

dred

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REVISION HISTORY

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Chapter 1

dred

1.1 DRED DOCUMENTATION by Bob Rye and Brett O'Callaghan

```
~~~~~
      * DRED - Disk REDucer v1.110 *
      Bob Rye & Marcus Mroczkowski
      Conceived by Brett O'Callaghan
~~~~~
```

Everything contained in this release of DRED for the Amiga is
USE-AT-OWN-RISK. We, the authors, make no guarantee as to the fitness
for use of this software. We accept no responsibility for possible
damages incurred before, during or after execution of this software.

```
@{ "LEGAL"                " link legal } Why you are muck for illegally selling  ←
  DRED!

@{ "DISCLAIMER            " link disclaimer } Why you are at fault when it goes  ←
  boom!

@{ "What is DRED?         " link what_is_dred } Yeah! What *IS* DRED??
@{ "What can DRED do?    " link what_dred_can_do } What can DRED do for me?
@{ "How do I use DRED?   " link how_do_I_use_dred } So, how does it work?
@{ "Disk-drive types    " link disk_drive_types } What's in a drive-type?
@{ "Hard-drive usage    " link hard_drive_usage } DRED and you hard-drive!
@{ "Floppy-drive usage  " link floppy_drive_usage } DRED and your floppy-drive!
@{ "Example result      " link example_result } A typical result from DRED!
@{ "Requesters          " link requesters } What are those *cool* requesters?
@{ "Error handling      " link error-handling } How DRED copes with errors!
@{ "Other stuff         " link other-stuff } Some hints'n'tips etc!
@{ "Editorial by Bob    " link editorial } A word from the author!
@{ "Credits'n'thanks    " link credits } Who to thank and why!
```

1.2 legal

DID YOU PAY MONEY FOR THIS SOFTWARE?

DRED is @{ "FREWARE" link freeware }

This software is @{"FREWARE." link freeware } This software is free. If you have ←
paid

money for this software, then you have been ripped off. I have
written this program for you, for free. If you paid for "support"
from where you got this file, then you are also being ripped off.

You cannot obtain support from some unqualified desk-doofus hiding
behind the façade of "a support specialist". All that these people
are doing is making money from you, the innocent end-user, and ripping
me off by immorally making money from *MY* programs.

Please take a stand against these companies. Please don't buy *FREE*
software from these companies. If you would like copies of any (or
all) of MY software (anything by Bob Rye) you can have them for
FREE. That's right, for nothing. All I ask for is a blank disk, to
copy the programs onto, and the cost of return postage (and your
address!) Then if you want "support" for my programs, send Internet
@{"email" link credits } or Fido @{"netmail" link credits } to me or snail-mail ←
me and you'll get real support.

STAND UP AND BE COUNTED.

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wish to redistribute this package, you MUST obtain my written
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away. The copyright to DRED, the documentation, the source-code, and
the actual software remains the explicit property of Bob Rye, ©
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Distributors of this package must cease distributing this package, if
and/or when, specifically requested to do so by the author(s). This
request will be made in writing.

ANY commercial distribution of this package without the prior written
consent of the author (Bob Rye) is expressly prohibited.

1.3 disclaimer

ALTHOUGH OUTSTANDING BUGS IN THE CODE HAVE BEEN ELIMINATED, THERE
REMAINS THE POSSIBILITY OF UNFORESEEN PROBLEMS. WE RESERVE THE RIGHT
TO REFUTE THE EXISTENCE OF SUCH 'BUGS', BUT IF FOUND, WE WILL ATTEMPT
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1.4 what_is_dred

What is DRED?

~~~~~

DRED stands for Disk REDucer, it's a utility that can save you a lot of disks. It does this is by making a list of files that you want to put onto a number of floppy disks, and working out what files should go where in order to minimize the number of disks needed. DRED requires the superlative Nico François @{ "ReqTools.library" link nico } in your LIBS: ↵ directory.

## 1.5 what\_dred\_can\_do

What can it do for me?

~~~~~

Say that, like me, you're a compulsive collector of files, pictures, modules, archives, anything really. Perhaps, like me, you have these files stored on X number of floppy disks. Probably, like me, each of your disks have 5-50k of empty space on each because you couldn't fit anything else on them. DRED will take these X number of disks, and reduce the number of disks to X-Y, with each disk having as little as 512 BYTES left on it. Simply put, DRED will take your files and put them on floppy doing a best-fit as it goes along, so if you have 27K left on a floppy, and DRED can find three files that add up to 26.5K, it'll put these three files on the floppy leaving 1 block (512 bytes) free. This is plainly going to save you disks.

