

Adam

INFINITUM

(Chapter 16 - ADAM Survival Guide)



(Misc. Information about the Coleco ADAM)
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NOTE: This is a re-creation from a text file. The original was not available to PDF. This is an excerpt from a larger publication called the ADAM Survival Guide. ADAM INFINITUM was listed as Chapter 16.

What you are about to read is a compilation of little known and well known facts about ADAM, the system, and its software. Personally, I take no credit for "discoveries" of any of what you about to read. In fact, most of these "discoveries" probably happened by accident, or by the efforts of dedicated ADAM "hackers".

The following information was culled from ADAM newsletters, contributions by fellow users and "messages" from a power greater than mere mortal men! (No, not Barry Wilson).

If indeed we can continue to upgrade and print future ASG issues on a regular basis, (maybe every two years or so), I will need as many of these tips, tricks, and hints as you can send me! Please share your information by sending them to me.

Richard Lefko

(Find addresses in the "IMPORTANT NAMES AND ADDRESSES" CHAP.)

Special thanks to the following who helped make this chapter possible: PJ Herrington and the MOAUG newsletter, (Metro Orlando ADAM User Group); NIAD, (Northern Indiana Adam user group); ECN, (Expandable Computer News, which is no longer available); PSAN, (Puget Sound Adam Network), and John Harris.

I make no guarantees about the "facts" you are about to read. Many of these "facts" are untried by me personally, so I cannot readily attest to their accuracy.

ADAM's operating system was developed by Infsoft, and is labeled I/OS.

The ADAM printer was manufactured in Northern Ireland.

If you have a disk drive you must turn it on before ADAM in order for ADAM to recognize it. (Using one master switch for the whole setup works just fine too.)

The original ADAM disk drive was manufactured by Micro Peripherals, Inc. (M.P.I.)

If you have an ADAM disk drive, you won't forget to remove a disk at the end of a work session if you place a small strip of fluorescent tape on the upper lip of the disk door. The tape will only be visible when the door is down. When look in at your "shut down" system as you put all tapes, disk etc. away, see if you can see the tape; if not, close the door.

To increase the life of new printer ribbons, store them in the refrigerator. However, you should wait about three hours after removing a ribbon to use it.

Locking up of the entire system or getting strange lines across the screen may be a sign of heat build-up. Buy a small fan to keep air moving around your ADAM.

It is recommended that you occasionally, (with the power off), disconnect and reconnect all of year cables to be sure they are making a good connection.

If your disk drive power transformers quit, try either TRAK or ATARI part number C017945 transformers, these seem to work fine.

Switching to MANUAL RECALC while using ADAMCalc makes the program work more quickly.

Sometimes placing aluminum foil under a television that's being used as a monitor will cut down on interference.

ADAM's CP\M 2.2 was written by Digital Research.

ADAMCalc written by Laser Microsystems.

There is a special set of questions about the authors on the public domain JEOPARDY game tape/disk. To access these question do the following: After booting your media and getting to the point where it asks whether you are using a

question pack, hold down the control key and press the "up" arrow key, then the "right" arrow key, followed by the "down" arrow key and finally the "left" arrow key. The special questions will then be loaded.

If you load a defective Data Pack and the drive just keeps tuning, don't turn your ADAM off, just pull the CARTRIDGE RESET switch.

If you load a defective disk and the drive just keeps turning, don't turn your ADAM, Just remove the disk.

If your daisy wheels need cleaning just soak them in 11% isopropyl alcohol, (rubbing alcohol), for 5 to 10 minutes then wipe with a paper towel and air dry.

If a data pack fails to read or write properly remove it from the drive, place it in the palm of your hand and gently slap it down on a flat surface. Then try to load from it again. This sometimes straightens out the tape on a reel, and this sometimes clears up the problem.

To print out only one record at a time from a SMARTFiler list of records, (ie: mailing labels or envelopes), try the following: When creating your format in SMARTFiler add carriage returns until you can't add anymore, (ADAM buzzes); move your cursor up two lines and enter a period.

ADAM will now stop printing after each record allowing you to change the envelope, paper, etc.

DISK MANAGER will only run software that would normally run if the reset button were pulled.

ADAM user upgrades of the DISK MANAGER have installed routines for printing from Smart WRITER, etc., on a dot matrix printer. These variations also allow double wide, compressed, sub/superscripts, etc., for the DM printer. Contact your user group for more information.

