

**DiskMate**

**COLLABORATORS**

	<i>TITLE :</i> DiskMate		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
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**REVISION HISTORY**

NUMBER	DATE	DESCRIPTION	NAME

# Contents

<b>1</b>	<b>DiskMate</b>	<b>1</b>
1.1	DiskMate Help . . . . .	1
1.2	DiskMate/WhatIsIt . . . . .	1
1.3	Diskmate/Requirments . . . . .	2
1.4	DiskMate/History . . . . .	3
1.5	Diskmate/Controls . . . . .	5
1.6	Programmers/Helpers/Thankz . . . . .	11
1.7	Authors/Notes . . . . .	12

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# Chapter 1

## DiskMate

### 1.1 DiskMate Help

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                                DiskMateV4.0 ©93
                    (Final Version)

*-----*
|\|
| | / ) / ( / A3000/25Mtz
..| |AL /--\ / ____)/_ 6Meg/105Hd

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*-----*

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WhatIsIt

Requirments

History

Controls

Recognition

Author

### 1.2 DiskMate/WhatIsIt

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*---- DiskMate V4.0 -----*
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* Multitasking

    * Multi drive Diskcopier Dos/NonDos

    * Multi drive Disk formatter

    * Multi drive Disk eraser

    * Disk Installer

    * Floppy disk Checker

* Floppy disk Cruncher (DMS)

*--- The Final Version -----*
*          *
* Apart from any Bugs that *
* anyone may find or quirks *
* that need fixing....:-) *
*          *
*-----*

