WEST PENN 99ERS NEWS

Volume 11 Number 7   May 1996

FROM OUR MAILBOX

This month we will catch up on the remaining mail "From Our Mailbox".

Dear Mickey,

I saw in Charlie Good's column the review of your LOAD MASTER product. That sounds like a good thing for many users in our "community". Some time ago, I created my own version of a mixed XB/Assembly program which loads E/A Option 5 files from Extended BASIC. I'm passing along today the disk which contains the source code and sample program, in hopes you might be able to use some of this in the next phase of LOAD MAS-TER. This is pretty complex source code, as it must be to function as intended. It

will probably need lots of modification for use mixed in with your own code, but at least having my source code might give you some needed clues for your own. Enjoy!

Best Regards,

Bruce Harrison

5705 40th Place
Hyattsville, Maryland 20781

Dear Bruce,

Many, many, thanks for your kind generosity in sharing your program and source code with me.

Although your level of expertise is far above mine, I am definitely very interested in incorporating your E/A Option 5 loader into my Load Master program.

Thanks again for sharing your work with me!

Mickey

Dear Mickey,

Hello, I'm Olden Warren from the Bluegrass 99'ers in Lexington, Kentucky. I have read in your newsletter on several occasions

that you were attempting to write a program to utilize a mouse on the TI. I don't know if you recall any of the articles in my newsletter stating my desire to do the same thing, but I have developed several Assembly programs to link the mouse with the TI.

My first programs were written as Assembly links for XBASIC which allow a programmer to incorporate mouse input into his/her program. I much prefer the mouse to the joystick; besides, the rest of the computer world uses mice (or some facsimile thereof), so why shouldn't the TI join them? My not-so-secret desire has been to make the use of the mouse common-place with the TI as it is with other platforms I figure the more we can make the TI "keep up with the Joneses" (so to speak), the longer people will stick with it. I even have a far-reaching vision to emulate some of the PC-based Windows software on the TI because of its power and ease of use.

Recently I ran across something that I think could help make this "dream" come closer to reality. Buried in some archived files I have found a program called "Windows for c99" which was

written by Tom Bentley in 1987. It turned out to be a series of c99 libraries that allowed a programmer to implement a window environment in his/her program. After studying his work carefully (the source code was included). I saw a way to incorporate my mouse routines in it. It took a little doing (he wrote the code to run in text mode but the mouse works in graphics mode), but I succeeded! What you have on this disk is a sample of what my programs can do in XBASIC and in c99.

Since you seemed to share my interest in the mouse, I thought I would share this with you to get your opinion of it. I have included the files and the documentation to allow you to
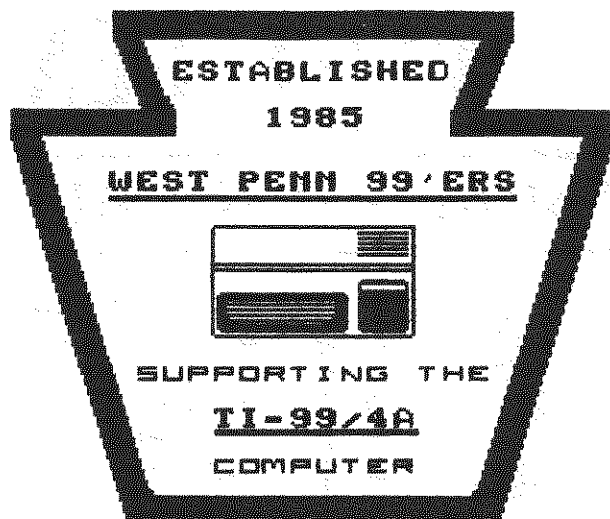
WEST PENN 99'ERS CLUB INFO

Next Meeting Date: May 21 1996

Meeting Location: Penns Woods
                          Civic Association

                          Just off Route 30

                          N. Huntingdon, Pa

Time of Meeting: 7:00 P.M.

