## WORDPLAY

The PUNN Newsletter Portland, Oregon

WORDPLAY - FEBRUARY 1994 - VOLUME 14, No.2

PAGE 1

#### TABLE OF CONTENTS

PRESIDENTS MESSAGE_	1
MYRT'S MEMO	2
BEST O D BOARDS	2
TIGER CUB GROWLS	3
3.5'S AND MYARC	485
R.L.E. DIGITIZER	_6&7

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MURPHY'S LAW
IF YOU REALLY DON'T
UNDERSTAND WHAT'S
BEING SAID MAYBE IT'S
ROAD KILL FROM FROM
THE INFORMATION HIGHWAY

### From the President

As you may or may not know we have been having trouble with the PUNN BBS for a while but it should be fixed shortly. We are not exactly sure what causes the problem, but when we get a bad message the only thing we can do is put in dummy messages until the bad one drops off the end.

If you ever have the BBS lock up on you while you're in the memory base, make a note of which message you were reading when it happened. Then the next time you call in, start reading from the next highest message. Also, when you have a lock up, make notes so you can call Ron on a land line and tell him exactly what happened. This will make it a lot easier for us to track down what is happening. Right now we don't know what the problem is. It could be the poor ole BBS is just lonely because we're not getting very much traffic. So be a good PUNNer and check in more often.

This month's program will be more on TIBASES with Terry Priest leading the way. Mike and Myrt have had a post card from John Simak who'll be back from San Diego and I'm sure he'll have lots of news from the FEST WEST to share with us.

By the way we have been given a lot of TI Hardware, Soft ware, Books and Magazines. Mike and Myrt Calkins have been storing it in their basement. But Myrt says that we got to get rid of it because she wants her basement back. So if you need anything contact Mike Calkins at 1-503-636-1839 and see if we have it. He's been promising me a fire hose extention for two months and I'm still waiting because we sell cheap.

Remember the welcome mat is always out to new members. If you know any one that has a 99/4A, invite them to one of our meetings. They may not know how far the TI has come in the last few years. Make it a point to pick them up and bring them to the next meeting if you can. If you can't, at least be sure to come yourself after all the snow and ice are long gone.

LETS HAVE A BIG FEBRUARY MEETING!!!!

#### MYRT'S MEMOS

Greetings — one and all. I do hope that none of you had too much trouble during our recent spell of good old New England winter! Just a little reminder from the powers that be (as my mother would say) of how insignifigant we all are.

Be that as it may, it looks like are now headed for Spring and that means that it will be daylight and bright and shiney when the time comes for evening meetings. I know for me, it always seems easier to go somewhere when I can see where I am going. Perhaps the same is true for If so, we should have massive turnout at the February 27th meeting, YES?

As many of you may have heard, Mike and I are among the many who recently acquired a Pentium have (the brainless one.) I call it that because even I can start working with it having had little or no training. However, if it had not for the experience been background I had from the TI, whole transition would have been much less pleasant. Just to life more complicated, I now need to learn how to make the two of compatible. Therefore, wondering if I would be considered a true heretic if I proposed that we have a program on the subject. think I am the only one who would benefit from such a program, and, who knows, we might attract some new members.

Anyway, those are the thoughts for the month from the "brainless one".

See you at the meeting.

Myrt.

TREASURER'S REPORTCAL OBERG
SALE OF MICRPENDIUMS\$ 7.00 MEMBERSHIP RENEWALS\$60.00
SUBTOTAL\$67.00 LAST MONTHS BALANCE\$328.61
THIS MONTH BALANCE\$395.61

#### ---> BEST O' D' BOARDS <---

Here's a fine bit of info that came directly off the . -MUG-TIBBS Message section. Hope you get as much out of its as did I.