*- DMS ©(SDS DiskSmasherUS) -*
*- ASL ©(CBM Commodore US) -*

```

### 1.3 Diskmate/Requirments

\* Programmed For O/S V2.0x/3.0x Beyond. \*

\*----- NOTE: -----\*

Currently tested running on an Amiga  
500/600/2000/3000/1200/4000.

WARNING:Do not use nofastmem when using the  
prg as this removes/shifts mem etc, which  
is absolutly deadly with this type of prg.

NOTE ABOUT LOADING:When loading the prg  
do not close the window which you loaded  
the prg from until you see the main copy  
window. Because it uses that window for  
its error requesters etc when loading.

LASTLY:As this prg is PublicDomain and  
as such i cannot accept any responsibility  
for prg errors/faults/corruption that  
may happen by using this prg. Although I  
have tried to test its functions Fully.

\*-----\*

## 1.4 DiskMate/History

\*--- Diskmate History ---\*

\* Version 1.01..\*

\* Version 2.0...\* (These versions never Released)  
(Or never really ment to be..!)

\* Version 2.0d..\*

- \* Did not write time and date upon formatting.
- \* Could not write anymore than one dest device when doing a ram to dest copy.
- \* Playing with the gadgets while operating prog caused disterous resaults.
- \* Chkdisk Required 1meg Ram Buffer.
- \* Name string Showed all extra bytes
- \* Did not rcognize different disks if Formatted.

\* Version 2.0e..\*

- \* Fixed time/date routine.
- \* Added A Src Ram Drive Gadget.
- \* Implemented Multiple Dest from a Src Ram drive.
- \* Fixed Chkdsk Buffer uses internal buffer now.
- \* Fixed name String, Only prints Real length.
- \* Added Install Drive Gadget.
- \* Knows different Disks Dates now if Formatted.

\* Version 2.1..\*

- \* Implemented Multipass RamCopy.
- \* Ghosts Gadgets Now When in Operation

\* Version 3.0..\*

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- \* Added Copying to DiskFile and Back.
- \* Added Copying to RadDrive and Back.
- \* Added Retry Gadget for Copy Errors Etc.
- \* Added Speech Routines.
- \* Added 880k/1.76m Disksize Formats
  
- \* Version 3.01..\*
- \* Added Trk Direction for floppydrives
- \* Implemented built in help now

- \* Fixed Retry Bug

- \* Fixed Inhibit Drive Bug
- \* Fixed Verify Error Bug
- \* Prg Properly AutoCentres On Boot now
- \* Uses WB Beep Function now for Errors
- \* Implemented Multidrive Format
- \* Fixed memory Allocation Checking
- \* Added del function
- \* Added dir function

- \* Version 3.2..\*

- \* Added options ofs/ffs in Install function
- \* Added ofs/ffs format option gadget
- \* Added shell window gadget
- \* Implemented Copying To/From Any Virtual Disk Device
- \* Fixed Asl Bug now keeps path/filename immediatly

- \* Added pattern gadget to asl requester which now looks for ext .dm which is attached to all files copied to hard disk etc using the file option

- \* Fixed Stop Gadget (Dosn't Stop now for no Reason)

- \* Version 4.0..\*

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- \* Fixed Asl Crashing (Wont hang up now)
  - \* Now writes Boot/Root Blocks Properly
  - \* Vdisk Unit String now works properly to 99  
You can also use 04 or 4 for example 4 etc now.
  - \* Implemented Dos+ Copying Mode
  - \* Added Viewing of Boot/Root Block hex/ascii
  - \* Added Iconify Gadget
  - \* Implemented Crunch Routine (Uses DMS ©SDS Software)
- \*-----\*

## 1.5 Diskmate/Controls

\*----- Prg Controls V4.0 -----\*

- ? Gadget:                   \* ?=help: Well this is the builtin help. Click on  
for help and click off again to quit. You can  
also get this by pressing the help key.
- Direction Gadget:           \* F/B=Direction. This gadget will let you toggle the  
trk direction of the floppydrives either forward  
or backward. This also works with rad.
- Dir Gadget:                   \* DIR=Directory. This will bring up the Asl Requester  
which will let you have a look at a Directory of any  
device connected to you system.
- Del Gadget:                  \* DEL=Delete. This will bring up the Asl Requester  
which will let you delete a file on any device  
connected to your system.
- S Gadget:                     \* S=Stop. This gadget will let you escape from any  
drive accessing function in the program.  
Note: Although this happens almost  
instantly, at times you may have to hold  
it down for a sec, this is due mainly  
to the fact that it could be accessing  
a disk therefore you could have to wait  
till that disk whether reading or writing  
is finished before it gets the message  
to stop. For the techies>> The Main reason  
for this is that it would take quite a  
substantial amount of work to make it  
interrupt driven, ie: using Sendio).
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- OFS/FFS Gadget: \* OFS/FFS=Format Type. This gadget will select the format type when using tthe auto option in the erase routine or when clicking format to format a disk.
- ShellWindow: \* ShellWindow=NewShell. This gadget will open up a newshell window.
- Magnify: \* MagnifyBB=ViewBlock. This gadget will view the root/boot block of any src disk selected. The arrows in the viewing window will toggle the viewing between the upper/lower two sectors.
- I Gadget: \* I=Install An AmigaDos BootBlock on the Selected Src Drive. You Can Select either ofs(old file system) ffs(fast file system) format.
- C Gadget: \* C=Check. This Gadget is used to Check a disk in any of the Src Drives.
- SP Gadget: \* SP=Speech. If this gadget it set on, it will speak any requester/name msg that will appear. (Note..If Translator.lib or Narrator.device was notfound the SP Gadget will be Ghosted.
- ID Gadget: \* ID-Inhibit-Drive. In default mode this is set off which will mean when an operation is started eg: Diskcopy/Erase(kill) Etc, you will notice that a busy icon will appear on the WorkBench Screen for each Drive that is in use. And when that particular operation is complete, the busy icon will disappear and the disk(s) name(s) will appear again. If the ID Gadget is selected all drives in the system will go busy as described above untill deselected again. This gives you the option of having/not having the drives read each time you put a disk in a drives(s).