The ATARI defender cartridge game does not work properly on an "ADAM stand alone".

Data packs, with one directory block, will only store 35 entries. Each additional directory block will allow 39 more file entries.

To check the revision of just about any original COLECO software, hold down the control key and press the "R" key just after booting. Version 15 is good for DISK MANAGER, 27 for SMARTFiler, 12 for ADAMLink, 5 for AUTODIALER, and 14 for RECIPE FILER.

If you were unable to purchase an original dust cover for your ADAM, try a VCR cover. A second one will take care of your keyboard and disk drives.

Digital data packs look very much like audio tapes, but that is where the similarities end. There are important differences so do not try to use audio tapes in place of Digital Data Packs. In particular, 'BLOCK NUMBERS' are written on DDP tapes.

To convert an audio tape to a an ADAM DDP, use the MEGACOPY hardware/software device, by Syd Carter of Canada.

Unplug your ADAM power supply, disk drives and any other electrical components when a thunderstorm approaches. A surge suppressor is recommended. I near-miss lightning strike will cause a power surge in the lines that can jump or 'fry' even an "open" electric switch.

To view the 'secret screen' in ADAMCalc, load ADAMCalc, and when the screen asks if you'd like on-line help, don't answer. Instead, press the 'up' and 'right' arrow keys at the same time; then type is the word, surfnazi, all lower case, no punctuation. You may need to try It a couple of times.

If you have two Digital Data Drives and opening the door to one causes the second to pop open, you probably installed the second one a little crooked, and the second door is rubbing against the first door. Loosen the mounting screws and move the right drive to the right. If not fixed, move the left drive to the left.

FILE MEMORIES:

The EOS DIRECTORY is in block 1 etc. The number of blocks to reserve for the directory during the INIT process can be specified as any value from 1 to 127. (See Chapter on SMART BASIC). EOS directory entries specify the exact block number of the beginning of each file, and the length of the file. Thus all blocks of that file are consecutive.

THE CP/M DIRECTORY is in block 13, and the block numbers of each file are added to 13 in order to get the actual block number where the file can be found on the media. The block numbers are all listed in their directory under the filename in the order in which the data was written to the media. Therefore the first block of the file might be on block 14, the second on 43, the third on 27, and etc., this making the use of media space much more efficient than that of the EOS directory.

THE TDOS DIRECTORY is found in media block 13, 14 etc. The number of blocks reserved for the directory depends upon the size of the drive in which it is used. The method of deriving the actual block number of a file on the media, follows the same pattern as that of the CPM directory, but large drives use a factor of 2. In other words, when a directory block is determined, it actually means that block number and the one following. This makes more efficient use of directory space, than that of CPM.

In CPM pressing a SHIFT and the UNDO key will turn the SmartKEYs at the bottom of the screen off. A repeat of this key press combination will turn them back on.

T-DOS, replaces CP/M and makes it a lot more user friendly than the original CP/M.

T-DOS will utilize memory expanders of any size available to ADAM, and will print directly to ADAM or a dot matrix printer, and will address any disk drive or hard drive connected to the ADAM, regardless of the sizes thereof.

Several originally planned ADAM-CP/M programs have been converted to run on T-DOS on the ADAM. Wordstar 4.0 is one of the best; and one who uses WS 4.0, will return to SMART WRITER only out of dire necessity.

The software that comes with the ADAMLink modem, (ADAMLink I), does not support up/down loading. however, there is an upgrade called ADAMLink II which does support up/down loading. Most user groups can supply you with a copy of ADAMLink II.

Modem programs that are much more advanced than ADAMLink II are presently available for ADAM.

Advanced modems are available for the ADAM. Contact your user group, and check several sources for more information.

When transferring a SMART WRITER file to T-DOS or CPM, unwanted spaces appear in the text. to remove these, use the SEARCH AND REPLACE function of your word processor. SEARCH for 5 spaces, and REPLACE then with 1 space. Then search for 4 spaces and replace with 1, etc.

Sometimes when transferring a SMART WRITER file to T-DOS or CPM, unwanted RETURN codes are also found. Wordstar 4.0 can remove these also as well as can some other T-DOS editors. Otherwise they are removed with the "manual SEARCH AND REPLACE function. Manual means that the user does it with his own "manos" or hands).