Messages 10641-10644 06:00:14 10/11/88

Re POWER SUPPLIES TO RICHARD LUMPKIN By JOHN GUION-LUBBOCK, TX

Richard, I just received a copy of the August 1988 MUG newsletter and read your article concerning power supplies. After reading so many false comments such as "the ones with black heat sinks are the best because it makes them cooler", I was very pleased to read some intelligent information on the subject. It is the best article I have seem in a while. After having spent quite a bit of time in the last few years repairing consoles, I thought I might add a little information I have picked up along the way:

- 1) II actually used five variations of power supply design rather than three. The other two, however, were only used during the first year of 4A production and almost always use the in-line connector to the main circuit board rather than the square posts mounted on the P/S board. Electrically, these units use different toroids and extra inductors on the input lines for RFI rejection. Some other mods such as components values, capacitor orientation and jumper configuration also differed. However, the basic circuit and reliability was identical to all other earlyproduction supplies.
- 2) TI did actually use some of the Iriichi Tsushin Kogyo supplies, but only in very late 1983 and in early 1984 when they were still filling school contacts and as replacement in the exchange center in some QI consoles. I recently repaired consoles for a private school and found the Kogyo supplies in seven of the consoles I fixed. All of these consoles were produced in early February of 1984.
- 3) The problem you noted about brief shorts across the +5V line and ground on the Kogyo supplies is very common. However, it is also fixed very easily (in MOST cases). The A1012Y transistor is only rated at 1.0 amp and shorts internally upon over load. Replacing this transistor usually fixes the supply. You article mentioned that this is a TIP31 equivalent. Actually, the TIP31 is an NPN transistor and was (as you stated) used in the earlier supplies. In the Kogyo, this is a TIP30 (PNP) equivalent. If you do replace the A1012Y (or TIP30) transistor to fix the supply, I would suggest replacing it with a TIP32 or TIP32C. This transistor is a drop-in replacement, but can handle 2 amps instead of 1 and may help prevent console destruction in the event of a brief overload.

Again, thanks for the informative article. I wish more like it were published. After all, when II calls it quits on repair, it will be up to the users to fix their own equipment.

#### THE TIGERCUB GROWLS 222222 22222

#### by Jim Peterson

GROWL #1. Arto Heino in Australia, being unexployed and in need of income, wrote a great program called Picasso Publisher. He is selling it in Australia through the Sydney User Group, and was hoping to find a U.S. software publisher to handle it in this country.

A user in Australia sent a copy to a user in California, and erroneously stated that it was fairware, although the program bears a copyright notice and no cention of fairwars. The California user uploaded it to SENIE, the SYSOP of GENIE accepted it, and it has by now been downloaded and uploaded back to every 885 in the country!

So, another good programmer's livelihood has been ruined, and we will all suffer as a result. I as sure that Arto Krino will not be writing any updates to his program and will not be writing anything sore for us.

Now, if you have Picasso Publisher in your files. and if you are one of the honest users accord us, you have two choices. Delete it or pay for it. And don't just pay what you want to, because it is not fairware. The price is \$23 Australian, which is \$14.35 American if our dollar does not become even more worthless by the time this is printed. If you think that is too such, take a look in a computer magazine and see what such a program for any other computer would cost you. I hope that every user group will take up a collection and send it on to Mr. Heino.

SRCAL #2. It recently found time to download a diskfull of programs from a BPS, and found that three of thes had a Texas Instruments copyright notice staring at se from the screen. Two of them were old II cassette programs which are still listed in the catalog of a major bail order house, the third was a ducped arcade game

Now, passing this stuff around is not hurting Texas Instruments, because they have unloaded all their stocks to retailers. It is hurting those retailers, who are still supporting us - and if they quit, we are really in deep do-do! Texas Instruments has stated that they are definitely defending their copyrights on that material. because they have an obligation to those retailers.

If the person who uploaded those programs obtained theo legally - which I greatly doubt - he had a legal right to take one archive copy for his personal use. He did not have a legal right to make a copy to the program disk of a BBS, and he exposed himself to prosecution by doing so, because his user number was recorded as the uplcader.