- \* Note: For some reason even though the above works the drives still may wait a few secs before they recognize/read/write a disk with the drives busy. Its probably just something i am not aware of yet. I should have this fixed by version 4.0 though:-).
- A Gadget: \* A=About. Well here I am.
- N Gadget: \* N=Name. This Gadget will show you the name of the Selected Src Disk in the Status Window. (Note. With certain disks either Erased or NonDos, you will get the name NonDos.. Instead.
- StatusWindow: \* As the name implies, will show all msgs here whether DiskCoping/Formatting or whatever.
- SrcDstGadgets: \* These are The Gadgets in 2 columns on the far right of the program which deal with which particular mode you are using either Erasing/DiskCopy.
-

When you Load the program Default, all the FloppyDrive(s) that you have in your system will either show up as usable/not ghosted or they will be set to ghost mode (unusable). They are fairly straightforward to use. For example to use the diskcopy mode, just select a src gadget and one or several destination gadgets and that's it. If you want to use the Single pass ram copy as well you can select the Ram destination Gadget as well. It will check to see if you have the memory for the ram buffer to copy to first, and if not it will give you a "not enough" requester. Else if the Buffer is big enough, when you select go it will copy to a ram buffer as well.

Note: The ram gadgets src/dest will be ghosted or enabled depending on the available memory. If you don't have the available memory for a whole disk to copy to in one read, the ram gadgets will be ghosted and you will go into the multipass disk/ram copy. On the other hand if you did have the memory the ram gadgets will be enabled and this will copy the src to the ram buffer in one read. If the copier goes into the multipass mode, follow the appropriate requesters to swap disks etc when required. Warning..If you have selected more than one dest disk, ie dfl/df2 etc, Do not remove them until the message ok comes up in the status window, telling you that the copying is completed, else they will not be complete copies.

If the prg reads the whole disk in on one pass, when and if the trk guage reaches across to 160 trks, all the other selected dest drives (if you were doing multiple dest of course) would be finished on the first pass - you would then remove from there appropriate drive(s).

Now that you have read the src into ram, from now on, if you want a copy of the image in ram All you do is select src ram, then pick which drive from the dest drives 0/1/2/3 you would like that ram image written back too.

Once this is done it will write the Ram buffer back to the disk(s) you have selected. The image in ram will always stay there, until you do another copy into ram again.

Vdisk: If this src/destination gadget is selected the program will use your Virtual drive the same as a floppy drive would above. Note: The prg can only work with virtual disk devices of low density or (880k) size AmigaFormat.

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VdiskGaget: \* Vdisk=Virtual Disk Drive. This Gadget will allow you to select a virtual drive eg: rad/fms/vdo etc for use just like a normal floppy-drive.

Note: As these devices may never be 100% reliable although they usually work ok, use these devices with care. If you do use a vdisk these can prove to be a very fast copy way of copying multiple disks. What to enter in vdisk window when opened.

VdiskName: RAD:/FF0:/VDO: ETC  
Vdiskdev: ramdrive.device fms.device etc  
vdiskunit: 0/1/2 etc for that particular dev above.

File: If this dest gadget is selected the program will bring up the Asl Requester which will after entering a filename in the filename box will then allow you to write a copy either a low/high density disk to a file which can be anywhere on your system's devices, eg: Harddrives/floppies or whatever. Depending on what size you have selected 880/1.76, the file will be either 901120/1802240 bytes in length. And on the other hand if you select file src, then a requester will pop up in which you can select a file to write back to your destination disks. WARNING:Make sure that you have the right size disk in the drive for that particular drive format, 880/1.76, Or else you will end up with a disk with only half the data and the wrong sec size. As a 800k writes 11\*512 sec per trk, and a 1.76 write 22\*512 sec per trk, So make sure its right!!.

Also if you tried to copy from a high-density file/disk src to a vdisk drive this would not be allowed, because the vdisk is only 880(1meg) in size. And the same goes for the Ramdrive. When the prg loads it will now check to see if it can get a 2meg buffer for the 1.76 disks. If it cannot it will get either the 1meg or 512k buffer instead. So if it could only get a 1meg/512k buffer you would not be able to copy a 1.76 disk to that buffer because it would be too small. (I really only wrote copying to ram with the High-Density disks for the users with Heaps of Ram, that is why i didnt bother with the multipass High-Density to Ram Copy).

Low/High: As Stated above this is the Disk format size selection gadget. Either 880(1meg)/1.76(2meg) Disks. Note: At the moment it will only format to

AmigaDos Format.

If Erase(Kill) Mode is selected, all you do is select any Src drive(s) to erase and Select Go. This function or operation will completely wipe

your floppy disk(s) like new. Note to make it usable with AmigDos see AutoGadget Below.

Dos/Dos+: \* If the Dos Mode is Selected when copying for example the prg will verify that the Src disk Read ok and that the dest wrote ok. If the Dos+ Mode is Selected it will verify that the src read ok and that the dest wrote ok and then it will read the dest again and then compare the dest data with the src data and make sure they are the same.