NOTE: DRED only scans and recognises files in the ROOT level of a specified disk/directory. Directories and sub-directories from the root will NOT be recognised and/or scanned.

1.6 how_do_i_use_dred

Wow! How do I do it?

~~~~~

There are two ways of using DRED, Hard-Disk mode (the default) or Floppy Mode. If you have a HD then it is recommended you use it, if you don't, then floppy mode works, but involves heaps of disk-swapping. You can now also obtain a hard-copy of everything that DRED copies for you.

Usage.

~~~~~

DRED [<-options>] <in-drive:/in-path> <out-drive:/out-path> <SFS/FFS>

where options =

- f -- FLOPPY MODE, also known as DISK-SWAP mode 8^)
- l -- LOG MODE, DRED will write a log-file called "LOGS:DRED.log". This means that to use the log mode, you will need to assign the LOGS: to somewhere applicable.
(ie. assign LOGS: DH2:MAIL/LOGS) The log file is of this format:

```
# Mon Aug 03 10:44:00 1992  SESSION STARTED
+ Mon Aug 03 10:44:04 WRITING file: "c:scan" to "df0:scan"
+ Mon Aug 03 10:44:54 WRITING file: "c:Fountain" to "df0:Fountain"
+ Mon Aug 03 10:45:02 WRITING file: "c:ConfigOpus" to "df0:ConfigOpus"
+ Mon Aug 03 10:45:25 WRITING file: "c:shrink" to "df0:shrink"
+ Mon Aug 03 10:45:31 WRITING file: "c:CFX" to "df0:CFX"
+ Mon Aug 03 10:45:41 WRITING file: "c:multifind" to "df0:multifind"
+ Mon Aug 03 10:45:47 WRITING file: "c:TLStat" to "df0:TLStat"
+ Mon Aug 03 10:45:51 >> DISKCHANGE <<
[...]
```

"Session started" and "Session finished" starts a log line with the '#' character.

Standard log lines (incl. DISKCHANGE lines) start with the '+' character.

Error lines start with the '~' character.

DRED's log file manipulation is VERY safe and fairly time-inexpensive.

- c -- NO COPYNOTE MODE, tells DRED NOT to apply a special filenote to the files that DRED has successfully copied, ie. the origin files. This filenote says "Successfully DREDED day/date/year time". By this filenote, you should be able to tell which files have been successfully DREDED from the origin dir. The default for this option is OFF, which means that DRED will, by default, apply a filenote to successfully copied origin files.
- m -- MOVE MODE, tells DRED to move the successfully copied files instead of just copying them. This option overrides the COPYNOTE option.

****WARNING****

This option could seriously damage your original files (ie. delete them!) Unless you

can drive Dave Haynie's DiskSalv 2 adequately, I wouldn't play with this option. This option is merely here for those who WANT it! Especially brittaing@uk.ac.aston.vax.kirk!!

-n -- NOCLONE MODE, tells DRED to reset all of the file's attributes after copying it. This means that using the NOCLONE mode, the file's protection flags will be reset to the original ---RWED format. The file's DateStamp will also be reset, showing the exact date and time that the file was DREDED. Also, (maybe importantly?) the file's filenote will be erased.

** NOTE: DRED defaults to CLONE mode, meaning that DRED will make an identical copy of the origin file to the destination disk, by default. Special thanks to Chris Hames for lending his expert coding ability to someone without the new DOS RKMs.

-s -- SUMMARY MODE, this will give you an idea how many standard AmigaDOS floppy-disks (SAFs) you'll need to store all of the data to be DREDED. This number is always given in SAFs as a measure of consistency. Occasionally when DREDding large files you may need an extra destination floppy. This happens rarely, although it's intelligent to remember that this is possible, so always be prepared to format another destination disk. See "What's in a drive-type?" below. AKA "dry run".

-v -- VERIFY destination file mode. Generally DRED, in conjunction with AmigaDOS (there is no DOS like it *;-) will trap a disk error. Even though this is the case, DRED has the ability to further verify the integrity of a destination file via this option. Immediately after writing the destination file, DRED will read the same file and report any errors found. You will then be given the option of continuing with the DRED process or the ability to quit. If you do decide to continue, the unstable file will be removed from the destination disk. Please check "ERROR-HANDLING" below...

in-drive/in-path -- The path to where your files are.

out-drive/out-path -- The path to where your files will go.

