Documentation for DISK COMMUNICATOR 3.2

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Welcome to the newest version of Disk Communicator, the ultimate disk compactor. To put everyone at rest: Diskcomm version 3.2 is TOTALLY compatible with files created with the older 3.0, 2.2 and 1.7 versions. I found a bug in the 3.0 release that would not un-diskcomm files created with version 1.7, as I had thought. That has been fixed, along with a few other minor things.

One of the many improvements is in the area of compaction. Four new types of compaction have been added, so you should see a noticeable difference in the file sizes. Because of the new forms of compression, files created with the new 3.2 version will not be able to be uncompacted with earlier versions, but any file made with versions 1.7 or 2.2 will uncompact correctly with the new. Thus, files are "upward" compatible.

WHAT IS DISKCOMM?

Disk Communicator was written over a year ago to fill the need of whole disk transfer via modem. Atari DOS files are easily sent & stored on a bulletin board system, but whole disks had to be done a file at a time. Diskcomm solves this problem by scanning the whole disk, and turning it into a file. The file may be turned back into the exact same disk by the receiver, or may simply be stored for archival purposes. The new 3.2 version of Diskcomm will take any single, enhanced, or double-density disk, and turn it into a file, or multiple smaller files. Double-sided and high capacity drives up to 1 megabyte storage are also supported.

HOW TO SET-UP AND USE

Get a blank disk out, and format it. Write the DOS of your choice to it, and copy Diskcomm onto this disk. If you wish to have Diskcomm boot up automatically, rename it to AUTORUN.SYS. I have not tested every single DOS there is for the Atari, but every one tested has worked perfectly. If you use disks in single and double density, then you should use a DOS that is density-smart, such as SmartDOS, SpartaDOS, MyDOS, etc... If you use enhanced density (other names are 1050 density, dual density), you should use Atari DOS 2.5.

Diskcomm requires all 48K, so remove any cartridges prior to booting. Note: The internal BASIC of the XL and XE computers will automatically be disabled.

Upon booting, you may be presented with a couple questions if you are using a 130XE, or upgraded 800XL or 65XE. Diskcomm uses ALL available memory, up to 320K in a XE compatible computer. This makes for less disk swapping if you only have one drive. If you are using your extra memory as a RAMdisk, and wish to preserve its contents, then you must answer N to the question "Use 130XE RAM?". Otherwise, type Y. If you are using a 256K or 320K upgraded machine, you may want to use part of your RAM as a RAMdisk, and part for Diskcomm. Configure your DOS so that it uses everything EXCEPT the STANDARD 130XE banks (Configure it as if you were using Basic XE). Then answer N to the second question Diskcomm will ask, "Use ALL extra RAM?". Otherwise, type Y here.

DISK INTO FILE(S)

Before doing anything, set the parameters. Change the source and destination drive numbers as necessary, and the verify option if desired. The density statuses will change automatically; this is not set. Now type A to turn disk into files. If the disk contains more data than 1 pass can hold, Diskcomm will ask you if you wish to use separate files or one large file. If you select one large file, it will make one disk file, providing you have enough room on your destination disk. If you select separate files, Diskcomm will write out 1 file per pass, being roughly 200 single-density sectors in length. The main advantage of using separate files is you can maximize your disk storage. The destination files do not have to be on the same diskette; In fact, Diskcomm will tell you when it fills the disk, and let you insert another disk for the remainder. Each file will be one letter or number different from the others. When entering the destination filename, use a 1 or an A as the last character in the filename. It does not HAVE to be the last character, but certainly is easiest to remember that way. After entering the filename, Diskcomm will prompt you to position the cursor over the correct character to change. So if your filename is D1:MYPROG1.DSK, you would use the arrow keys to move the cursor over the 1 in the filename (if it already isn't there), and hit RETURN. Note that the character will increment; that is, a 1 will turn to a 2 for second file, A to a B, etc...

