Why did there have to be a snake in paradise?!? All is not lost. You can still use your terminal programs and graphics intensive programs with your new console. Remember when you saved the 12.000 crystal? How about we put them both in and have a switch between them? Sounds like a good idea. Let's do it.

INSTALLING THE DUAL SPEED CRYSTALS

Assuming you read through this entire document before you started, this will save you some trouble. First, obtain a double pole, single throw (DPST) switch from ye olde electronics shoppe. This should have six connections on the bottom of it. Also, obtain about ten inches of some thin duralloy wire. Cut the wire in half and solder one end of each of the wires onto the middle leads of the switch. Then, instead of installing the new crystal as shown under "installing the new crystal", install the other ends of the wire into the old crystal "socket". After that is complete, solder (remembering the way the numbers were facing in the socket (Key them with the wires)) each crystal to the two paired leads of the switch. Mount the switch somewhere on your console. I cut a hole in the back and glued it there. You now can switch between a standard console for those problem programs and the new SPEEDY console that gets your work done somewhat faster!

ENJOY!

Programs that do intensive number crunching or memory manipulation will benefit from this the most. Disk I/O will speed up slightly only because the code in the ROMs are being executed by the faster processor. Good luck and warp speed!



TYPE IN PROGRAM

```
1 ! REACTION TEST
100 RANDOMIZE :: B$="00" ::
CALL CHAR(120,"3C4299A1A1994
23C",122,"")
110 DISPLAY ERASE ALL :: FOR
 I=0 TO 14 :: CALL COLOR(I,1
6,1):: NEXT I :: CALL SCREEN
(5):: CALL COLOR(3,2,16,4,2,
16,2,2,16)
130 CALL COLOR(9,2,16,10,2,1
6,11,2,16,12,2,16):: CALL HC
HAR(1,3,122,30):: CALL VCHAR
(1,3,122,24):: CALL VCHAR(1,
32,122,24)
150 DISPLAY AT(3,9):"REACTIO
N TEST" :: CALL HCHAR(24,3,1
22,30):: FOR I=1 TO RND*300+
50 :: NEXT I :: CALL SOUND(2
00,770,0):: DISPLAY AT(7,10)
:"ON YOUR MARK"
180 FOR I=1 TO RND*100+30 ::
 CALL KEY(0,K,S):: IF S<>0 T
HEN 280
190 NEXT I :: CALL SOUND(300
,999,0):: DISPLAY AT(11,13):
"GET SET" :: FOR I=1 TO RND*
400+1 :: CALL KEY(0,K,S):: I
F S<>0 THEN 280
210 NEXT I :: DISPLAY AT(15,
15):"GO" :: T=0
230 CALL KEY(0,K,S):: T=T+.0
35 :: IF S=0 THEN 230
240 IF T>=1 THEN 250 ELSE A$
="0"&STR$(T)&SEG$(B$,1,4-LEN
(STR$(T))):: DISPLAY AT(18,7
):A$&" SECONDS" :: GOTO 260
250 DISPLAY AT(18,6):USING "
##.### SECONDS ":T
260 DISPLAY AT(21,10):"'PRES
S ENTER'"
270 CALL KEY(0,K,S):: IF S=-
1 THEN 270 ELSE IF K<>13 THE
N 270 ELSE 110
280 DISPLAY AT(16,3):"KEY PR
ESSED TOO EARLY" :: GOTO 260
```

WAVE ONE LINER

```
1 IF X=7 THEN PRINT SEG$(A$,
N+1,28):: N=(N+ABS(N<23))*AB
S(N<23):: GOTO 1 ELSE CALL C
HAR(X+96,RPT$("0",14-(X)*2)&
"FFFF"):: A$=RPT$("'abcdefed
cba",5):: X=X+1 :: GOTO 1 !
BY JOHN MARTIN
```

TYPE IN PROGRAM

```
1 REM HAPPY BIRTHDAY
100 CALL CLEAR
110 T$="********"
120 P$="  HAPPY "
130 S$="BIRTHDAY"
140 PRINT TAB(10);T$: :TAB(9
);P$: :TAB(10);S$: :TAB(10);
T$
150 PRINT
160 FOR Y=1 TO 220
170 NEXT Y
180 A=440
190 G=392
200 F=349
210 E=330
220 D=294
230 C=262
240 BT=466
250 HC=523
260 HD=587
270 HE=659
280 FT=4
290 ACC=2
300 EG=250
310 Q=500
320 HL=1000
330 GOSUB 560
340 CALL SOUND(Q,D,ACC)
350 CALL SOUND(Q,C,FT)
360 CALL SOUND(Q,F,FT)
370 CALL SOUND(HL,E,ACC)
380 GOSUB 560
390 CALL SOUND(Q,D,ACC)
400 CALL SOUND(Q,C,FT)
410 CALL SOUND(Q,G,FT)
420 CALL SOUND(HL,F,ACC)
430 GOSUB 560
440 CALL SOUND(Q,HC,ACC)
450 CALL SOUND(Q,A,FT)
460 CALL SOUND(Q,F,FT)
470 CALL SOUND(Q,E,ACC)
480 CALL SOUND(Q,D,FT)
490 CALL SOUND(EG,BT,FT)
500 CALL SOUND(EG,BT,FT)
510 CALL SOUND(Q,A,ACC)
520 CALL SOUND(Q,F,FT)
530 CALL SOUND(Q,G,FT)
540 CALL SOUND(HL,F,ACC)
550 END
560 CALL SOUND(EG,C,FT)
570 CALL SOUND(EG,C,FT)
580 RETURN
```

TIPS CONTINUES

6) Debugging is to programs as decaffeinating is to coffee! Never keep your source code after you've compiled it. Only an idiot puts out later "bug-free" versions.

7) Always use global variables. Programmers have enough problems without passing parameters.

8) Never make flowcharts or pseudo-code. A program should come from the top (or in some cases the bottom) of your head. It should never do what was planned for it and should seldom, if ever, do what it does completely correctly.

9) Try not to use descriptive variable names. In languages that require you to predefine your variables, predefine all possible combinations of letters and save as a template for all your programs. This allows you to use whatever variables you want without having to go back and insert.

10) Never spill Coke on your Keyboard more than once a week.

11) Only use disks as coasters under cold drinks.

12) Always have an excuse if things don't work properly. Some good examples are: "It's not supposed to do that!","The instructions were unclear/unreadable/completely wrong" and, of course, "This computer is broke!"

XX) Never use the number 13 in your programs: it's unlucky. Define it as a constant, such as "XX".

14) Do not hit your computer with objects like wooden baseball bats. Use aluminum ones: you'll have less problems with static.

15) Never, but NEVER read the instructions. If it does not work, plug it in, fix it, or bang it against a wall.

P.S. By the way, if your computing teacher says anything contrary to these basic rules, calmly point it out to them. If they still disagree, then ask them why they make their living teaching instead of programming, if they're so smart!

EDITORS NOTE - This newsletter is composed in its entirety using a TI-99/4A home computer. I have finally managed to find a way to print the pages through a serial cable to a PC to be converted to a PDF. No more light prints or "dots" from my trusty Panasonic KX-P1191!