MyFormat

COLLABORATORS

	TITLE : MyFormat		
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REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

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Chapter 1

MyFormat

1.1 Welcome to the MyFormat documentation

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                                   MyFormat v1.24
                       by Daniel J. Andrea II



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As some may have noticed, I have changed the "Distribution:" setting
in the Aminet README for all my programs. I have tired of receiving
offers in email for a "free" Aminet CD for Aminet contributors. By
the time the shipping and handling from Germany is added in to the
"free" CD, it would cost me almost as much as just buying it from a

source within the USA. As a result, I have decided to go along with
a few others in this policy. I will not allow my software to be
loaded onto any more Aminet CDs until the Aminet administrators really
do give me that free CD (meaning at NO cost to me, PERIOD).

An acceptable solution would be to allow for other than a single place
to get the free CD from (like in other countries as well). This would
be a much better solution for all involved.

1.2   The legal mumbo-jumbo for MyFormat

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No warranty of any kind is offered or implied for this software, or
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No fees can be charged for this software, other than the nominal fees
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media, not to exceed the amount of US $5 for a disk containing this
software. Copies of this software must include this documentation
file for redistribution through Fred Fish or other similar software
collections, and may not be altered in any way.

This software is offered as GIFTWARE. If you like it, then you can
send me something in payment of your choice (other programs, disks,
computers, cars, etc.) at the address listed in the
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                 section.

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to get the free CD from (like in other countries as well).

1.3   What is this thing?

MyFormat is a replacement for the Format command. I wrote this because
of the original Format that came with both OS2.1 and OS3.1 was severly
lacking several handy features which I found useful from Olaf Barthel &
MXM's Format replacement. I also found that their program didn't draw
the gadgets properly under OS3.1, thus MyFormat was born.

MyFormat works under both OS2.x and OS3.x, allowing certain extras under
OS3.x. When operating under OS2.x, both OFS and FFS, with or without

International mode is available. Under OS3.x, Directory Caching is
available. MyFormat does require at least KickStart v37 to run.

1.4   How to install MyFormat

To install, simply copy MyFormat and it's icon to your SYS:System
directory. If you want to replace the original Format command, rename
MyFormat to Format. MyFormat will work exactly as the original when
called from the Workbench.

1.5   How to use MyFormat

Usage of MyFormat is similar to Format. All the command line arguments
from Format are supported, along with some extras for the new features.
MyFormat can format disks with or without verifying, and can install a
valid bootblock which will work for both OS2.x and OS3.x.

A quick note here. I've had several users mention they would like to
see direct support for MultiFileSystem in MyFormat. This currently is
not possible, at least until the MFS author is willing to release info
on how to access MFS to change the current filesystem of the device.
However, MyFormat does somewhat support the MFS system. If a device's
filesystem is changed, either by inserting a different disk or from the
MFS commodity, all you have to do is click on the device again within
the Drives gadget and everything will be setup to format in the new
filesystem.

There are three new command line arguments, BADSECTORS, BADTRACKS,
INSTALL and NOVERIFY.

INSTALL tells MyFormat to install a valid 2.x/3.x Bootblock to make the
disk bootable. NOVERIFY tells MyFormat to turn off verification of the
tracks as they are written to the disk. The rest of the arguments work
the same as the original Format's arguments as listed in the DOS
reference manual.

The arguments BADSECTORS and BADTRACKS, tells MyFormat to mark bad
sectors in a FFS/OFS Bitmap if verify is enabled. The BADSECTORS
argument tells MyFormat to mark only those sectors found as bad in the
verify step, and BADTRACKS will mark the entire track (or "head") for
that cylinder as bad. If the NOVERIFY option is included, then
BADSECTORS and BADTRACKS are both ignored. BADTRACKS has priority over
BADSECTORS (i.e. if both BADTRACKS and BADSECTORS are on the commandline,
then BADTRACKS will be chosen. Note: this only works on FFS/OFS disks,
and will be disabled for any non-OFS/FFS disks.

If MyFormat is started by double-clicking its icon or from the shell
with no arguments, it will open a window on the Workbench screen with
several gadgets.

The Drives gadget shows the available disk drives attached to the
system. Just below it is the Size gadget, which shows the number of

tracks and the size of the drive in megabytes.

At the bottom of the window under the Drives gadget is a status window
which shows the current operations of MyFormat.