When reading the source disk, any error sectors will NOT abort the compacting process; rather it will simply increment the ERROR display on the top status lines. It WILL get any data it can from an error sector. If there are any errors on writing the destination file, you will be prompted, and the file will be erased if possible. If you are on the first pass, or you are using the separate files for destination, you may fully recover from an error without having to re-start the whole disk-into-files procedure. If, for example, you inserted an unformatted disk, you may type F at the Disk Error Menu to go to DOS functions. At the DOS functions, you can then format your

disk in whatever density, then press RETURN to exit back to the Disk Error Menu. Pressing RETURN once more will cause the program to write out the file, and continue right where it left off.

FILE(S) INTO A DISK

Again, as stated above, set your parameters first (source and destination drives). Then type B to turn file(s) into a disk. If your source is separate files, then Diskcomm will prompt you to position the cursor over the letter to change per file (exactly the same procedure as when you created the separate files: see the above section for further information). After reading the source, you will be prompted if you wish to format the destination disk. I STRONGLY recommend you do, but incase you already have a formatted disk, answer with a N. If you are using a drive capable of warp speed disk I/O (such as a Super Archiver, Happy, US doubler, XF-551, etc...), Diskcomm will ask if you wish to use the UltraSpeed sector skew. Type a Y only if you normally use ultraspeed, such as with SpartaDOS, or with The UltraSpeed OS by CSS (716-467-9326), which gives you the warp speed with all programs. If you use the US sector skew with a standard dos and OS, your program will simply load slower. (Note: if you are using a Happy, Klone, or Duplicator, you will have the warp speed at all times, so do NOT use the UltraSpeed sector skew on formatting - it may cause an error!)

If you are using separate files, and you do not have the correct file on the source drive, the program will prompt you to insert the correct disk. You may type the drive number for a directory to search different disks if necessary. Hit RETURN when the correct file is in the correct drive.

OTHER MAIN MENU OPTIONS

Use C and D at the main menu to change the source and destination drive numbers. Typing E will toggle the verify option, displayed on the top status lines. Unlike most programs, changing the verify not only tells Diskcomm how to write when un-Diskcomming, but also changes the DOS so that anything done with DOS will be done with or without verify, depending on your selection. The default is verify OFF.

Type F for the DOS functions of renaming, locking, unlocking, etc. The DOS functions will be explained in detail later on.

Use G to re-boot without having to shut down the computer. This is most useful for those with RAMdisks because the contents of the RAMdisk are not lost with this type of re-boot.

If you are using a non-standard disk drive, such as a slave drive on a Percom or ATR-8000 controller, or the new XF-551 Atari drive that is double-sided, the H option lets you customize Diskcomm to your drive. This option will allow you to set the highest sector to any sector number up to 9999. Thus if you are using a double-sided drive that is accessed as one continuous drive, you probably have 2x720, or 1440 total sectors. If you had a friend with the same type drive, or simply wanted to make a backup of a double-sided disk written with that drive, you would set the maximum sector count to 1440, and then turn Disk into files. The maximum sector count is only valid when in single or double density, and when turning disk into files. (Note: the XF-551 uses both sides ONLY in double density.) When turning the file(s) back into a double-sided disk, you should first use the DOS you normally use for double-sided operation and format the disk. Then boot diskcomm, and turn file(s) into disk (without formatting the destination). Enhanced density disks will automatically be sensed; you do not need to mess with the maximum sector count.

Typing a number from 1 to 9 will display the main directory of that drive. If using SpartaDOS, the expanded directory will be shown. To see the normal "condensed" directory, press SHIFT plus the drive number. See the below DOS functions on displaying the directory of a subdirectory.