GENERAL ITINERARY OF OUR CLUB'S MEETING

6:45 P.M.	Doors Open
7:00 P.M.	General Meeting
7:45 P.M.	Demos and New Info
8:45 P.M.	Questions and Answers
8:45 P.M.	One on One Help
8:45 P.M.	Socializing
10:30 P.M.	Doors Close

MEETING HIGHLIGHTS FOR THIS MONTH

Latest T.I. News - Software Discounts - And Show Reports

Latest News Concerning Our West Penn 99'ers Disk Library

Load Master Version 2.1 - Questions and Answers Session

Demo - The Southwest 99'ers' AMS Card - Demo by Norm Rokke

Handouts - Our West Penn 99'ers Membership Address List

LIST OF WEST PENN OFFICERS FOR 1996

President:	Mickey Cendrowski	412-265-5201
Vice-President:	Norm Rokke	614-264-6442
Treasurer:	Ed Mandich	412-824-5566
Recording Secretary:	Paul Brock	412-478-2754
Corresponding Secretary:	Paul Brock	412-478-2754
Librarian:	John Whelan	412-823-3312
Newsletter Editor:	Mickey Cendrowski	412-265-5201
Assistant Editor:	Mike Cendrowski	412-265-5201

ESTABLISHED 1985

WEST PENN 99'ERS

SUPPORTING THE

TI-99/4A

COMPUTER

The West Penn 99'ers Users Group is a Non-Profit organization, dedicated to encouraging the continued use of the TI-99/4A home computer.

Our membership fee is:

* $15.00 per year for an INDIVIDUAL / FAMILY membership.
* $10.00 per year for a NEWSLETTER ONLY membership.

Those having FULL memberships are entitled to the many extra benefits our club has to offer.

Some of those benefits are:

* Demos of the latest TI-99/4A software.
* Free copying of our West Penn 99'ers Disk Library.
* Latest T.I. news - Local - National - International.
* One on one help / Problem Solving.
* Participation in our Module Lending Library.
* Participation in our Video Lending Library.
* Ribbon re-inking - for just $1.00 per ribbon.
* Various computer supplies - at a substantial savings.

* Participation in our Coke / Pepsi Wars.
* And ... entertainment by one of the biggest TI-99/4A supporters around.

We meet the third Tuesday of each month at the Penns Woods Civic Association in North Huntingdon, Pennsylvania, at 7:00 P.M.

If you can't make it to our meetings ... at least become a NEWSLETTER member - and enjoy our NEW NEWSLETTER FORMAT - done ENTIRELY on a TI-99/4A computer.

SEE PAGE 10 FOR OUR WEST PENN MEMBERSHIP APPLICATION.

FOR THE RECORD
BY
## PAUL BROCK

APRIL MINUTES

Mickey called the meeting to order at 7:13 P.M. No corrections on the minutes. Corresponding Report was: I wrote Tom Jakabfy about the information that was in his March newsletter, about Gates & the TI. As of 4/16, I received no reply. We are all wondering if Bill Gates is really interested in the TI.

The Treasurer's report was very favorable there was a delay in the printing, Mickey had to go elsewhere to have the printing done. It seems to have worked out O.K. Ed also mentioned that there were a few new members joining the club, but I didn't get any names, but welcome to the best TI club in Western Pa. We also talked about most clubs switching to TI & IBM. The Atlanta U.G. wants to have a disk of the month exchange. There were only eleven members present. No volunteers at this time, but we will discuss this more at the May 21st meeting. We were goofing off as Mickey passed around a cartoon about the Treasurer.

Art showed up without Lynn, and Mickey was behind on her Pepsi. Mickey was fighting the flu, but she said that there was no way that she would miss a meeting! She also spoke of the School and how excited they were with their TI computers. Mickey and her husband, Mike, are teaching the teachers.

The demo for the evening was LOADMASTER V.2.1. It has a cataloging system, along with a disk sleeve printout. It will be ready along with documentation at the May meeting. As for the Artist Plus demo, if there is any interest I will attempt to demo it again. Some things just don't work out when they are supposed to.
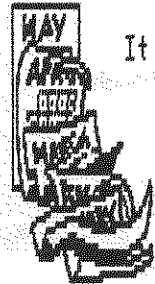
It's that time of the year to wish everyone a

HAPPY MOTHER'S DAY
and
MEMORIAL DAY!!!

---

cover the last used address (i.e. if the last used address is >6980 then you only have to do it twice).

15) Switch to the E/A cartridge, load the Editor and type in the following program:

```
    DEF START
    AORG >A000
START
    COPY 'DSK1.CART11'
    COPY 'DSK1.CART22'
        (if needed)
    COPY 'DSK1.CART33'
        (if needed)
    COPY 'DSK1.CART44'
        (if needed)
    END
```

Save this as "CART55" in VARIABLE 80 format. Load the Assembler and enter "CART55" as the source file, "CART66" as the object file and assemble under the "R" option. When it is finished, just load and run the program using "START" as the program name.