SMARTBASIC INFORMATION

NAMES FOR SMART BASIC. In various conversations and writings among ADAMites you will see SMART BASIC referred to by various names. Since BASIC is a system of programming, not by any means unique to ADAM, (SMART BASIC being the name chosen by Coleco for their version), many of these names have been learned

by ADAMites from other sources. Many of them are just "thought up" as one talks or writes along. These are only two versions of basic used in the ADAM EOS system, although in the T-DOS-CPM operating system there are several possible, if conversions are made.

SmartBASIC is the name of the basic program that comes with the new ADAM.

BASICPGM, or BASICPGM2 are names derived from the filename for SMART BASIC used in the DIRECTORY of the ADAM BASIC tape.

SMART BASIC Ver. 2, and variations of that name refer to an advanced version of BASIC which was never released by Coleco, but which seems to work quite well.

".BAS" is the TDOS-CP/M filename extension used in filenames to show that the file is a basic file, but does not necessarily specify the version of BASIC to which it pertains.

BAS is another shortening of the name, and there are many others.

The above probably reflect the sort of commonly used names, so don't be confused with the jargon of these ADAMites.

To find out which revision of SMARTBASIC you have, type in the following: "PRINT PEEK (260)", exactly as shown inside of the quotes, and press return. The number 79 or above should appear. If not, have it replaced by a user group.

When programming in BASIC you can use the MACRO symbol "?" instead of typing in the word "PRINT".

Do not use your original BASIC media for loading BASIC. Use it only for making backup copies. In that way you can feel free to use many of the copies to store your files, saving a lot of media-switching when loading BASIC files and programs.

If you have two Data Drives, always boot EOS

programs from Drive #1 until you become familiar with them. Many programs look for data on this drive. However, your BASIC media may be altered internally to look for the HELLO program on any drive you wish. Contact your user group for information.

The easiest way to determine if a media is self booting, (self loading), is to place it in a drive and pull the reset. This is called "booting". If it 'boots', then it has a 'boot' routine installed on block 0 of the media.

Type 'CATALOG' in basic to get a display of the directory of a DDP/DISK.

A different word, (like "DIR", as used in CPM and TDOS), can replace "CATALOG" to get the directory display in BASIC. This is done by making a temporary or permanent change to your copy of BASIC. "DIR" is so much easier to type that many ADAM users have made the change. With "DIR" the same command is used in BASIC, CP/M and TDOS. Contact your user group for more information.

Filetype designations appearing when the directory is displayed in BASIC are: "A" - A BASIC file, "a" -A BASIC backup file, "H", "h" - These files may be saved in a binary form or these may be SMARTWriter files. "*" means a file is 'locked'.

If you find an "H" type file in the DIRECTORY, and it is a BASIC binary file, type "BRUN <filename>", and press "RETURN". If it doesn't run, (and you may get an error message, 'UNDEFINED STATEMENT ERROR', at the same time), type in "RUN" and press 'RETURN' again. If it still doesn't RUN, then either you are mistaken and it is a SMARTWRITER file, or else it is a BASIC binary data file, which would ordinarily be CALLED to be loaded from within a program for use by that program. An example of the latter might be a file containing an ML routine which one of your BASIC programs uses.

If you get an error message like, "FILE TYPE

MISMATCH", try BRUNing the file.

Data drive 1 is "D1" in BASIC, data drive 2 is "D2", Disk drive 1 is "D5", and Disk drive 2 is "D6".

The data drives are designated A, B, C, D, and M when using CPM. TDOS gives the user some control over the names of the drives.

To turn on the ADAM printer when in BASIC type "PR#1" and press 'RETURN', or put a PR#1 statement in one of your BASIC command lines. Any PRINT statements effected after that point will be sent to the ADAM printer. Typing 'PR#0', either in immediate mode, or into the BASIC program, will cause subsequent print out to go to the screen only, canceling the effect of PR#1.

To feed characters to a parallel printer when in BASIC, a routine most first have been installed into your BASIC program, (preferably on the media). It is generally designed to operate with the "PR#2" instruction. With it installed, and a parallel printer attached through an appropriate interface, type "PR#2" and press "RETURN", or put a PR#2 statement in one of your BASIC command lines. Any PRINT statements effected after that point will be sent to the parallel printer. Typing "PR#0", either in immediate mode, or into the BASIC program, will cause subsequent printout to go to the screen only, canceling the effect of PR#2.

If a program asks you to input a specific key press, and nothing happens when you do; check to see if your caps lock is on. To turn off the caps lock from within a BASIC program, (in essence avoiding the possibility of occurrence of this problem), write 'POKE 16149,255: POKE 16150,255: POKE 65220,2:POKE 65520,128'.