DOS FUNCTIONS

Subdirectories are used on most hard drive systems, as well as some large floppy drives. To get a directory of a subdirectory, type A at the DOS functions menu. Then enter the directory name (backspacing the cursor and changing the 1 in D1: to whatever drive you wanted first). A "*.*" will be added to what you type, so only the subdirectory pathname is needed. An example of a directory of the GAMES subdirectory in Spartados would be: D1:GAMES>[RETURN]. In MYDOS, it would be: D1:GAMES:[RETURN].

Use B to format a disk. unlike most other programs, Diskcomm asks you which density to format the disk. Use DOS 2.5 if you use enhanced density disks. After the configuring, Diskcomm will verify the density and drive number, just to make sure you really want to go through with it.

You may now copy files in the DOS menu using the C function. This does NOT use the main buffer, so you may copy even when there is data in the buffer to be written. Please note this copy feature does not support multiple files, and it does not allow disk swapping. It is mainly intended for moving one file from one drive to another to free up space.

The functions D, E, F, and G are identical to the standard Atari DOS equivalents: Delete file, Rename file, Lock file, and Unlock file.

And as always, you can hit 1-9 to get a directory of that drive. Use SHIFT and drive number for a condensed directory wit SpartaDOS.

MISCELLANEOUS NOTES

If you use a Happy 810 or 1050, Klone, Super Archiver, Duplicator, or US Doubler, you will now be able to read & write in Warp/UltraSpeed. The warp speed in the XF-551 is also supported in this version. For some drives such as the Super Archiver or US doubler, the added speed will not be noticed unless the disk is formatted in UltraSpeed sector skew. But in the event that your drive keeps timing out when it is accessed in the warp speed, press OPTION and SELECT at the same time when it is having troubles. This will cause that drive to disengage the warp speed I/O, and should solve the problems.

Diskcomm, as it has always been, is TOTALLY density-smart. Using one drive with the source and destination being different densities is no problem. The only configuring Diskcomm will not perform is when formatting a non-standard drive, such as a double-sided drive. For that reason, any exotic drives should be formatted with their appropriate config programs.

The new XF-551 drive by Atari has a major problem in configuring to a double-density disk. This is unfortunate that Atari did not follow the standard way of reconfiguring a drive. However, I was able to find a method of forcing the drive to configure properly. As long as the drive is in warp speed, this feature will work correctly, when doing most any function. Diskcomm is the only program so far that supports this!

Reading and writing is done with a unique buffering system, to optimize speed. So you will notice little pauses between tracks when turning a disk into a file; this is normal. Diskcomm is trying to find the best form of compaction for that track, and compact it as quick as possible.

The 130XE compatible computers are also used to the fullest. This should mean a considerable shorter time to diskcomm a disk with a one drive system.

When turning file(s) into a disk, Diskcomm makes sure the file you specified is indeed a Diskcomm file. If it is not, then it will alert you. If the file is a binary file, basic, shrunk, or scrunched file, it will alert you to this. If it is not one of those, it will simply say "Not a Diskcomm file".

A note to those writing compaction detecting programs: The proper way to identify a Disk Communicator file is to check the first byte ONLY. If it is a 249 or a 250 decimal, then it is Diskcomm. (249 denotes one large file, 250 denotes one of two or more smaller files.) With the advent of so many compaction programs, a program like COMPACTOR DETECTOR 2.0 is a real neat way to check the files that are improperly named on a BBS. Hopefully the above information will help future programs.

When dealing with a filename, you may change the drive number by simply backspacing the cursor to the drive number and typing the correct number. This may be necessary in the DOS functions area.

If you wish to abort a command, use the ESC key. This works just about everywhere in the program. To stop it during disk I/O, hit the BREAK key.

THAT'S IT!

Its been just over a year since the original 1.5 version of Diskcomm went out the door, and MANY things have changed since then. I've just about run out of things to put in Diskcomm, but if you have any further ideas, questions, or comments, please feel free to contact me by leaving me (not the SysOp) a message on The Atari Apex BBS (716) 458-2638. Thank you for making Diskcomm the success it is!

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