

BITS, BYTES & PIXELS

LIMA 99/4A USERS GROUP



October 1993

Volume 9, #10

REVIEW OF PDP/CART by MARTIN MARCINKO

Lima Ohio User Group

31 JULY 1993

The pop/cart is made by : OPA (Oasis Pensive Abacutor)

GARY BOWERS

432 JARVIS ST. #502

TORONTO, CANADA M4Y-2M3

PHONE NO. 1-416-960-0925

I got my pop cart from L.L. Conner Enterprise. He got them from Gary at the Lima TI fair MAY 14/15 in Lima Ohio. It has the OPA Micro/Manager V1.10.9102.27 and RXB/CART V1.21.9303.17 #3428751. Here is a little review of my pop cart.

This pop/cart has these things in it. They are in two pages; one is the (cartridge) MODULES and the other is the PROGRAM page. Put the pop/cart into the Cartaridge port and turn on the TI. It says with speech 'READY TO START' then it shows this:

```
[          COLOR BAR          ]
```

```
[ ]
```

OPA MICRO-MANAGER

V1.10.9102.27

READY-PRESS ANY KEY TO BEGIN

RXD/CART V1.21.9303.17 # 3428751

PRODUCED BY OPA ©1993 BY R.L.B.

©1991 OASIS PENSIVE ABACUTOR

When I PRESS ANY KEY it says with speech 'MODULE' then shows the modules page. The modules that are on my pop/cart are:

RXB/CART V1.21.9303.17 #3428751
PRODUCED BY OPA ©1993 BY R.L.B.

RICH 6K X/BASIC V5.40

RICH EDITOR/ASSEMBLER

TI-WRITER

TI-BASIC

TERMINAL EMULATOR II

HANG-MAN GAME

HANG-MAN DEMO

BEgin TOGGLE RAM : SPACE PROGRAMS
E/X MOVE LINE : BACK TO OPA MM

ENTER SELECTS HIGHLIGHTED MODULES

To move from one to the other you need to use 'E' to go up or the 'X' to go down. Push ENTER on the selection highlighted or you can push the SPACE BAR to go to the programs page. When you do it will say with speech 'PROGRAM' and show this:

RXB/CART V1.21.9303.17 #3428751
PRODUCED BY OPA ©1993 BY R.L.B.

DISK MANAGER 1000

ARCHIVER V3.03

GRAPHIC EDITOR

REMINd ME!

TI-WRITER "EDITOR"

TI-WRITER "FORMATTER"

BEgin TOGGLE RAM : SPACE MODULES

E/X MOVE LINE : BACK TO OPA MM

ENTER RUN THE HIGHLIGHTED NAMES

I am using the TI-WRITER "EDITOR" to write this review. Here is a little information on each of these items.

1. DISK MANAGER 1000 This one is v6.1. It looks like the one I have on disk that was on the disk of the month #69 January 1993 as send out by the Central Ohio Ninety-Miners Inc. user group. But it will not copy the disk I am putting this review on. A little bug!

2. Archiver v3.03 is the archiver III - version 3.03g B/5/89. I tried to use this to un-archive and it would not work. Another bug!

3. Graphic Editor this is version 3.0 by Rejean Felton 1989 CLM 99 Montreal. This does not have any docs, so I can not use it now. Here is what is on it's master selection list:

1. DESIGN GRAPHIC
2. LOAD & SAVE
3. PRINT
4. CATALOG
5. LABELS
6. DEFAULTS
7. EXIT

4. REMIND ME! This is v1.2 (c) 1987 by John Johnson. This one does not have any docs, so us new TI users can not use it. This program makes a month of the year so you can put notes on the days you have something to do.

NEXT PAGE

5. TI-WRITER "EDITOR" This is like the other TI-WRITER that I have used and I am using it to do this review.

6. TI-WRITER "FORMATTER" This is the last on the program page, but it DOES NOT WORK. It looks like the TI-Formatter but it is the (1993 by D.P.A. V1.20.PC). On the top of The page is:

```

TI WRITER FORMATTER 5.0

Enter input filename:
'DSK1.POP/CART'
Enter printer devicename
'PID.LF'
Use mailing list ? 'N'
What page(s)? <ALL>
'A'
Number of copies: '1'
Pause at end of page? 'N'
    
```

(after all of this I get)

```

INPUT ERROR
WORKING....
PRESS ENTER TO CONTINUE
    
```

I have tried some of the DV 80 files that I used and also tried to print this review and it did not print out. This part of the pop/cart DOES NOT WORK, another bug.

