RamDsk with SmartBasic v1.1 Rev.88
32 Column & 40 Column Versions

Internal Expansion Slot #2 Boot PROMs
for Multi-Purpose Interface Board (MIB) 2, 3, 238 & 238-WiFi

HISTORY:

- RamDisk by Walters Software Co. (1986)
- SmartBasic Corrections by ADAM Community (1983-1995)
- Boot Prom Loader with Menu by Eric Pearson (2022)
- Boot Prom instructions by John Lundy (2022)
- RamDisk Boot Prom assembled by NIAD (2023)

RAMDISK BOOT PROM 32 & 40 COLUMN VERSIONS:
Some additional corrections where made to SmartBasic so the revision was increased by one to Rev. 88. To view the revision number in SmartBasic, at the prompt type:

PRINT PEEK(260)

Aside from that, all I did was overlay this newer version of SmartBasic with built-in ramdisk drivers to the Boot Prom made available by Eric Pearson, test to make sure all was working properly and put together this documentation.

This Boot Prom can be used in ADAMem DOS v1.81, ADAMem SDL v1.81 or higher, the latest version of MAME which has very good ADAM emulation and any other future ADAM emulators that may be developed that support Expansion BOOT ROMS. NOTE that the file has to be renamed to EXP.ROM and placed in the ADAMem directory. For MAME, follow the instructions that they provide.

The IDE Hard Drive drivers and Hard Drive menu program is NOT compatible and numerous issues will arise if you try to use them with this and other EOS ramdisk programs.

BOOT PROM LOADER & MENU:

Great news for all MIB3, MIB238, MIB238-WiFI, MI Printer cards, or any other center slot card with a compatible boot PROM socket available that I might be forgetting. Eric Pearson has created an E/PROM image that can boot your console directly to SmartBASIC! This 27256 (32K) image installed in the boot PROM socket will boot the console to a menu to select either:

1 - SmartBASIC (4) = defaults to disk drive #1 to load HELLO program
2 - SmartBASIC (8) = defaults to tape drive #1 to load HELLO program
3 - SmartWriter = exits to SmartWriter Word Processor

He has created two separate versions (available on Eric's GitHub page or The ADAM Archive at www.adamarchive.org), one for normal SmartBASIC v1.1 (Rev. 87 by Jim Walters) and one for SmartBASIC v1.0 (Rev. 79 by Coleco) with AJM Parallel Printer port patch applied, which seems fitting when installed in an MIB or other Parallel card.

NOTE: Jumper configuration for all MIB238 cards is 5-6 and 9-10 for 27256 (32k) E/PROMs. I suspect this setting is the same for Micro Innovations cards as well, but not positive, so verify in those instructions.

More information on the MIB238 and how to build one can be found on Eric Pearson’s github page at https://github.com/epearsoe/MIB238

If you’re not up to building your own, I currently have some MIB238-WiFi cards in stock on my website for sale at https://lundyelectronics.com/shop/

I'm sharing this with Eric's blessing while he's currently swamped at work to get this out sooner to everyone. I’m sure he’ll have something more official on his MIB238 github page when time permits.

RAMDSK:

The RAMDSK program has been updated with a new feature. This will give you the option to initialize the 64K - 1Mb Memory Expander or leave it as is. You can load the RAMDSK program, transfer programs to the Memory Expander ramdisk and do some work. Then you can load Buck Rogers and play a few rounds. When you are finished with Buck Rogers, reload the RAMDSK program and choose not to initilize the Memory Expander and your programs will still be there ready to use.

1. Turn on your ADAM computer.
2. RAMDSK Boot Prom will display a menu, make your choice
3. Wait until the title screen appears.
4. You should see this screen.

```
              WALTERS SOFTWARE CO.
                   PRESENTS
                RAMDSK (C) 1987

          PRESS ESCAPE KEY TO PREVENT
          INITIALIZATION OF RAM DISK.

              PRESS ANY OTHER KEY
                  TO CONTINUE.
```

5. If you have previous loaded programs in the RAMDSK and have not run a program that uses the Memory Expander, you can restore them by pushing the ESCAPE/WP key. ** NOTE SmartWriter, ADAMCalc and CP/M 2.2 use the Memory Expander.

6. If you wish to initialize the Memory Expander push any key other than the ESCAPE/WP key.
7. SmartBasic will now look for a HELLO program on your tape or disk. If you have a HELLO program on your media it will be loaded and run.
8. If no HELLO program is found (SmartBASIC V 1.1) will be displayed on your screen.
9. You are now ready to begin and can access the ramdisk via any Input or Output commands like LOAD, SAVE, BLOAD, BRUN, BSAVE, CATALOG, etc. For example type and then press the RETURN key: CATALOG,d7

ADDITIONAL SmartBasic v1.1 Rev. 88 FIX:

This SmartBasic correction can not be patched directly to the SmartBasic machine language program and should be entered and then saved with the filename HELLO or included within your own programs if you will be using the BSAVE command:

```
10 REM *** BSAVE corrections
15 POKE 19459, 34:POKE 19460, 249
20 DATA 16601,63817,19585
25 FOR x=1 TO 3:READ adr:POKE adr, 35:POKE adr+1, 249:NEXT
30 DATA 16604,19558,19563,19576,19595
35 FOR x=1 TO 5:READ adr:POKE adr, 73:POKE adr+1, 249:NEXT
40 POKE 19566, 72:POKE 19567, 249
45 POKE 21019, 11
```

Look over the POKES, PEEKS and CALLS LIST FOR SMARTBASIC V1.0 for other changes and improvements that can be included in the above listing. I have not patched them in already to provide compatibility with as many of the availble SmartBasic programs as possible. For instance add this line to the above program to change CONTROL-C keypress (breaks the current program or operation) to the ESCAPE/WP key:

```
50 POKE 16134,27
```

It's best not to make this change in case a program written by someone else uses the ESCAPE/WP key for some other function. However, for your own programs, this would be perfectly fine.

Another change that I like is to change CONTROL-S (Pause screen or program operation) to the WILDCARD key:

```
55 POKE 16135,144
```

But again, for compatibility with existing programs, one has to ensure that the WILDCARD key is not used within said program for some other function.