To the right is several checkbox gadgets, and two cycle gadget. The
"use Filesystem" cycle gadget selects the FileSystem to use for
formatting. Verify Writes turns on and off verification. Install Disk
turns on Bootblock installation. Create Icons creates the disk and
Trashcan icons for the disk. The "BadBlock marking" cycle gadget
enables badblock marking for FFS/OFS floppies, using either sector
marking or whole track marking as described in the CLI usage above. It
is dsabled on non-FFS/OFS formatted partitions and if verify is disabled.

The Auto Start function is used to set a two second delay for auto-
formatting of a disk inserted into any of the available drives, and will
append a three digit number to the end of the volume name for the second
and subsequent disks, which is incremented after each format. Do not
use an underline character in the volume name, as this may cause the
Auto Start number incrementing to fail. Currently there isn't much
error checking in the code for this. At this time the code assumes
there will be a valid Auto Start number in the volume name if there is
an underline character present. This feature allows almost hands-free
operation for multiple disk formatting. This option is not available
from the command line. If you plan to use this with MFS
(MultiFileSystem) running, set the filesystem you want to format to in
the MFS commodity BEFORE you set the Auto Start mode and insert a disk.
Not doing so can cause unpredictable results, and you may not get the
filesystem you wanted the disk formatted as. Also, MyFormat may read
the values from the device entry while MFS is changing things around and
get bad info, possibly causing a crash (I haven't had this happen yet,
but it is possible). There's currently no way around this situation,
until the author of MFS releases the info on how to set the filesystem
within MFS.

The last gadgets are the Name, Start, Quick, and Stop gadgets in the
bottom of the window. The Name gadget is a text gadget into which you
can enter the volume name for the disk to be formatted. Default name
is "Empty". The Start gadget starts formatting the whole disk, and the
Quick gadget starts formatting using the quick-format option. The
format can be interrupted at any time by pressing the Stop gadget.

During formatting operations several of the gadgets are disabled which
are options that cannot be changed. Those which are not disabled may
be changed at any time during format operations.

Note: The Drive gadget does not show as disabled under OS2.x because
    there is currently no way to disable that type of gadget under OS2.x.
    Any activity in or on that gadget will be ignored by the program
    during format operations, however.

1.6 Bugs? In MyFormat?

                    There are no known bugs at this time. If you find any, please ←
                        contact

me at the E-Mail address or Snail-Mail address in the
                author
                 section
with bug reports. Be sure to include information on what other
software was running and what kind of system you have. Bug fixes
will be incorporated into MyFormat as soon as possible.

Note: I have received some complaints about the size information not
       being correct for some devices. There is a program called
       ReadDevice included in this archive. It is a Shell only program
       for reading device info from the Dos.library's devicelist in
       memory. For example, to read info on DF0:, type this:

           readdevice df0:

       or for redirecting the output

           readdevice >t:temp df0:

       this will produce output to the standard output, in this case
       the shell's console. Redirect the output of the program using
       standard file redirection and include the output of the program
       in an e-mail letter to my
                address
                 . This should help me
       figure out how to correct the problem. Also, include info about
       what software is used to run the device, i.e. CrossDOS for PC
       format floppies, etc.

I had previously held information here in regards to the Consultron
products CrossMAC and CrossDOS. MyFormat now works correctly with
CrossMAC, but still won't format larger CrossDOS formatted partitions
(like a Zip drive). I have now, despite never hearing back from
Consultron, discovered the problem is with the CrossDOS included with
AmigaOS 2.x/3.x. These versions of CrossDOS will not format larger
partition sizes because it takes a special prepping program that only
comes with the full CrossDOS 6 Pro (commercial version of CrossDOS).
If you want to be able to do formats of larger CrossDOS disks with
MyFormat, then you will have to get CrossDOS 6.

1.7 Version history of MyFormat

   v1.0   -- Initial release.

   v1.01 -- Fixed minor bug in setting of Use_Filesystem gadget during
              startup and selection of drive to format. Also recompiled
              with SAS/C v6.55

   v1.02 -- Changed operation of Use_Filesystem gadget so that it is
              disabled on disks not using the standard Amiga Filesystem.
              e.g. PC formatted disks, PFS formatted disks, etc.

   v1.03 -- Changed arrangement of gadgets and how MyFormat responds to
              Workbench menu originated formats.