I did find another page in the module. By using the 'FCTN 9' key you will get this:

O P A MICRO MANAGER V1.10.9102.27

```

-----
CART      :  TI BASIC
DSK 1    :  POP-CART PROGRAM MENU
DSK 2    :  RICH GK XB   V=5.40
DSK 3    :  RICH GK EA   V=5.40
          :  TI-WRITER
          :  DEFAULT OPTION TE II
          :  TERMINAL EMULATOR II
          :  HANGMAN
(*)      :
          :
          :
    
```

```

-----
          :
SPACE LEFT/RIGHT : BEGIN NEW DRIVE
E/X MOVE LINE   : BACK TO PARENT
          :
    
```

ENTER SELECTS DEVICE TO CATALOG

(*) This part will show more if you have a ram card in the expansion box.

This page will let you catalog a drive and go to a disk program. After I have some more information on this I will do another review.

I also found that the RICH GK X/BASIC V5.1 when I call up that program and push ENTER with no disk in the drive it tried to load DSK#.UTIL1 and you can not get out of that without turning off the computer. That is another bug.

Now here are some things that need to be looked at by Gary Bowser:

1. Need better docs so we know how to use it.
2. It needs a way to change the color of the screen.
3. It needs a way to exit or quit without a reset switch. Thats so you do not have to turn off the power to go into some other setup. I was in the CERTIFICATE '99 and I could not quit or get out of it. I had to turn off the computer. We all know doing that can be bad on our computer and disk files.
4. It needs better control of going down the main screen. it moves too fast and you have try some time to stop it at the line you would like to be in. The menu is all together too flashy and poorly written. It should resemble more the original ti menu.
5. When not in use or any key is not pushed it will put the screen black. This may make you think you have turned off the computer.
6. I tried to use the DSK#.UTIL1 part of the loading page and it would not load and I could not get out of the loading program. I had to turn off the computer.
7. The pop/cart should have gold plated connection that plugs into the module port of the console. Also the pop cart connection is a little smaller than the one that are used on the other cartridges that I have. If it had gold plated connectors it would make better electrical contact. I have some trouble with the contacts.
8. When I put in PAGE PRO 99 with the RICH GK X/BASIC it loads ok but when I try to load a page program the computer locks up.

I sent for some back issues of the MICROpendium and I found a MULTI-CARTRIDGE BOARD under development by OPA. My pop/cart is like that but smaller. You can see a photo of these on page 26 volume 6 number 10 of the nov. 1989 issues of MICROpendium.

At this time I can not say for someone to buy this cartridge when the person that made it can not send out the manuals on this cartridge. But if Gary Bowser reworks the bugs and sends some information on the programs that were put on the pop/cart and removed the program hang-man and put on a program like a disk jacket program I would say to buy it. I would then have all of the programs I will need to run on my computer without trying to finding a disk or a cartridge all of the time.

NOTE ADDED BY CHARLES GOOD

I have Martin's POP Cart on loan. The whole thing is packaged inside a Parsec game cartridge. All of the various bugs mentioned in Martin's article have been verified. Archiver packs, but doesn't ununpack. The Formatter doesn't work. DM1000 will display disk directories but won't copy disks either file by file or sector by sector. Etc, Etc. These problems are NOT found in the disk versions of the software. They are, perhaps, unique to the batch of pop carts purchased from Gary Bowser by L.L. Conner Enterprise at the May 1993 Lima MUG conference. Or maybe the problems are found on lots of pop carts.