If it doesn't look right, use the editor and look at the first and last lines of the disassembled code to see if lines have been duplicated between files or left out. Correct any problems, reassemble and run.

Editors Note:

Sorry about the "flow" of this article's pages. I try very hard not to do this, but sometimes it just can't be helped!

DONATIONS REQUESTED

Mickey Cendrowski is still seeking DONATIONS of TI equipment, hardware, software, books, magazines, modules, etc., on behalf of Cheswick Christian Academy in Cheswick, Pennsylvania.

All donations are tax deductable.

Anyone wishing to make a donation may do so at any West Penn 99'er meeting, any Pittsburgh User Group meeting, or by phone at 412-265-5201, to make other arrangements.

Regretfully, Mickey does NOT have the funds to pay for any shipping (if anyone wishes to make a donation through the mail).

However, anyone wishing to make a donation through the mail to this good cause can include shipping charges in the dollar value of their donation when requesting a receipt for income tax purposes.

Ideally, the school would love to have 10 to 12 complete systems for school use.

Should more systems become available, they most likely will be "SIGNED OUT" to individual students to take home (much like a library book), so that the students might be able to continue their learning experience, once they go home.

UPDATING THE MEMBERSHIP

The West Penn 99'ers would like to acknowledge the following member for renewing his membership for the 1996 season...
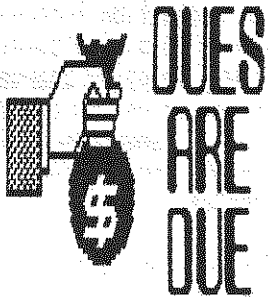
Lew King

In addition to the above, the West Penn 99'ers would also like to welcome their newest member...

Matt Juppo

who comes to us from the TI/PC Users Group of Puget Sound.

This brings our 1996 membership count up to 27 members.

Remember...

DUES ARE DUE

Please see Ed Mandich, our West Penn 99'ers Treasurer, to renew your membership.

If you can't make it to our meetings...at least become a NEWSLETTER member - and enjoy our NEW NEWSLETTER FORMAT - done ENTIRELY on a TI-99/4A computer. See page 10 for our application.

program for the mouse in XBASIC. I did not include the c99 libraries because I did not know if you programmed in that language and the libraries are a bit large. I did include demo programs that you can run to see what is possible. The c99 programs are E/A Option 5 files called WINDEMOMS and WINDEMOPC, depending on what type of mouse you have. As you will read in the mouse documentation file MOUSEDOCS, there are two types of mice, Microsoft (MS) and Mouse Systems (PC). If you are not sure which type of mouse you have, run the XBASIC test programs TESTMS and TESTPC; you should be able to tell which one you have after that. The instructions for running the c99 demo programs are contained in the README2 file on this disk.

I want to do a couple of things. First, I plan to contact Tom Bentley to let him know what I've done to his program as a courtesy since he is the original programmer. I have a 9 year old Canadian address for him; if you happen to know a current address please forward it to me. Second, I have been trying to reach Tony and Will McGovern of FunnelWeb to see if they would be interested in allowing me to convert FunnelWeb to use a mouse. I figure that many TI'ers use FunnelWeb so this would be a natural place to start, with something that is familar. I see their program as a springboard for other useful programs, similar to

the way Microsoft Windows is used on the PC platform. Last, I plan to convert the entire program into Assembly language for greater speed and compactness.

Try out the programs and let me know what you think. I'm not in it for the profit, fame or fortune (if I was, I'd be in real trouble!!). I just genuinely love to play with my TI and like to see it do things like this. If you are interested in helping me in this effort (or know of some others who may) contact me:

Olden Warren

4016 Weber Way
Lexington, Kentucky 40514

———

Dear Olden,

Wow, what a letter!

Where do I begin...

First, let me apologize for taking so long to respond to your letter. Although my intentions are always good, sometimes I get a bit behind in things - I know, I know, I shouldn't try to do so much, but I just can't help myself. I have a real helping nature and, like yourself, a real passion for the TI-99/4A computer!

I'm sorry that I don't have a current address for Tom Bentley, but perhaps someone reading this letter can provide you with one.