SFS/FFS -- The type of disks you are putting your stuff on, SFS (Standard File System) ie.

SLOOOW, or FFS (Fast File System) ie FAAAST.

1.7 disk_drive_types

What's in a drive-type?

~~~~~

Generally, DRED thinks it is copying data to standard AmigaDOS floppy-disks (SAFs). DRED was designed to be used this way. DRED always knows how many free blocks there are available on the current destination disk/device. But what happens if someone wants to DRED 20 meg of files from a hard-disk partition over to their SyQuest 44 megabyte removable cartridges? When this person asks DRED for a summary, DRED will tell you how many SAFs will be needed to contain the outgoing 20 megabytes of data. Now, if you think hard enough, you will note that 20 megabytes of data WILL fit onto a 44 megabyte cartridge, so, the number of SAFs needed is not applicable.

DRED does note the number of free blocks on the destination device, so when you start DREDing to your 44 meg cartridge, the number of free blocks will be known, and printed to the screen. DRED will keep a block-count to a precision of +/- 1 block per SAF. You shouldn't, at any time, run into a "DISK IS FULL" dos error. If you do ever get a disk full error, then there is a good chance that you have inserted an SFS disk during an FFS session [note: DRED v 2.003.006+ now checks each disk inserted for the correct type. DRED will now inform you if the inserted media is of the wrong (ie. NOT REQUESTED) format!]. Please check the format of all disks that you will use with DRED. DRED should ensure that data written to a device doesn't top the free blocks count. You can even DRED files from one hard-disk partition to another, although this is clearly a stupid idea. To summarise, DRED will figure out the size of the device you are copying to, and will keep a count of how many blocks remain free. If this device fills up, and DRED asks you to remove and replace the current destination disk, you had better be using a removable medium, otherwise, you're stuck. If you must manually "diskchange" the device upon insertion of new media, use a "POPCLI" to get to your system.

## 1.8 hard\_drive\_usage

Suggested HD usage.

~~~~~

If you've got say, 25 disks of stuff you want to reduce, then copy as much of it as you can to a partition, if you can copy it all, then do it, as DRED works best with lots of files.

Ok, you've got a few hundred files on your HD in the directory DH3:TEMP (stunningly original name I know). First, give the command -

```
dred -s DH3:temp df0: FFS
```

ie. Tell me how many disks I'll need if copying all the files in the directory DH3:temp to FFS disks in drive df0:

DRED will now tell you roughly how many disks you will need. Now, go and format that number of disks, plus a couple extra just in case. Remember to specify FFS format if that's what you're using.

Ok, you've got the disks! You're now ready to experience the magic of DRED! Enter this command -

```
dred DH3:temp df0: FFS
```

Now, sit back and watch DRED do it's stuff, changing disks when asked/beeped. That's it! After DRED is finished doing it's stuff you'll have a number of disks with very little free on each, hopefully saving quite a few disks.

The last disk in the sequence might have a fair bit left on it, just use this disk as the first disk in the sequence when you want to DRED some more files, as DRED first checks the disk to see how much room it has.

1.9 floppy_drive_usage

Floppy usage.

~~~~~

If you're a sucker for punishment, or just don't have a HD then you too can still use DRED, you'll just have to swap disk a lot. Note, you **MUST** have two drives! Have some disks formatted, then enter the command -

```
dred -f df0: df1: FFS
```

Then keep inserting your source disks until DRED knows about all your files, and what floppies they are on. Then you'll have to change the various disks as the system and DRED ask you to, it's messy, but it **DOES** work, I should know, I did it (once). Note that DRED cleverly uses what memory you have to reduce disk grinding.

Note! If using floppy mode, then your source disks **\*MUST\*** have different names.

## 1.10 example\_result

Example Result.

~~~~~

Here's the results of the test I did with my seven archive

floppies, they reduced to six floppies.

```
Disk 1:  2 blocks free (1k)
Disk 2:  1 block free
Disk 3:  4 blocks free
Disk 4:  1 block free
Disk 5:  1 block free
Disk 6: 145K free.
```

It's difficult to get much tighter than that!