****DONE****

FUNNELWEB V5 40 COLUMN EDITOR UPDATE:

A FIX FOR THE "FAILURE TO EXIT PROPERLY" PROBLEM.

a letter to the editor from Tony McGovern dated Aug 26

The "late July" Funnelweb v5 40 column editor was distributed with the August/September 1993 Lima newsletter. Several recipients of this software have reported the base line editor (not the one with All Chars and hard disk support) does not exit properly. Here is the fix, directly from Funnelweb's author.

"The old VRI value bug managed to sneak back into the base line 40 col ED. Use Disk Review or a sector editor to change >3081 in file ED (on the distribution disk it is called file ED/40) to >B081. A file search for string 3081 will find it at byte 6 of sector >10 (decimal 16). This is the one that does not appear on 80 column systems. Causes lockup on exit in 40 column systems. I will post notices to COMP.SYS.TI and on Delphi TI forum."

Another problem with the "late July" 40 column editors is the failure of R(eplace) S(tring) to work properly with word wrap turned off (ie. when showing an open cursor). This problem has not yet (Sept 15) been fixed. Replace String works properly with the 80 column v5 editor.

****DONE****

**FUNNELWEB'S DISK REVIEW SOMETIMES HAS TROUBLE
RECOGNIZING THE PRESENCE OF RICHGKXB**

by Charles Good
Lima Ohio User Group

RICHGKXB was extensively and very favorably reviewed in the July 1993 issue of Micropendium. It is an enhanced version of TI Extended Basic. The review stated that

RICHGKXB "starts with the Extended BASIC version that was produced by Miller Graphics for its GRAM Kracker. Added to it is an array of features..." I have on loan for testing purposes RICHGKXB v5.40. Unfortunately Funnelweb's Disk Review has trouble running extended basic software if you use either the original Miller Graphics GKXB or RICHGKXB.

When you display a disk directory from Funnelweb's Disk Review you should be able to move the cursor next to the file name of an extended basic program, press "R", and the XB program will load and run if extended basic is available in the module slot or in a gram device. Even IV254 extended basic software can be run this way. This always works properly for me using the TI extended basic module, and using TI Extended Basic and Art Green's GUMS menu system attached to TI Extended Basic Gram files running off of my PGRAM card. This feature of Funnelweb's Disk Review does not work reliably with either the original Miller Graphics GKXB (also known as "6K UTILITIES 1") or RICHGKXB.

If you boot Funnelweb from either of the GKXB's as DSK1.LOAD then there are no problems running XB programs from Funnelweb's Disk Review. If you boot Funnelweb any other way however, Disk Review will tell you XB MODULE NOT FOUND when you try and run some XB software from Disk Review and have either GKXB as the resident Extended Basic. Autoboot of Funnelweb on powerup from a Horizon Ramdisk, CALL FW from within RICHGKXB to boot Funnelweb from a Horizon Ramdisk, booting Funnelweb using RICHGKXB's Editor/Assembler, or loading Funnelweb from RICHGKXB's "Run Program File" option all result in the XB MODULE NOT FOUND problem. These results are based on my tests of RICHGKXB v5.40 contained in an O.P.A. Pop Cart and also RICHGKXB v5.40 loaded into my PGRAM card.

Since Funnelweb's Disk Review works just fine with plain old TI Extended Basic (both the XB module and the same thing as gram files in a PGRAM), I have to assume a modification to TI XB made by Miller Graphics and carried over into RICHGKXB is the source of the problem. If you don't use Disk Review to R(un) extended basic software, then you don't have to be concerned with any of the above.

Tony McGovern's reply to the above in a letter to me dated Aug. 26, 1993 (He is the senior author of Funnelweb): "I have RICHXB here, from the author. Haven't tried yet to see whether I can load it into my german gram module - it looks pretty much tied to the gramulator. At the XB-load from LOAD from Funnelweb the implementation is pure XB at the program level, but the DR load-XB uses Menu type absolute addressing into the GROMs. It may be possible to just change the pointers (they are kept separate as data) in FW for the addresses and data blocks (for E/A)."