He also exposed the SYSOP of the BBS to possible prosecution. The BBS SYSCPs are giving a great deal of

their time and equipment to providing us with a free service for our massages, and a source of free programs. and they should not be endangered by irresponsible individuals. There have have been repeated attempts to to restrict 8BS operations by Federal legislation, to to curb the illegal activities of some individuals, so let's not add fuel to that fire! In my opinion, anyone who uploads copyrighted material should be permanently barred from the BBS.

GROWL #3. Programmers, please don't put a copyright notice on a program unless you really want to restrict its distribution! There are folks out there who are trying to avoid being involved in piracy, but you are making it difficult. If you're going to give the program to everyone, and you don't care who they give it to, don't label it as a copyrighted production of Super Fantastic Software Inc. If it is fairware/shareware, say so right on the title screen. If you want to give it away but you don't want socoody else selling it, or taking credit for it, or acdifying it, say so on the title screen. After a certain Florida outfit started sailing some of my public docain for core than I was charging for copyrighted programs. I started tibling my more worthwhile efforts as "copyright Tigercub Software. for free distribution but no price or copying fee day be charged.\*

GROWL #4. Folks, when you upload something to a BBS, and you are promoted for a file description - won't you please give the complete program name, the author's mage if possible, and the hardware required to run it? I's getting awfully tired of spending an hour or so downloading and unpacking files, and finding nothing that I want because it is something I alreadyy have (sometimes something I wrote myself!), or requiring equipment I don't have - or comyrighted. Is "FILSOML, a great utility" worth downloading? Is "OTHELLO" one of the four versions I already have, or has someone perhaps written a better one? Is "the very latest version of Funlwriter" a later version than the one I have? (Please, at least sention version numbers, that's why the authors use them!) Are you one of the many who spent amay downloading 290 sectors of TEZSINGS from GENIE, when you already had Barb Berg's TI-SINGS?

With the proliferation of programs being written for the Tool Shed, the Gram Kracker, the various new versions of Extended Basic, the Super Cart, etc., it is becoming very frustrating to even determine why a downloaded program won't run for you!

REF 3.5" DRIVES, MYARC DCC, etc.

AS I commented on page 5 of the Oct 88 Newsletter, further info on 3.5" drives would follow to explain the changes made in page 4. The Story:

Oh well, just to prove that everything NEVER is as easy as it is expected to be..., by 3.5° NEC drive and the Tandon and Resex all lived happily ever after on the TI controller card, until the day when the wicked stepper-card of New Jersey case on the scene...(Older model, bought used)... and verily, said CARD (being a Joker at heart) agreed pretty such with the NEC and the REMEX but gave the Tandon hic-cups, on single- density, no less, and occasionally even the ever-swift NEC coughed and sputtered a bit.

BUT THEN, when the spell of the dreaded 'double-dense-city' was cast on the group of three, matters went off track and auddled in a hurry....the Remex started grinding in its armor, and the Tandon missed its appointed rounds and stops, and so it came to pass that the chief 'matt-wizard' of the 'round-disc' was called in, to again make the sectors smooth. And after much smeating and huffing and puffing, aforementioned mizard spotted a certain pattern to the otherwise seemingly random pattern of glitchy events, being as a series of non-fatal, and non-repeatable, numbers of the "sixteen times something, PLUS 1" incantation....

Oh HA! says he, we have a lepper-jump-the-track-somehow-bad-maybe too-slow problem. which proved to be exactly the NOT right answer, since has made the problem either more of the same or at least not less of the same.

AND, just to make the puzzle more puzzling, the problems were truly random in occurence, though quite regular in position, and sometimes would appear on a disc which previously had performed perfectly, during subsequent formattings on the same drive. These trials were almost all during attempts at the ritual act of Formatting, since the only previous signal of problems was in the occasional 'searching' by the drives (re-cycling out to track 00 and back in to the desired sector) during program READS and disc copys, plus a few random 'lost' sectors....(Sound familiar, Myarc owners ??) All symptoms count, in the final count....

