AllowBad1.0

MIKEMASTER

COLLABORATORS

	TITLE : AllowBad1.0		
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AllowBad1.0

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                                    AllowBad 1.0

                    c Mikolaj Calusinski 1997. Freeware.

                            User Manual


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1.2   AllowBad 1.0: Introduction

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            AllowBad  is freeware (see
            Distribution
            ) and copyright 1995-1996 by Mikolaj
Calusinski. All rights reserved.
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******************************************************************************
IMPORTANT!

IF YOU ARE A FASCIST OR NAZI YOU ARE *NOT* ALLOWED TO USE THIS PROGRAM!!!
******************************************************************************
```

1.3   AllowBad 1.0: Distribution

[The following text has been derived and adjusted from 'FileMaster 3.0.guide'
c Toni Wilen 1995 (I don't want to reinvent the wheel). I hope Toni, you
don't mind.]

AllowBad may be distributed freely, providing the following criteria are met:

  – None of the files in the AllowBad distribution archive may be modified or
    omitted.

  – No money is charged for it apart from media and small handling fee.

  – AllowBad may be included in freely distributable software libraries,
    including the Fred Fish collection and CD-ROM distributions of the Aminet
    FTP site contents.

  – AllowBad may not be bundled with any commercial hardware or software
    product without prior written consent from the author.

  – You may not reverse-engineer or modify the AllowBad executable on disk or
    on memory except for compressing it.

1.4   AllowBad 1.0: Disclaimer

[The following text has been derived from 'FileMaster 3.0.guide' c Toni Wilen
1995 (I don't want to reinvent the wheel). I hope Toni, you don't mind.]

THIS PRODUCT IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND. ALL RISKS
AND DAMAGES, INCIDENTAL OR OTHERWISE, ARISING FROM THE USE, MISUSE, OR
INABILITY TO USE THIS PROGRAM ARE ENTIRELY THE RESPONSIBILITY OF THE USER.
THE AUTHOR DOES NOT MAKE ANY GUARANTEES OR REPRESENTATIONS REGARDING THE
CORRECTNESS, RELIABILITY, ACCURACY, CURRENTNESS, ETC. OF THIS PROGRAM. THE
AUTHOR WILL NOT ACCEPT RESPONSIBILITY FOR ANY DAMAGE OR LOSSES RESULTING FROM
THE USE, MISUSE, OR INABILITY TO USE THIS PRODUCT.

1.5   AllowBad 1.0: What is that for?

This program was written as a replacement for good, but old BFormat 4.0.
Its purpose is to format disks of any *floppy-based* devices, which have
hard (media) error on them. Such disks cannot be formatted (and hence
utilized) by system 'Format', so only thing you could do was getting rid of
them. Optionally, you could use BFormat of course, but such prepared disks

were very unstable under AmigaDOS, and gave 'read-write' errors quite often.
This was because of way BFormat works - it allocates only blocks which
appeared to be corrupted, leaving rest of the track for use by filesystem. It
sounds quite logical and give you more free space on disk but doesn't work
that well with floppies. For safety of stored data it is better to avoid
whole track regardless whether there is only one or more bad blocks on it.
That is the way AllowBad handles the errors - it masks the tracks, not
blocks.

AllowBad should be able to format disks in all floppy-like devices,
which have the following parameters (and these are checked when device type
is determined to be floppy or not):

- number of surfaces must be 2

- starting cylinder (LowCyl) *must* be 0

- ending cylinder (HighCyl) must not be higher than 81

- block per track must be in range from 5 to 32

- block size must be standard (512 bytes)

- device must use AmigaDOS filesystem (0x444F53XX - 'DOS')

- max unit number is 3 (ranging from 0 to 3)

The above should rule out all harddisks (if you want to format damaged
harddisk use BFormat or Quarterback), CDROMs, etc. AllowBad works (and has
been tested) with trackdisk (DFx:), diskspare [(c) 1992-1994 by Klaus
Deppisch] (DSx:) and floppy [(c) 1994-97 Orhan Dagistanli] (FSx:) devices. It
should support all possible future devices which comply to the specs
mentioned.

As of version 0.8 support for floppy.device has been added. This is
non-standard device as it patches private structures of filesystem to place
root block (and other special blocks) at track 0. This speeds up directory
reading a bit, but is generally incompatible with AmigaDOS.

As of AllowBad version 1.0 abovementioned special support for floopy.device
has been removed, since version 4.1 of this device seems to follow standards
more closely. So, when You are going to format disks using floppy device with
AllowBad, beware of the fact and install at least version 4.1 (or higher) of
the device!

The program is aware of high density (HD) floppies and supports them, but be
warned that only standard 150RPM drives has been tested. If your drive
requires special commands (and/or patches) to operate in HD mode, AllowBad may
not work properly (especially with 3rd party devices such as diskspare or
floppy).

You can format RAD: device with AllowBad (as long as it complies to
above specs) but this does not make much sense.

1.6   AllowBad 1.0: Requirements

As   most   of   nowadays   programs,   AllowBad   requires   at   least   ↩
version 2.04
of operating system. Reasons are obvious: it is much easier for programmer
(me) to code the whole thing and most Amiga users have already upgraded their
systems anyway. If you want to use DIRCACHE filesystem you need OS 3.0 or
higher (however AllowBad can format dircache disks under 2.04, too).

AllowBad also requires some free memory; its amount depends on device.
For further details see
Way of operation
section.

1.7   AllowBad 1.0: Limitations

AllowBad is somehow a little bit more tollerant than other programs of
its kind – it can properly format and initialize disks, which have track 0
(boot) damaged! The   only   requirement   for   such   disks   is   the   ability
to read/write first two block on track 0 (ie. bootblocks) and one block
on middle track of disk (ie. rootblock). So, if you have for example the
disk which has damaged only block number 3, there is a good chance AllowBad
will be able to initialize this disk and make it available for file storage
(with low side of track 0 allocated as bad). But remember: such a disk
is extremely vulnerable and unstable. Be sure not to store any important
files on it!

In previous version (0.5ß) AllowBad also was able to initialize disks which
had the root track corrupted. Unfortunately, current version of AmigaDOS
cannot write to tracks which contain corrupted blocks (it can read from them,