When programming in BASIC and using line numbers with 5 digits, there is a problem. The cursor comes up on the screen under the second of the five digits. So if you change the line in any way, you can only retype the entire line. There are three ways to overcome the problem:

The first is to press 'HOME', and then run the cursor down the left column to the desired line and through it to make the change.

The second is to start the cursor at the beginning of any blank row and cursor through the whole empty row until the cursor 'wraps' back to the first column. Then run the cursor to the line number, and make the change. (If there is no blank row, the cursor may be moved via the 'SPACE BAR' wiping out a printed line above or below the line to be repaired).

The third method is accomplished by hitting the "ESCAPE / WP" key while the cursor is still in screen column 2. This will enter as "ESCAPE" ASCII, (27), in the input buffer at that point, (not visible on the screen). But no matter, because you then move the cursor left one space which removes it from the input buffer. Then run the cursor through the line, making the desired corrections.

The number of characters permissible on a SMART BASIC command line can be increased by a POKE 12185, xyz Instruction. There is some disagreement about the value xyz. (The default value on original BASIC media is 128). Some believe that it is 239. Mel Ostler has his set at 253, but he never tried the maximum of 255. He has done a lot of BASIC programming and has never had a problem with that number of characters on a line. However, if in the immediate mode he writes something like "PRINT 235.90+123.89+", until nearly the whole line is full of characters to add, the answer is always some ridiculous value. But just knowing that this is the case solves his problem, and he never enters more than about 128 characters in such a case. So 253 characters remains permanently and satisfactorily changed on his BASICPGM.

To RECOVER an "h" file, (to make it an "H" file), fix the BASIC bug with a POKE 20619,72. This should be made a permanent fix, as others mentioned above.

SMARTWRITER

To check the revision of your ADAM's CPU, hold down the control key and type the letter "R" while in typewriter mode. The revision number will appear in the smartkey box onscreen to the left. It should be 79 or better. Contact your user group for information about an upgrade.

SMARTWRITER was not written to recognize disk drive 2.

Use a symbol for a long word or phrase you may use frequently in a long report, then use the SEARCH and REPLACE function and the REPLACE ALL function from within "S and R" to fill them all in at the end. Remember to use a symbol that you are certain of not appearing elsewhere, like @, |, \, ", zzz, etc.

Another use for the above mentioned S and R routine would be with long documents. To quickly move to the middle or end of a document, leave a symbol somewhere in that vicinity. Then when you want to move quickly to the area, 'SEARCH' for the symbol. The 'SEARCH' function moves through the text faster than the usual "HOME - UP /DOWN" arrows do.

When using SEARCH and REPLACE, especially when searching and replacing many spaces with less spaces, (like is often necessary with a file that has been transferred with ADAMCalc) an error message at the end of the operation will often tell you "TEXT NOT FOUND". CHECK YOUR TEXT! More often than not, it did work.

When using SEARCH and REPLACE to remove multiple sequences of a single character, (for example removing several "space" characters between words), the SEARCH will find a place of occurrence, and will remove and replace the first set, and then it will move on to the next place of occurrence. In example of this problem is shown when several spaces are between two particular words, and you wish to remove all but one space. The screen begins by asking what to find, you press the space bar 2 times to find 2 spaces

together, and press SK VI to begin search. The cursor finds the first occurrence of the double spaces, and asks what to replace there. You hit "RETURN" for none, or safer yet you hit the space bar to replace 2 spaces with one. Then you hit SK VI to do all occurrences. The program moves the cursor to the location of first occurrence and removes 2 spaces and places 1 space. If there is more than 1 space remaining in that same spot, it does not continue operating there, but moves to the next occurrence. Thus It is necessary to re-do the operation several times. The process can be accelerated if the first time you remove say 4, and replace 1. The second pass remove 3 and replace 1, etc.

SEARCH and REPLACE will sometimes deposit the characters sought at the end of the file. Check the end of your file after using

"SEARCH" only works top to bottom, so start with the cursor at the top if you wish to search the whole file.

SEARCH AND REPLACE will not remove carriage returns, nor the last space between words.

SEARCH and REPLACE will quickly move you to the end of a long file. If you have it search for a character or series of characters that are not in the file. (You can ignore the error message at the end of the movement, you just wanted to get to the end of the file anyway).