So, by what dark art could these devices be so bewitched by 'track step'??? And more to the point, what to do about it, since the loss of reliability gives rise to rapid shivers of the spine on each disc run.

AS the tale proceeds, it would seem that the previous electro-wizardry of playing with the jumpers on the NEC (to get the motor to run only when the drive is active), plus the slightly slow reactions of the Remex plus the previous dition of a diode to the Tandon board to achieve motor isolation (Motor off except when the drive is 'active' all were related.

All this worked just fine from the TI card (slow) but when they were placed into the brew with the Myarc 'speedy singing drive jousting' card, one heretofore unknown condition appeared—something was causing the drives to SLOW DOWN, said speed decrease being AT THE TIME precisely OF THE STEP, or actually shortly thereafter (about 2 u-sec) and being related apparently to the Drive Select signal Pulsing between sector READS 'just enough' to slow down the drive and cause a false skip in READing on the FIRST sector of tracks, some-times!! Like, randomly about one time out of 25 and depending on which drive, and how much DISC-DRAG was present at that time?? Since the errors WERE MOTED to be disk-dependent.

THIS WAS entirely dependent on the speed of reaction of the DRIVE to the pulses, and was NOT A ACTUAL FAILURE DURING THE WRITE PORTION OF THE INITIALIZATION, as I deftly proved, by taking a disc with consistent 'skip/recycle' occurences on the Tandon and then by getting the Remex to VERIFY the sectors without also first Writing (Initializing) the sectors on that particular disk. At which time, the REMEX found NO PROBLEM with the 1240 sectors the TANDON drive had placed on that disk!!! Not only no BAD sectors, but no problem accessing to all of them without 'searching'. This despite the fact that the Tandon ITSELF had trouble accessing the sectors it HAD JUST PLACED THERE; thus I eventually decided that this was a READ process problem, not caused during the WRITE procedure.

In fact, most of the problems occuring on the drives were NGT 'bad sectors', but were rather of the 'non-fatal' type of cycling a couple of times to find the sector and then finally getting it and going on... 'Therefore,, most of this may have been there for a while, and just not recognized, except in a PREVIOUSLY NOTED resistance on the part of the MYARC card in USING disks which had been created with the TI controller. Not ALL disks, just SOME disks, and sometimes it was possible to reformat a blank disk with the Myarc and then re-copy the disks and THEN THE FILES MOULD MORK JUST FINE! The Remex verified with no cycling, anyway...ALL OF THIS VIA DM1000 of FWB 4.0, 16 sectors per track. HOWEVER, the Myarc card WILL NOT USE PRBASE DATA FILES (Single Density) which have been created (FORMATTED) with the TI controller (single D)!

And the NEC was working just fine, on most discs, nary a burp....UNTIL..., the dragon of the 18th sector appeared courtesy of FW8 4.12, which formats to 18 sectors—at which time all complexes changed. Suddenly the NEC 3.5 was filled with frequent singing sounds of 'stepper slide' as it searched for the elusive sectors preceded by an even 18...and the Remex went whacko to an unprecedented degree....but wonder of wonders, the end was in sight......1 rejumpered the Tandon and it cleared up marvelously as long as the MO (Motor On) ran from line 16 (the common line for the MOTOR control) and not from the Drive Select line....

AH HA says I, now we have discovered the amulet, and on to the NEC, Better described as, 'too many jumpers inter-connected without plan or schematic'. I YOMed and probed and traced and finally got a new set of NEC jumpers figured out. The previous set of jumper settings I had would have had the DRIVE MOTOR and HEAD LOAD SOLENOID both

running from the Drive Select (activity) signal, which, as I said, worked just find on the TI controller and "might" work on the Corcomp... Somebody try it and let us know, please. BUT it did NOT work on the Myarc, and the NEW set of jumpers had the Head Solenoid activated from the Motor On signal, so the Head was on the spinning disk ALL the time ANY DRIVE was active.