****DONE****

Bits, Bytes & Pixels

LETTER TO THE EDITOR FROM BOB CARMANY

August 28, 1993

I have a letter from Tony McGovern in reference to a problem that I have been having with Funnelweb's XB4THLD program. That is the one that allows TI-FORTH to be loaded by Funnelweb. The program had been uncooperative lately and refused to load TI-FORTH although it did work at one time. It seems that at some point between Funnelweb v4.3 and v4.4 Tony changed the Save GPL Return in the Funnelweb reference block from >FF14 to >FF16. There was never any mention of the change in the F'WEB documentation. If any of your lot is having similar problems, use a sector editor and search file XB4THLD for >FF14 and replace it with >FF16. The string appears only once so it is an easy and quick fix.

While I'm at it, I'll pass along the color byte changes in some of the programs that I have altered. REDISKIT uses black on cyan (>17) and if you use DISKREVIEW and search for the hex string, select "N" for alignment and the first occurrence of the string is the color byte. Change it to the colors of your choice. Wayne Stith's CHARAFIX is a bit more complicated. The current color byte is >13. Use a similar procedure to change the first TWO occurrences in the EAS file named Y to your preferred colors. The first color bytes are for the edge characters and the second one controls the screen characters. Once again, I used white/blue as my preferred choice. WYCOVE FORTH uses >17 (black on cyan) and the first occurrence is the color byte. Change it to your preferred colors. Of course, make all of your changes to a copy and then test the program before you install it in your system.

****DONE****

PROGRESS WITH BRUCE HARRISON'S XB COMPILER
by Charles Good

Bruce is nice enough to keep me updated on the progress of his XD compiler project. This is really exciting. When finished it will be released to the public domain. His compiler now DOES handle sub programs, as well as multi line statements, ON...GOTO, PRINT to screen, GOSUB...RETURN, DISPLAY AT, CALL KEY, IF..THEN..ELSE..IF, CALL VCHAR, CALL MCHAR, and FOR..NEXT. You can break a compiled program as it runs with FCTN/4, and then enter CON to continue program execution just like regular XB. Bruce's compiled demos seem to run at least 3X faster than their uncompiled extended basic originals.

****DONE****

THE 1994 LIMA MULTI USER GROUP CONFERENCE

The next Lima 99/4A and Geneve computer show is scheduled for Friday and Saturday May 13/14 at the Ohio State University Lima Campus. Mark your calendars!

****DONE****

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```

DATA >00
DNAME TEXT 'DSK5.DSROMP1'
NXFILE EQU $-1
PABLEN EQU $-PABDAT
QUERY TEXT 'Which DSR CRU-base ?'
QUELEN EQU $-QUERY
PROMPT TEXT '>1000'
PRMLEN EQU $-PROMPT
DSAVN TEXT 'Dump to file'
DSAVL EQU $-DSAVN
EVEN
END START
    