Although I have never had

the pleasure in talking with the McGoverns, I doubt that you will be able to convince them to share their source code with you, so that you can add mouse routines to FunnelWeb. No doubt, FunnelWeb is their baby, and they just might not appreciate an outsider messing with their program. (However, I agree with you that it would be great if FunnelWeb had mouse support since FunnelWeb is probably the most used program in the TI community!)

Your "V-I-S-I-O-N" of mouse products is very similar to mine. In my recent FAIRWARE program, "LOAD MASTER," I still envision adding mouse support, however, that will be a little ways down the road, after I'm done adding ALL the features that I've got in the back of my mind.

And...

Like yourself, I too would like to see my FINAL product written in Assembly language, for speed and compactness, HOWEVER, I do NOT know how to program in Assembly (or c99, for that matter), so I will have to find someone to do that for me.

Perhaps, if you know how to program in Assembly or c99, you may be willing to tackle this task.

Give it some thought.

Nickey

P.S. If you're going to the Cleveland show on May 25th, look me up!

MICKEY'S PRINTER COMMAND REFERENCE SHEET - 9605 - PAGE 1/4

Make of Printer Model Number of Printer	Alphacom 81	Axiom GP-100	Canon BJ-100	Canon BJ-200	Canon BJ-200e	Canon BJ-200ex	Canon BJ-230	Epson FX-80
Reset Printer			27 64	27 64	27 64	27 64	27 64	27 64
Condensed Print On Condensed Print Off			15 18	15 18	15 18	15 18	15 18	27 15
Double-High Print On Double-High Print Off		27 65	27 119 1 27 119 0	27 119 1 27 119 0	27 119 1 27 119 0	27 119 1 27 119 0	27 119 1 27 119 0	
Double-Strike Print On Double-Strike Print Off			27 71 27 72	27 71 27 72	27 71 27 72	27 71 27 72	27 71 27 72	27 71
Double-Wide Print On Double-Wide Print Off	27 14 27 15	14 15	27 87 1 27 87 0	27 87 1 27 87 0	27 87 1 27 87 0	27 87 1 27 87 0	27 87 1 27 87 0	27 87 1
Elite Print On Elite Print Off			27 77 27 80	27 77 27 80	27 77 27 80	27 77 27 80	27 77 27 80	27 77
Emphasized Print On Emphasized Print Off			27 69 27 70	27 69 27 70	27 69 27 70	27 69 27 70	27 69 27 70	27 69
High-Quality Print On High-Quality Print Off			27 120 1 27 120 0	27 120 1 27 120 0	27 120 1 27 120 0	27 120 1 27 120 0	27 120 1 27 120 0	27 120 1
Italics Print On Italics Print Off			27 52 27 53	27 52 27 53	27 52 27 53	27 52 27 53	27 52 27 53	27 52
Proportional Print On Proportional Print Off			27 112 1 27 112 0	27 112 1 27 112 0	27 112 1 27 112 0	27 112 1 27 112 0	27 112 1 27 112 0	27 112
Subscript Print On Subscript Print Off			27 83 1 27 84	27 83 1 27 84	27 83 1 27 84	27 83 1 27 84	27 83 1 27 84	27 83 1
Superscript Print On Superscript Print Off			27 83 0 27 84	27 83 0 27 84	27 83 0 27 84	27 83 0 27 84	27 83 0 27 84	27 83 0
Underline Print On Underline Print Off	27 69 27 82		27 45 n 27 45 n	27 45 n 27 45 n	27 45 n 27 45 n	27 45 n 27 45 n	27 45 n 27 45 n	27 45 1
1/6 Line Spacing 1/8 Line Spacing n/60 Line Spacing 7/72 Line Spacing n/72 Line Spacing n/144 Line Spacing n/180 Line Spacing n/216 Line Spacing n/360 Line Spacing			27 50 27 48 27 65 n -------- -------- -------- 27 51 n -------- 27 43 n	27 50 27 48 27 65 n -------- -------- -------- 27 51 n -------- 27 43 n	27 50 27 48 27 65 n -------- -------- -------- 27 51 n -------- 27 43 n	27 50 27 48 27 65 n -------- -------- -------- 27 51 n -------- 27 43 n	27 50 27 48 27 65 n -------- -------- -------- 27 51 n -------- 27 43 n	27 50 27 48 -------- 27 49 27 65 n -------- -------- 27 51 n --------