1.11 requesters

Requesters.

~~~~~

You may have noticed that DRED uses the sublime @{ "ReqTools.library" link ↵  
nico }

by Nico François. DRED uses ReqTools because the author \*likes\* ReqTools.  
Some basic conventions for ReqTools "EZ" requests are:

- Hitting {return} on your keyboard chooses the default request choice (this is shown in BOLD text on the default button!) DRED uses the LEFT, "CONTINUE" request-button as the default.
- Hitting {Escape} will choose the RIGHT, or "NO" button.
- Pressing the initial of either button also selects that button.

## 1.12 error-handling

Error handling.

~~~~~

If a DOS read or write error occurs on either the origin disk or the destination disk, DRED will probably inform you of the error before DOS does. DRED will show a requester giving you a choice of actions. You can do two things when an error occurs: CONT or QUIT. If you choose CONT, DRED will allow you to insert another destination disk. If you DO insert a new destination disk, the Amiga will complain about the new disk and display a requester asking for the old disk. Just hit "Cancel" and DRED will resume DREDing. Hitting QUIT at any time during this passage will result in DRED quitting altogether. All files copied to the errored disk BEFORE the error was encountered should be ok, but the file being DREDED to the errored disk will have been deleted by DRED, since the file was not intact. This deleted file will be placed onto the next blank disk that you insert. I would recommend copying the files which have just been DREDED onto the errored disk onto a new clean disk, however.

1.13 other-stuff

Other stuff.

~~~~~

Just entering 'dred' will also give you this handy little tit-bit:

-----

Available Memory Diagnostics:

Chip = 387112 Fast = 64328 Total = 451440 Max. DRED Entries = 2594

-----

^^^^

This is how many files it could theoretically cope with on my vanilla one meg a500, with stuff running in the background. If you have 10000 files (extremely hard to believe) then get more memory! (Note: On Bob's nine meg 2000, he can queue ~25000 files for DREDing.) On my test seven disks I had only ~200 files.

One possible problem with a program of this type is running out of free memory when copying huge files from the origin to the destination. This problem has been averted with DRED. DRED uses a smart memory buffer which will allow you to copy those monster files, without needing all that memory.

DRED may occasionally may not be able to fill some disks entirely. You may be attempting to DRED several LARGE archives down to floppy from your hdisk, and a close fit may not be physically feasible. If this happens, just remember to write down (on the floppy) how much room is left on this floppy. Then, when next DREDing, place these slightly-empty floppies in FIRST. If DRED can fill these disks, then it will. It is intelligent enough to figure exactly how much free-space is remaining on each floppy.

And ALWAYS read the requesters properly! Important information is contained in each requester, so read them carefully.

## 1.14 editorial

A HELLO FROM THE AUTHOR!

~~~~~

Umm, hello. My name is Bob Rye, and you have an Amiga. We are therefore friends. Because you had the better-than-average foresight to buy an Amiga, I should tell you that this software is FREeware. This means that if you find DRED unbelievably useful, then hopefully you might find the time to send me a postcard for my trouble, but you don't really have to! Other than the postcard, I don't really want anything from you other than a quick hello via the Fido message network. My Fido Netmail address is 3:633/359.7 and I point from Crazy Diamond BBS. Feel free to do either (or all) of the above, and let me know what you think of DRED. This includes good'n'bad! BTW, you should also thank Marcus for the coding help (we had a turd of a time getting the list-sorter going) and Brett for the brilliant idea, documentation, and beta-testing!

1.15 credits

Compiler:

SAS/C for the Amiga, version 5.10b+
(Brilliant stuff!)

Src-machine:

Amiga 2000B + GVP Combo axel @ 33mhz

Spiffy requesters:

@{ "ReqTools.library" link nico } (c) 1991 Nico François

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1.16 freeware

By being FREEWARE, the terms of use are simple. You can use this program for as long as you like without having to pay ANY money. DRED falls under a slightly different category: REGISTERABLE FREEWARE. This means that you CAN in fact register DRED, and remain on the author's mailing list. Any time you want a new DRED (or any of Bob's other products) all you need to do is send a blank disk to Bob, along with appropriate prepaid return postage, and you can expect to see your new version(s) of the requested programs very soon. Of course, you can register in the standard way (ie. \$A25) but you could also register by sending Bob a registered copy of your program, or a paperback novel (sf or fantasy), or a cd (anything) or a spare Kelly Bundy or two...

1.17 nico

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