SO... in order to reduce head and disc wear from the drive rotation during Motor On from the other drives, I needed to get the HEAD LOAD from the DRIVE SELECT signal, but MOTOR ON from line 16 (which is common to all the drives--'all motors run any time any drive is active'). These (NOVEMBER) settings do that:

**NEC** Jumpers list:

HL = center to '1'

DL = open (prev. listed as 'M2'

MO = jumpered (2 pins)

MN = '2' to center

HI = jumpered (2 pins)

DH = '2' to center

DCG = '1' to center

DX = per drive number (less one)

then the MOTOR runs continuously during all drive accesses, and the Head Load stays off until the Activity LED comes on......PRESTO MAGIC--NO MORE RE-CYCLE on the stepper on the NEC.... The Remex (Slow) continues to give occasional errors on 18 sectors, and the Tandon does ok on 16 and 18....All these on DM1000 Initialize/Verify AND via Hyarc DMIII.

Which brings up a good point which I have left out until now.... If these sectors did not show up as actually being BAD (just hard to find), why worry about them??

Well..IT SEEMS that for ANY SIVEN CONTROLLER CARD and drive combination, plus Interlace mode, \*\*\* THE SPEED OF READ-VERIFY of the sectors, plus hesitations, plus re-cycle times. IS EXACTLY HOW FAST YOU CAN READ THE DATA FROM THE DISK SECTORS (as Files).

All this means is, if you have a bad interlace pattern or drive pin-out problems which cause it to take longer to VERIFY (slow rate OR hesitations, OR searching/recycling) then when you try to READ the data from that file later on, YOU WILL READ AT THE SAME RATE AND WITH THE SAME SEARCHING. ETC.

The time to 'Initialize' or WRITE the sectors is the SAME for single or double density, on the Myarc card, whether from DM1000, Myarc DMIII, or TI-DM2 module-- 17 seconds per side, 34 seconds per 2 sided disc....The Interlace Mode does NOT effect this time. The REST of the time used is in READ-VERIFY, and is totally dependent on the sector-interlace spacing on the disk, and on whether the drive responds correctly.

In fact, the DEFAULT of the Interlace on DM1000 is '4' on single density, and '5' on double density, THE SAME AS WITH THE DM2 module, and same as the default of the Myarc

numbers to match most drives without creating errors. Most that the Motor Signal jumpers are set 'correctly', the Tandon works fine at these for 9 sectors (single density) and at double density--16, 18 sectors / track. The Remex is good at '4' for 9 sectors, and at '5' for 16 sectors, but very occasionally burgs on '5' on 18 sectors. Neither likes '3' on 9 sectors, but BOTH work fine at '2' on 9 sectors, if 'fine' if a good term for reading a FULL SIDE of single density in -19- seconds! instead of 35 seconds.

IF WRITTEN AT A PARTICULAR INTERLACE SETTING, both 'Verify' AND all 'Files Access' will be at the SAME READ SPEED!!!! Where all this becomes very important, is where you have drives capable of SPEED (like 3.5" drives!). On a fast drive, with 16 sectors/track, an interlace of 3 will work, and you can read 640 sectors (SS,DD) in 26 seconds!! That is a rate of 24.6 sectors per sec., or 6.3 k-bytes per second; you could read a typical "33 sector" M/L file in less than 1.4 seconds. Not bad for a 'turtle-TI' and the 3.5's and good 5.25's will do it, with a fast step time of 6ms or better. At 18 sectors, the best you can do is Interlace 4, at 34 seconds per 720 sectors, or 21.2 sectors per second....Normal interlace is '5', for 42 seconds per 640 OR 720 sectors... (Sometimes they are the SAME READ times for both 16 or 18 sectors on the same interlace, and sometimes 16 / 18 sectors vary greatly in READ time.) The 3.5° drive, properly jumpered, seems to be able to handle anything sent to it without errors, and has only had ONE apparent access failure on one disk since November, and seems to show no sensitivity to particular software either. It is noteworthy that the PRBASE program uses DIRECT SECTOR ACCESSING in its operation, as do many of the newer, faster programs, and so places a higher demand for proper timing on the drive.