MICKEY'S PRINTER COMMAND REFERENCE SHEET - 9605 - PAGE 2/4

Make of Printer Model Number of Printer	Epson MX-80	Epson LX-800	Epson Stylus 800	Epson Stylus 850	Gemini 10-X	Gemini SG-10	Hewlett-Pac Deskjet 310	Okidata 180
Reset Printer	--------				27 64	27 64	27 69	
Condensed Print On Condensed Print Off	27 15				27 15	27 15		
Double-High Print On Double-High Print Off								
Double-Strike Print On Double-Strike Print Off	27 71				27 71	27 71		
Double-Wide Print On Double-Wide Print Off	27 14				27 87 1	27 87 1		
Elite Print On Elite Print Off	-------- --------				27 66 2	27 66 2		
Emphasized Print On Emphasized Print Off	-------- --------				27 69	27 69	27 40 115 50 81	
High-Quality Print On High-Quality Print Off	-------- --------				-------- --------	27 66 4	27 40 115 49 83	
Italics Print On Italics Print Off	-------- --------				27 52	27 52	27 40 115 49 80	
Proportional Print On Proportional Print Off	-------- --------				-------- --------	27 112		
Subscript Print On Subscript Print Off	-------- --------				27 83 1	27 83 1		
Superscript Print On Superscript Print Off	-------- --------				27 83 0	27 83 0		
Underline Print On Underline Print Off	-------- --------				27 45 1	27 45 1	27 38 100 64	
1/6 Line Spacing 1/8 Line Spacing n/60 Line Spacing 7/72 Line Spacing n/72 Line Spacing n/144 Line Spacing n/180 Line Spacing n/216 Line Spacing n/360 Line Spacing	27 50 27 48 -------- 27 49 27 65 n -------- -------- -------- --------				27 50 27 48 -------- 27 49 27 65 n 27 51 n -------- -------- --------	27 50 27 48 -------- 27 49 27 65 n 27 51 n -------- -------- --------	-------- 27 38 108 8 68 27 40 115 n 86 -------- -------- -------- --------	

MICKEY'S PRINTER COMMAND REFERENCE SHEET - 9605 - PAGE 3/4

Make of Printer Model Number of Printer	Okidata Micro 181	Okidata Micro 320	Okidata	Panasonic KX-P1091	Panasonic KX-P1123	Seikosha GP-550A	Seikosha SP-1000AP	Seikosha SP-2000AP
Reset Printer			24	27 64	27 64			27 99
Condensed Print On Condensed Print Off			29	15 18	15 18	27 67		27 113
Double-High Print On Double-High Print Off					27 119 1 27 119 0			
Double-Strike Print On Double-Strike Print Off			27 72	27 71 27 72	27 71 27 72			
Double-Wide Print On Double-Wide Print Off			31	27 87 1 27 87 0	27 87 1 27 87 0	27 14 27 15		14 15
Elite Print On Elite Print Off			28	27 77	27 77	27 69		27 69
Emphasized Print On Emphasized Print Off			27 84	27 69 27 70	27 69 27 70	27 35 27 36		
High-Quality Print On High-Quality Print Off			27 49	27 110				27 72
Italics Print On Italics Print Off			-------- --------	27 52 27 53	27 52 27 53	27 66		27 105 49 27 105 48
Proportional Print On Proportional Print Off			-------- --------	27 111	27 112 1 27 112 0	27 80		27 112
Subscript Print On Subscript Print Off			27 76	27 83 1 27 84	27 83 1 27 84	27 68		27 98 50 27 98 48
Superscript Print On Superscript Print Off			27 74	27 83 0 27 84	27 83 0 27 84	27 85		27 98 49 27 98 48
Underline Print On Underline Print Off			27 67	27 45 1 27 45 0	27 45 1 27 45 0	27 88 27 89		27 88 27 89
1/6 Line Spacing 1/8 Line Spacing n/60 Line Spacing 7/72 Line Spacing n/72 Line Spacing n/144 Line Spacing n/180 Line Spacing n/216 Line Spacing n/360 Line Spacing			27 54 27 56 -------- -------- -------- 27 37 57n -------- -------- --------	27 50 27 48 -------- 27 49 27 65 n -------- -------- 27 51 n --------	27 50 27 48 27 65 n -------- -------- -------- 27 51 n -------- 27 43 n	27 54 27 56 -------- -------- -------- -------- -------- -------- --------		27 65 27 66 -------- -------- 27 84 n -------- -------- -------- --------