```

Let's stop and catch our breath for a minute or two before we go ahead with the second part of this article.

Since we have gotten to the point where the facility is in place to retrieve DSRs from various peripheral devices. Where do we go from there? One of the more novel uses of an eeprom device is for the creation and production of custom cartridges for your system. How about ARCHIVER in a cartridge? or F*WEB? Or maybe even an A/L program that you wrote yourself. Let's look at that aspect of eeproming.

Eeprom cartridges can be created by using an appropriate PC cartridge board and either a 2764 (8K) or 27128 (16K) eeprom chip. TI made several boards that are suitable for this purpose but one of the easiest to use has the TI logo and serial # SK800805. The cartridge boards are scarce but TI might have some of them left. Call 1-800-TI-CARES or write to check on current availability and price. There are several traces to be cut, a couple of jumper wires, a 28-pin socket and a 1K resistor to be added and you are in business. The job takes about 20 minutes from start to finish and that includes letting the soldering iron warm up! I will be happy to help anyone who has the cartridge boards and wants to go from here. Just write.

Another interesting modification is to add a toggle switch that brings pins 27 and 28 to ground to create a double cartridge with the 16K 27128 chip. Then, if you simultaneously reset the console and flip the switch, you can select the second 8K of the cartridge. The net result is that you could have, for example, F*WEB and ARCHIVER in a single cartridge. The first 8K of code is programmed into the eeprom and then the second by stepping over the first lot with the appropriate starting address. It works great!!

All that you need to get started is a bit of source code to create a GPL header for your program. Once again, Ron Kleinschafer came up with one that does the job very neatly -- all in the space of 34 bytes!

- * GPL header for eepromed Quest
- * By Ron Kleinschafer
- * Change program name, name length and program length for other programs

<pre> AORG >6000 DATA >AA01 DATA 0 DATA 0 DATA LINK DATA 0 DATA 0 LINK DATA 0 DATA PROG BYTE 13 TEXT 'QUEST MANAGER' PROG LWPI >8300 LI R1,>1C58 LOOP MOV @@HERE-2(R1),@@>A050-2(R1) DECT R1 JNE LOOP B @@>A922 HERE EQU \$ END </pre>	<pre> AORG at cartridge address Validation and Version GPL link No more progs Point to program Length of display name Display name Use fast w/space Length of QUEST (or other program) Move it out to RAM (backwards) DEC word move Loop it all out Run QUEST. bypass 0460 >A922 at >A050 QUEST must start here in eeprom (or RAM) </pre>
--	---

This is a GPL header program for the Hunter Valley UG eprommer. Here are the specific changes that have to be made for other programs.

BYTE 13 Change this to the length in characters that you want to appear on the menu -- remember to count the spaces in the title as characters.

TEXT 'QUEST MANAGER' The actual screen title.

LI R1,>1C58 Change >1C58 to the length of the program as indicated when EPROM loads it.

B @@>A922 Change this to the entry point of your program

That is really all there is to it. These few modifications will allow you to program virtually any program under 8K in length into a 2764 eprom and plug it into your console.

The possibilities for creating your own utility or game cartridges is limited only by your imagination. It certainly gives you something to do on a cold, rainy evening.

Although these two articles were written from my experience with the Hunter Valley Eprommer, there are a couple of others that could be used. Mechatronic produced one and there might be some other non-commercial ones floating around out there. The only limitations are those imposed by the software that comes with the eprommer. An eprommer isn't for everyone but there is no reason why a Users Group shouldn't have access to at least one. It would certainly go far to protect the members' equipment. It is something to think seriously about.

****DONE****

EXCERPTS FROM A LETTER TO THE EDITOR ABOUT POWERING A 99/4A SYSTEM WITH AN INVERTER

August 26, 1993

If an octopus has eight tentacles, how many tentacles does a duopus have? Two, of course. The duopus is a crude ammeter for measuring the power (amps) taken by electrical appliances.

I got to thinking about the fact that all the remote places I might visit as part of my new job with the national park service would not have a convenient tap into 110 current that I "have to have" for running my 99/4A computer system. I was thunderstruck to begin reading your article titled "Power Your Entire System Almost Anywhere With An Inverter" (Aug-Sept 1993 issue of Lima newsletter). I almost concluded that it had been written through some divine inspiration.

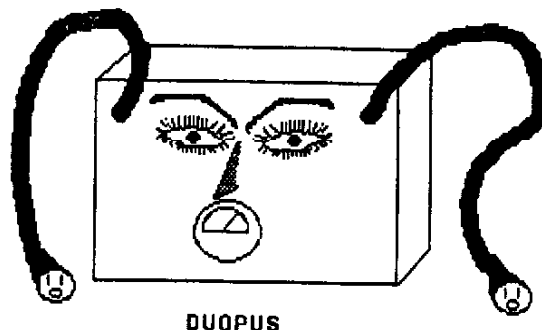
At any rate, armed with the Duopus my brother made for me I got readings from my equipment as follows:

Color TV-monitor 0.6 amp
Computer 0.25 amp
PE Box 0.8 amp
Printer (not printing) 0.25 amp
Printer (printing) 1.45 amp.
All units hooked up 2.2 amp.

According to my brother readings are inclined to be more accurate if there is a heavy draw, rather than a light one.

This would suggest that the last figure is more reliable than some of those above. In any event, he says there is no problem with relying on a good battery for a limited period of time and depending upon not unreasonable driving time to restore its charge from my truck's alternator.

Russell Ketcham
2900 E. Pleasant
Eden NY 14057



DUOPUS

****DONE****