So if you set an Interlace which runs good and runs fast on YOUR drive, and your friends drive can't handle it, it will ratchet about 40 times on that disk, and he will hate your "quick-loading disk". . . . Easiest and 'safest' is to use the Disc Manager defaults, and correct whatever Disc Drive problems you have.

Any time you see that sector numbers are hesitating or stopping momentarily during "Verify" on a disk, or the drive ratchets back and forth, you have some kind of problem in the system. First, clean the drive heads. Second. make sure you are using a decent quality disk and it is not defective. I have Initialized 35 of the 3.5° disks, with two failures, BOTH of which made clicking or dragging sounds while running. One was a generic, and one was a highly regarded 'brand name' disk.

If all this flew past you, see your local wizard for some help getting your drives to digest what the controller card might be throwing at them!

///rtlumpkin/11-27-88///Myarc DCC///

HOUSTON USERS GROUP - JAN 89 -PAGE 6

I've the past I've metioned about some of the good stuff that HUG gets through the exchange of newsletters. This section will also become a regular part of the newsletter. The following is a small example of some of that info:

THE ALL-NEW, SUPER-DUPER, HANDY-DANDY, 98 CENT, DO-IT-YOURSELF, WAXPAPER

## 

BY: RAY KAZMER, SFV 99ers

When I saw my first R.L.E., I thought, "GOLLLL-LEEEE! I'd SHORE like to draw ME a pit-chur like THAT!!" Then I found out that it takes something called a "digitizer" to make an R.L.E. and THOSE things could cost a LOT more than my '66 Chevy (fer-shirrrrr!) Since my TI-ARTISTIC talents were FAR from perfect, I decided I'd try to make a CHEAP digitizer, one which required very little talent to use, but would yield a fairly good R.L.E.

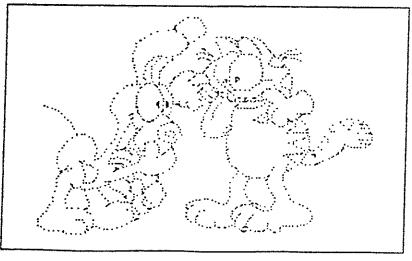
"Tracing" a picture, then sticking the paper to my TV screen, so I could move TI-ARTIST's cursor under it (drawing as I went) seemed a good idea, but regular tissue paper wouldn't let me see my cursor CLEARLY enough! I tried "plastic wrap," which certainly DID allow me to see the cursor but wouldn't hold ANY kind of ink! Besides, one touch and it was all SMUDGE, SMUDGE! And you know how it LOVES to "cling to itself!" Mur-der!

While shopping, I spotted a roll of WAXPAPER (98 cents for 100 feet) AND a (9"X12") cardboard folder (with "pockets" inside) used by school kids. Though the folder was way too big for my TV screen, the drawings of ODIE and GARFIELD on the cover (my favorites!) seemed to be just about right!

At home, I taped a hunk of waxpaper onto the folder, then QUICKLY traced over every line, "etching" the image into the waxpaper with a mechanical pencil (with the lead retracted.) THAT WAS A MISTAKE!!! If you decide to try my "digitizer" yourself, trace with GREAT CARE! Make your tracing as ACCURATE as possible! Care NOW, will save you LOADS of "correcting time" later, when you are completing your "on-screen" master-piece! Be SURE to hit ALL lines, BEFORE you remove the waxpaper copy from your "original."

Next, load TI-ARTIST and put a "frame" around the drawing screen, which helps to align the copy vertically, and can be erased later. Be SURE the copy lies WITHIN this frame, THEN tape it to your screen.