MICKEY'S PRINTER COMMAND REFERENCE SHEET - 9605 - PAGE 4/4

Make of Printer Model Number of Printer	Seikosha SP-1000AS	Seikosha SP-1200AS	Star NX-10	Star NX-15	Star NX-1000	Star NX-1001	Star NX-2420	TI-99/4A PHP 2500
Reset Printer	27 64	27 64	27 64		27 64	27 64	27 64	64
Condensed Print On Condensed Print Off	15 18	15 18	15 18		15 18	15 18	15 18	15 18
Double-High Print On Double-High Print Off			27 104 1 27 104 0		27 119 1 27 119 0	27 104 1 27 104 0	27 119 1 27 119 0	
Double-Strike Print On Double-Strike Print Off	27 71 27 72	27 71 27 72	27 71 27 72		27 71 27 72	27 71 27 72	27 71 27 72	27 71 27 72
Double-Wide Print On Double-Wide Print Off	27 87 1 27 87 0	27 87 1 27 87 0	27 87 1 27 87 0		27 87 1 27 87 0	27 87 1 27 87 0	28 69 1	14 20
Elite Print On Elite Print Off	27 77 27 80	27 77 27 80	27 77 27 80		27 77	27 77 27 80	27 77	
Emphasized Print On Emphasized Print Off	27 69 27 70	27 69 27 70	27 69 27 70		27 69 27 70	27 69 27 70	27 69 27 70	27 69 27 70
High-Quality Print On High-Quality Print Off	27 120 1 27 120 0	27 120 1 27 120 0	27 120 1 27 120 0		27 120 1 27 120 0	27 120 1 27 120 0		
Italics Print On Italics Print Off	27 52 27 53	27 52 27 53	27 52 27 53		27 52 27 53	27 52 27 53	27 52 27 53	
Proportional Print On Proportional Print Off	27 112 1 27 112 0	27 112 1 27 112 0	27 112 1 27 112 0		27 112 1 27 112 0	27 112 1 27 112 0	27 112 1	
Subscript Print On Subscript Print Off	27 83 1 27 84	27 83 1 27 84	27 83 1 27 84		27 83 1 27 84	27 83 1 27 84	27 83 1 27 84	
Superscript Print On Superscript Print Off	27 83 0 27 84	27 83 0 27 84	27 83 0 27 84		27 83 0 27 84	27 83 0 27 84	27 83 0 27 84	
Underline Print On Underline Print Off	27 45 1 27 45 0	27 45 1 27 45 0	27 45 1 27 45 0		27 45 1 27 45 0	27 45 1 27 45 0	27 45 1 27 45 0	
1/6 Line Spacing 1/8 Line Spacing n/60 Line Spacing 7/72 Line Spacing n/72 Line Spacing n/144 Line Spacing n/180 Line Spacing n/216 Line Spacing n/360 Line Spacing	27 50 27 48 -------- 27 49 27 65 n -------- -------- 27 51 n --------	27 50 27 48 -------- 27 49 27 65 n -------- -------- 27 51 n --------	27 50 27 48 -------- 27 49 27 65 n -------- -------- 27 51 n --------		27 50 27 48 -------- 27 49 27 65 n -------- -------- 27 51 n --------	27 50 27 48 -------- 27 49 27 65 n -------- -------- 27 51 n --------	27 50 27 48 -------- -------- -------- -------- -------- -------- 27 43 n	27 50 27 48 -------- -------- 27 65 n -------- -------- -------- --------

COPYING A CARTRIDGE TO DISK

Reprinted From The
FDLCC Newsletter

Edited by Olden Warren
Bluegrass 99'ers

To do this, make sure you have Extended BASIC, the TI Disassembler and a cartridge with ROM chips only. You can find out by opening it up and looking at the chips. If it has all large chips, then it is ROM only. If it has any small chips then, too bad, you have GROM which hasn't worked for me since the code is in GPL. A Widget can be used to switch between cartridges or you can cover Pin 1 of the cartridge being copied with tape (Pin 1 is the rightmost pin on the bottom side). Also, a printer would be convenient to have but not necessary.