CrunchSwitchGadget: \* On/Off=FileCrunch on/off. If off and you select a dest file gadget and you are in the diskcopy mode the prg will copy the src disk selected to a file on any device etc. In the off position the file will be either low(901120) or - high(1802240) Bytes in Length. If the switch is in the on position, the prg will use the DMS or (DiskSmasher Prg) in you sys:c Directory...The cli Version Turbo-Genericv1.11. It will then crunch the src disk to the file selected using the options in the Crunchoptions gadget. Note: if you have any other dest gadget selected other than the file gadget and you are using the on crunch option eg:(DMS Crunch) the Src disk will be read and packed first then the other drives will then be written too. So wait untill all drives are stopped and completed before you remove the floppy(s) or else you will definatly get some errors.

If reading from a crunched file you can only select one dest floppy/vdisk device. As presently i could not write a routine that would work to my requirments successfully apart from some very messy code so i opted for one disk read/write to/from a dms file. If someone wants this to have multiple dests from a src dms file i would probably implement this sometime.

CrunchGadget: \* CrunchGadget=(PRG/DMS (Crunch)Options). If this gadget is clicked, it will open up a window which will allow you to change options that are used in the prg, either to do with the crunch (Specifically DMS) or the main prg itself. The DMS options are (NONE/HEAVY1/HEAVY2/BEST) crunch mode. Warning:Do not use Dms At all unless you have at least 1meg> of Ram: free after loading diskmate. Or else If you do and you dont have the ram you will find that it will pak but will probably or not write anything at all. (This is because DiskMate allocates buffers etc and if it gets the full 2meg(1802240) for a high

density drive and you only have a 2meg machine well you wouldnt have enough ram for dms to work properly. So Only use Dms If you have heaps of memory.)

You can also see the action of the dms working with the text option on. This will cause it to come up with a window which you can see the dms output in.

NOTE: To know what the cmode options mean above see the appropriate DMS documentation for their usage.

AutoGadget: \* This Gadget is used in conjunction with the erase (kill) function to let or enable you to format a disk when it has finished the erasing. Eg: To achieve this select erase mode, Set the Auto Gadget down or selected, select any Src Drive(s) to erase and then Select go. When the erase pass is complete, it will automatically format the src drives selected.

VerGadget: \* This gadget can be enabled on any mode. If you doing an erase(kill) it will check that the data got written ok. Or if you were using the DiskCopy mode, it will check both the reading of a src disk or and any dest drives as its copying.

If You have the verify Selected you will get a blue bar under the trk bar if that sec(s) is ok, else if it had some error it will appear in grey. (NOTE: The Colours in the Program may vary depending on what colours you have set for your workbench colours.

RetryGadget: \* This gadget will only have any affect if the verify gadget has been enabled or set on. If it has then, if an error has been found the disk with the error will go back and try and read the trk/sec again, according to how many times that you have set the value next to the retry at. Using the up/down gadgets you can set this to a value from 0-9 retries.

TrkGauge: \* This displays where the disk has got up to. The Trk bar shows up in white and extends across. And as above the verify if set shows up below.

FmtGadget: \* This gadget will if selected format a disk in any src drive. When you select this Gadget a requester will come up with the option of either 1) Quick or 2) Complete format mode. if 1 is selected it will just format the Boot

Block and Root Block. If 2 is picked it will format the disk(s) completely. Note: the quick option is only recommended for a disk that you know is ok before hand. As it does not write to any other sectors than the r/bb.. (DO NOT USE IT FOR STORING VALUABLE DATA TO). or you may risk losing it. You have been warned. And also as above, the disksize Gadgets apply. So you can do either 800/1.76 disk format.

Note.If the autogadget is selected when you selected fmt it will disregard the autooption. And also the ofs/ffs gadget will set which type of format the disk will have when formatted if using auto or just clicking format directly.

DiskFormats: If you have selected either diskcopy or c(check) Gadget(s) and you see that the disk access stop unusually early, this is because of a Track-Disk Device error, Probably a disk format unknown error, which will cause it to stop.

Stopping: \* Apart from pressing the stop gadget to stop some disk access, you can just remove a disk from any drive. I put this option in as you never know who might fool with your computer when you're in the next room! Although I wouldn't recommend you do the above at all!!.

Quit: \* To quit select the Close Box.  
Note: You can also use the Q or Esc Key.

HelpKey: \* Brings up the Info.

## 1.6 Programmers/Helpers/Thankz

\*-----\*

\* Progamers Two people i want to thank are RayDuck and His Mate Daryl Bartlett. For all Thier help with programming and Infomation over the years. And another programmer who is probably the most amazing on the planet lord knows where he is though, none other than Kyle Hodgets. And three other guys, Tom Gubler Andrew Wright and Jason Bullin, for all their help with code and ideas to programming in general.

\* Helpers/thankz  
All Beta testing By Michael Harvey.  
Raylph Downs for his Suggestions.

And Last Mareeca Duck And Judy Miners...:-)

\*-----\*

## 1.7 Authors/Notes

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DiskMate v4.0

©1993 Malcolm Harvey

Programmed 100% Assembly Language

Programming/Graphics .. Malcolm Harvey

Prg: \* This prg has taken over 2000 hrs in Development  
time to make.

\* Amiga.....Amiga3000.  
6meg ram.  
105m QHD.

\* Assembler...Devpac.  
Debuggers...Monam.  
Metascope.

\* Editor.....Cygnas.

\* Graphix.....Dpaintiv.  
Pixmate.  
Powerwindows.

Bugs: \* HopeFully Now None

\* If you do find any please send them to me  
via my address below. Happy Computing.

Address: 4/39 Duet Drive  
Mermaid Waters  
GoldCoast 4218  
Qld Australia

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