THIS PART IS MOST IMPORTANT! Find a comfortable position, "head-on" to the screen, and begin to "outline" the copy, by placing "DOTS" BEHIND the vaxpaper lines. (See sample) JO NOT shift your head sideways! That causes DISTORTION and is HARD to repair later!



AGAIN, the same words of CAUTION apply when placing the dots as when you were making your WAXPAPER tracing, which is: TAKE YOUR TIME! Do NOT rush to finish it fast! CAREFULLY place each dot, as CLOSE to the "center" of each line, as possible! Although this will SEEM like a long, TEDIOUS job to you (and it IS) try to think of it as "building a strong foundation."

There is NO WAY you can follow a "traced" line by just pushing your joystick and mashing the fire-button! You'll see the cursor "weave all over the road" like a drunk driver! Before trying to make your first WAXPAPER R.L.E., plan to spend several hours with it. Be patient! Persevere! Your determination and care WILL be rewarded with a real work of art! (AMEN!)

It gets easier now as you play "connect the dots." You may find the ZOOM feature a real help with this. Another tip: SAVE the picture frequently! If you make a major boo-boo, you won't lose a TOO much time and sweat by simply reloading the SAVED picture, rather than struggling to repair it.

The FINAL STEP is to give your picture a good "polishing," OR what I had referred to earlier as "correcting time." If you took the time to do all the first steps PROPERLY and your picture is now "connected" simply view "THE BIG PICTURE" and all the "rough spots" will LEAP RIGHT OUT at you!! Adding or erasing a single pixel here and there, is all that remains. It sounds simple, doesn't it? (THIS is the HARDEST part!) After you've done all the "correcting" you THINK you can find, SAVE it, then store it away someplace (for a week or two) THEN reload it and compare your picture to the original. If you can't find ANYTHING else wrong with it, it is DONE! (Use MAX-RLE to convert your TI-ARTIST "PICTURE\_P" file into a MAX-RLE.)

Some last tips: DON'T strive for ABSOLUTE PERFECTION! That's IMPOSSIBLE! (Garfield's "stripes" nearly ran me up a wall!!) BUT, by the same token, if you've waited those two weeks and you spot another "flaw," DO attempt fixing it! IF (due to limitations inherent in our consoles or TI-ARTIST, OR due to approaching blindness) you CAN'T fix it (after trying for five or six years) make up some "logical sounding" excuse, when you debut the master-piece. If you make it "high-tech" enough, ANYBODY will buy it! MY winning line is: "Well, NOBODY can draw a PERFECT, curved zig-zag line!"

So, here it is! My COMPLETED work of art! It's NOT a 100% PERFECT copy of the original but what can you expect from a console with an overloaded framistan in it's quadilop?!

There are TONS of "copiable" pictures, for your "WAXPAPER R.L.E. DIGITIZER!" (Coloring books for children, atlases, magazines, calanders, etc.,) and if any 99'ERS out there, try doing some PLAYBOY stuff well, I'd appreciate a copy, (before I go totally blind!)



After ALL THAT WORK, it's time for some FUN! Here's a RIDDLE for all you sharp-eyed TI-RUNNER players. WHERE (in TI-RUNNER) do the initials "IBM" appear on screen? HERE'S A CLUE: Play the game up to Level 28, then look in the bricks, but don't look TOO CLOSELY, or you MIGHT miss them!) R.K.

01/01/96 T.I. BUG BYTES USER'S GROUP P.O. BOX 3051 Clontarf MDC QLD, AUS 4019

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# The PUNN Newsletter WORDPLAY

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NEXT GENERAL MEETING - MONDAY - FEBRUARY 27th, 1995 NEXT BOARD MEETING - TUESDAY - MARCH 14th, 1995

WORDPLAY - FEBRUARY 1995 - VOLUME 14, No. 2