1) Cover Pin 1 of the cartridge being copied (not necessary if you have a Widget).

2) If you have a Widget, plug E/A in Slot 1, the cartridge you want copied in Slot 2 and Extended BASIC in Slot 3.

3) Make sure that you have a totally blank disk ready, which you will be using to copy the cartridge onto.

4) Switch over to the E/A cartridge (either with the Widget or just insert it), insert E/A diskette "A", select "LOAD AND RUN" and enter "DSK1.DEBUG". When it is loaded, press ENTER and type "DEBUG" for the program name.

5) When the debugger prompt appears switch over to the cartridge being copied (Slot 2 on the Widget or insert it with Pin 1 covered). Make sure the computer doesn't reset. If if does, make sure Pin 1 is deactivated and start over. Now, make sure the debugger is still operative (press ENTER a couple of times).

6) Now type in "M6000 8000" and press ENTER. The screen should start scrolling upward and display different kinds of numbers. If all you get is "6000=00 00 00 00 00 00 00 ✗✗✗✗✗✗✗✗✗✗✗✗" or zeroes only, make sure you have a ROM-only cartridge and that you are switched over to the cartridge being copied (or that it is inserted). Otherwise, you should be getting all kinds of numbers. You will probably see the title of the cartridge in the first few lines on the right. Now, let the screen display the numbers for a while and make sure that everything is OK. Make a note of the last address used in the program (zeroes will trail the last used address).

7) Press QUIT to go back to the main title screen.

8) Load the E/A, select "LOAD AND RUN" again,

insert the diskette with the TI Disassembler on it and load it.

9) Press ENTER once, type "START" and ENTER. The disassembler title screen should appear. Now, switch over to the cartridge being copied (or plug it in again). Make sure it doesn't reset or otherwise stop the machine. For the starting address, enter "6000", for the ending address enter "6500". Insert the diskette you want to copy it on, type "DSK1.CART1" for the device name and press ENTER to start the disassembly process. The disk drive comes on and the disassembled code should appear on the screen. To pause the disassembling, press any key; press it again to continue. When the number on the left equals >6500 (or around that number) the screen will stop scrolling. Press ENTER twice for the E/A menu.

10) Press QUIT. Switch to the Extended BASIC cartridge, load it and enter the following program:

```
100 CALL CLEAR
110 INPUT "SOURCE FILE?">DSK
    1.":A$
120 INPUT "OBJECT FILE?">DSK
    1.":B$
130 OPEN #1:"DSK1."&A$,VARI
    ABLE 80,INPUT
140 OPEN #2:"DSK1."&B$,VARI
    ABLE 80,OUTPUT
150 LINPUT #1:C$
160 D$=SEG$(C$,6,27)
170 PRINT #2:D$
180 IF EOF(1) THEN 200
190 GOTO 150
200 PRINT "FINISHED"
210 CLOSE #1 :: CLOSE #2
```

220 DELETE "DSK1."&A$

11) Run this program. For the source file input "CART1"; for the object file input "CART11". If you receive an error check to see if you have the right disk inserted and that the source and object files are valid. If that isn't it, check to see if you have enough disk space available. When done, press QUIT.

12) Switch to the E/A cartridge, insert the "A" diskette, select the Editor and load in the CART11 file.

13) When loaded, press FCTN 9 to get the Editor command list. Select "R" for replace, then type in "V,1000 /6/A/" and press ENTER. Now press "Y" whenever the cursor stops on an instruction (i.e. LI, JMP, SB, CB, B, A, BLWP) that has a "6???" in it. Don't change DATA statements or ones that only have 2 digits ("6?"). After completing the last one, repeat this step using "V,1000/7/B/" as the replacement string. When finished, save this file in VARIABLE 80 format on the Editor command list.

14) Do steps 8-13 again, changing the starting address in the disassembly step to 6500, the ending address to 7000 and the filenames to "CART2" and "CART22"; the third time use 7000, 7500, "CART3" and "CART33"; the fourth time use 7500, 8000, "CART4" and "CART44". You only need to do this enough times to

WP MEMBERSHIP APPLICATION

Name _____

Address _____

City _____ State _____ Zip _____

Please Check One

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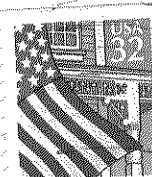Library Privileges
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NEXT

MEETING   MAY 21st   7:00 P.M.

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