however), so such disks most propably would be of no use anyway. In current
version the disk must have whole root track not corrupted to be properly
initialized.

This version of AllowBad is meant as a CLI command and cannot be used
from Workbench (it has no GUI, so no pain I think).

1.8   AllowBad 1.0: Usage

Standard template (can be obtained via use of question mark) looks like this:

DRIVE/K/A,NAME/K,OFS/S,INTL=INTERNATIONAL/S,DIRCACHE/S:

As you can see only one parameter must be specified – drive name. This is
standard doslevel device name such as 'df0:', 'ds1:', etc., case insensitive.
Must end with colon. Name of the disk must not exceed 30 chars (this limit is
imposed by current version of AmigaDOS). Names longer than permitted will
simply be truncated. If you want the filename to contain spaces, you must use
quotes. As of version 1.0 the name parameter is optional – if omitted, default
names will be used: 'WARNING' (if there were errors on disk) or 'Empty' (on
error free disks). Remaining two parameters (also optional) pertain to type of
filesystem used while initializing the disk. INTL (equivalent to

INTERNATIONAL) denotes INTL FFS (DOS3) and DIRCACHE – DC FFS (DOS5),
respectively. If you use both of them at the same time DIRCACHE will be used
(DC implies INTL anyway). When none of switches is present the disk will be
formatted with default normal FFS (DOS1).

Use OFS switch to format disks with OldFileSystem (1.3 Kickstart compatible).
But be warned, that 1.3 DOS ignores all protection bits except 'd'
(deletable) and you can access the faked dummy.file accidentally, causing
'Read/Write Error' requester to appear. So, don't be surprised when this
happens and take some care when using disks prepared by AllowBad under
Kickstart 1.3.

While formatting, the program can be interrupted with CTRL-c. If this is
so, execution is terminated with RC (return code) set to 5 (WARN) and
message '***BREAK' is printed.

1.9   AllowBad 1.0: Way of Operation

At start AllowBad checks whether the parameters issued by user are
correct (they are obtained through standard ReadArgs() function). At this
analizing stage, availability of disk unit is also confirmed. If disk is not
in use, AllowBad immediately allocates it (by Inhibit() function). Else
program quits with error message 'AllowBad failure: object is in use'.
Unfortunately some programs (such as great disk editor DPU 1.5 or recovery
utility Quarterback Tools 2.2) ignore the fact that the drive is inhibited
by someone else and allow you to work with such a drive. This could lead
to interference between those programs and AllowBad, resulting in
incorrectly formatted/initialized disks. This is NOT my fault, but
programmers of those utilities! My advice is not to use any disk utility
while AllowBad executes.

If everything went okay (and there is a write-enabled disk in drive) one
memory buffer is allocated – its size is three times one track (calculated as
follows: 3*BlocksPerTrack*512) plus 82 bytes. Thus currently the most
'memory-hungry' situation I can think of will be HD disk formatted using
floppy.device [(c) 1994-97 Orhan Dagistanli]. In this case AllowBad will need
3*25*512+82 (= 38482) bytes of free memory. The kind of allocated memory
(chip, public, etc.) depends of flags parameter in device's FileSysStartupMsg
(you can specify it in BufMemType parameter in mountlist).

Because Allowbad is system friendly, it uses standard device calls
for accessing the disk (via IORequest). First, each track of disk is
formatted (using command #11 – FORMAT) with special data pattern. Then (after
flushing device buffers for reliability) contents of this track is read back
from disk and compared with pattern data. If operation is successful, the
same track is written with zeros and once again verified. During all of
this program informs briefly about what is going on. Each error encountered
is notified in the second buffer and the appropriate message is diplayed.
Each track can be accessed up to four times, so AllowBad undoubtedly is not
the fastest formatter around. But when dealing with corrupted media,
reliability is what counts, not time.

When formatting completes, AllowBad attempts to initialize the disk – first
boot blocks are written (and verified) then so is root. If above could be
done, disk state info (as obtained during format stage) is analysed and place

for other control blocks is determined. These blocks include: – dircache info
block (if DIRCACHE switch was specified), bitmap block(s), file info block and
eventually some file extension blocks. The last two can be needed only if
there were errors detected.

AllowBad masks corrupted areas using dummy file which pretends to occupy
all the bad tracks. This keeps the AmigaDOS filesystems from using those
places and you can store files the same way as on good (error free) disks. To
avoid confusion the file is protected from reading, updating, deleting, etc.
and should remain as such (don't play with this file – it IS completely
faked and does not contain anything intrresting!) The name of the file
is 'dummy.bad'.

Because of way AllowBad works (and I can't think of anything better,
can you?) disks prepared by it can *only* be used under DOS, even that with
some limitations. Don't try to diskcopy to such a disk! Use DOS command
'copy' or any file managing program instead. Also, don't try to optimize bad
disks with Reorg or like. If you want fast directory listings use dircache
(OS 3.0 rules!) And remember that AllowBad DOES NOT repair anything – it only
allows bad disks to be used while they actually still remain bad!

On completion AllowBad informs you about number of blocks allocated (this not
includes boot, root, DC, bitmap and FIB blocks).

1.10   AllowBad 1.0: Bugs

              During my tests (well, not very intensive) no bugs were ←
                 detected, which
does not mean there aren't any. If you find any error or have some ideas
of improvement (or if you simply wanna chat a little, receive the source,
etc.) please
              contact
               me!

WARNING!
When using AllowBad with floppy.device take extreme care – this device seems
to be rather unstable hack and ocasionally gives some wild errors while
formatting, such like: no disk in drive. I thought this is a bug in my program
but everything seems to be ok and this weird behaviour only applies to this
particular device. If you find similiar errors happening with others devices,
please
              contact
               me immediately (I will soon be available via email).

1.11   AllowBad 1.0: History

              History:

V0.5ß – (24.12.95) – first release
V0.6ß – (3.3.96) – added some enhancements:
 – removing disk while prog executes is now handled properly
 – added waiting for user response before any action is done (security)