There have been MANY "FIXES" for our famous line and 1/2 bug in SMARTWRITER. If you are not aware of the problem, then simply put; for every empty line in your document, (double spacing), the ADAM printer will return a line and a 1/2, which is why printing multiple pages presents such a problem in top and bottom margin alignment. There are three fixes suggested.

First, instead of a simple "RETURN" symbol typed to the 'empty' line, type a symbol from the keyboard which does not appear on your ADAM printer's daisywheel, and then type the "RETURN" symbol. If there is no such missing

character, then remove one that you will never use from the daisywheel, and use that character thereafter. This fix does not work with a Dot Matrix printer.

Second, is to put a "." on the first column of the empty line instead of a non-printing character, and then if necessary for appearance sake, white it out after printing.

Third is the most simple. When you make an empty line, hold down the control key and press the number IV, then release both and press the spacebar. This will leave a character that looks like as upside dove Y. This character will not print and the SMARTWRITER printer will only make one one empty instead of the 1 1/2 lines. (Pressing Super/Subscript, Subscript, RETURN will accomplish the same end result).

Writing and proof-reading is easier to do if you change the screen to "MOVING WINDOW", and set the right margin to 45. Then everything is on one screen and you can also cursor through much easier. Change the screen back to print.

Store a document early on, perhaps after typing only one character. Then clear the workspace and load that same program. Is this way SMART WRITER will know the name of the document in the workspace, and you will not have to supply a name every time you do a 'save it so you don't accidentally lose it'. (And as mentioned below, this should be done often).

CLEAR SCREEN eliminates the filename of the file on which you are working, no mater how such data was cleared. Thereafter SMART WRITER does not consider your work as the same file as the one you loaded. So when you attempt to STORE your document SW will demand a name, and the name will have to be different than the original same. So use a new name, but with a mnemonic reminder that it is a subsequent file to the first, (like "SUZY1", when the first was "SUZY"). Then later use BASIC to clean up the DIRECTORY.

Store and re-store your document frequently so if

your ADAM should lock-up (AND IT OFTEN DOES), or the power fails, you won't lose very much of what you were typing.

Do your long SMART WRITER documents in smaller sections. That makes functions like "INSERT", work much faster, and if there is a lock up, you don't lose as such. Then, when each section is finished to your satisfaction, "GET" them into one file by loading them consecutively, and go ahead and print the files. if you save that long file, you may want to delete the shorter files.

You can clean up your directory, and recover lost media space by loading files from the original media one at a time, and them re-store them to a new media. Then INIT the old media for new use.

Possible lock-ups: Pressing the "BACKSPACE" key and "UNDO" keys at the same time, adding an "END PAGE" marker at the end of a block of text, trying to "INSERT" text at the end of a block of text, getting a "NO MORE ROOM" message when trying to STORE, pressing the "STORE / GET" keys too rapidly after one another, or in fact, tapping any special function key very quickly.

Sometimes system lock-ups say be relieved by removing and then replacing the keyboard cable connector either at the console or at the keyboard. It doesn't work often, but it is simple enough to warrant giving it a try.

In some cases, when the attempt to store to a full media gives the media-full message, and makes the line marker at the left go up and down forever; sometimes, (and I accentuate the 'sometimes'), after about 15 minutes the program will find itself and return the control to you. If that happens, check your document. It will probably be OK.

The "TAB" and "SPACE BAR" will put blank spaces into your document. The "BACKSPACE" key will erase them, dragging whatever character the cursor has trapped along with it. This is also a good way to DELETE small sections of text.

Store and print in that order, NEVER print first.

when printing to the ADAM printer.

Store important data on two different disks or datapacks, and save one in a very safe place. Especially good are metal enclosed areas like a metal file box or a small safe.

Don't try to print anything with the margins set at "1" and "80". It will not look right.

Time your printing for when you need a break, particularly when using the ADAM printer. Leaving an ADAM printer printing alone GUARANTEES a reprint.

Well, I hope you've enjoyed reading these tips, tricks, and hints as much as I enjoyed compiling them. These are only a very small sample of what is known, perhaps you know some I haven't mentioned? Perhaps you've discovered some yourself? I urge you to write me at the address in the beginning of this chapter and share your exploration with other ADAMites, (Did I mention we're called ADAMites?).

Remember, ADAM means SHARING!

Please support your computer and perhaps we can come up with ASG, BOOK 2!! (Just when you thought it was safe to read BOOK 1!!!)