```
 - added OFS switch (but
                 watch out
                  1.3 freaks!)
 - displays 'cylinder' rather than 'track'
 - fixed minor bug
V0.7ß - (29.5.96) - minor fixes
 - fixed very stupid bug with disk labels longer than 30 chars
 - no longer crashes when attempted to run from WB
 - removed some even more stupid grammar errors in documentation ;)
V0.8ß - (19.4.97) - internal release with added support of floppy.device
V0.9ß - (28.5.97) - root track is now formatted first; this dramatically
    speeds up error detection of unusable disks
V1.0 - (27.8.97) - third Aminet release and propably the last version:
 - removed special support for floppy.device; use at least version 4.1 of it!
 - fixed serious bug with disks that require more than one bitmap block (f.ex.
   HD disk formatted in floppy.device format). Added check for maximal number
   of blocks per track - it has been set to 32 (seems enough for floppies, 25
   is propably the hardware limit, anyway)
 - added defaults for disk name; if you don't specify it, it'll be labelled
   'WARNING' (if errors occured) or 'Empty' (if disk was good)
```

1.12   AllowBad 1.0: Contact address

My e-mail address (may be temporary!): bloelle@polbox.com

or you can try snail-mail:

```
                    Mikolaj Calusinski
                   ul. Olsztynska 113/117
                    42-200 Czestochowa
                          POLAND
```

I hope you find this little proggy useful. Have fun!

```
                                         Mike.

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