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v1.04  --  OOPS!  Bug creeped in during rearrangement of gadgets in
           1.03 regarding Auto Start.  Fixed so that Auto Start
           defaults to whole disk formatting.

v1.05  --  Altered Auto Start code to notify user at end of format
           with a DisplayBeep() call.

v1.06  --  Changed disk change sensing method to recognize all
           diskchanges.  This change was needed because the A3000's
           scsi.device didn't recognize the command I originally
           used for sensing disk changes.  This should now work with
           all removable media drives.  It works fine with my Iomega
           Zip drive on the A3000 scsi.device as unit 5.

v1.07  --  Found a bug in the disk type and size sensing code for
           non-Amiga formatted disks.  This mainly affected disks
           greater than 50 MB (the OFS size limit).  Now works.  Also
           has been recompiled with SAS/C 6.56.  Also, this is first
           version to be uploaded to Aminet.

v1.08  --  Fix minor bug in size info calulations which caused some
           really weird size info to be placed in the size gadget.
           Bug did not affect formatting the disk, just the size
           reported in the window.  Thanks to Jon Peterson for help
           in tracking this down.

v1.09ß --  Internal test versions during BadBlock marking development.
thru       Never released, because they failed miserably.
v1.12ß

v1.13ß --  Now includes Bad Block marking for FFS/OFS formatted
thru       partitions.  This can be set to either mark sectors or
v1.15ß     whole tracks as used in the bitmap.  Added warning
           messages for bad sectors on the RootBlock track and/or
           track 0.  Beta versions, never released.

v1.16  --  v1.15ß passed testing, and is now released to Aminet
           after re-compiling.

v1.17  --  The new warning messages were too long for screens less
           than 800 pixels wide.  Re-formatted the text.

v1.18  --  An elusive bug, which I never saw, was discovered by
           Carsten Sorensen in the GUI layout code.  I had
           mistakenly, way back in v1.03, set the topedge of some
           gadgets to a set value, rather than adjusting them
           according to the screen's font.  This has now been fixed.
           Also turned the optimizer back on in SAS/C with size
           optimization.  This cut the size of the code by a little
           more than 1K over no optimization for v1.18.  Might even
           be a little faster as well.

v1.19  --  Well, I did find another stupid bug on my part.  I had
           created the BadBlocks type gadget with some bad info in
           the list it used for defining the available settings.
           Caused some problems with MCP's cycle-to-menu option
```

(caused lockups). I'm surprised this didn't show up until
now. Also removed a call that would force the window to
the front whenever Auto Start mode is enabled. I will be
making some changes in MyFormat 2.0 to make this optional,
since it is rather annoying to have the Workbench screen
pop to the front while trying to read email on Thor's
own screen.

v1.20 -- Found another rather obscure bug, though I don't think
it ever affected anything. I had mistakenly set the
dostype for the disk initialization to always be an Amiga
type, as in FFS. I had thought this might be why the
CrossDOS formatting of larger disks didn't work, but it
didn't change anything on formatting my Zip drive to PC
format. See the note above about bugs and Consultron for
more info. Now compiled with SAS/C 6.58.
Extra note on 1.20: This bugfix seems to have fixed the
CrossMAC formatting problem. If anyone still has problems
with this, let me know. Also included a new version of
readdevice with this re-upload. Readdevice was causing
some Enforcer hits when string pointers in the device
entry are not set. Now it includes some more pointer
checks for those entries and will accept device names
with or without the ':'.

v1.21 -- Somehow, I missed putting in a bad sector counter back
during the development of the bad sector code. There
now is a counter added that will display the number of
bad sectors found instead of the 'Short delay' message.
Also, I decided there was no point to updating the
BitMapBlocks if no bad sectors were found, so MyFormat
now checks the bad block counter before writing any
of the BitMapBlocks.

v1.22 -- Added volume name numbering to the Auto Start function.
MyFormat now adds an underline and a three digit number
to the end of the volume name after the first Auto Start
formatted disk is complete. At the end of each Auto
Start format, the number will be incremented. Currently,
this will wrap around to '000' after it gets to '999'.

v1.23 -- Altered size readout code again. Will now only figure
in the SectorsPerBlock setting for FFS filesystems on
Kick 40+ systems. Since none of the other filesystems
I've seen seem to properly support this setting, this
hack was necessary. Note: the majority of misconfigured
partitions that this shows up on seems to be caused by
using HDToolBox to set up the partition for filesystem
blocksizes other than 512 bytes. HDToolBox from OS3.1
sets SectorsPerBlock to something other than 1, even
though all the RDB spec info I have says SectorsPerBlock
MUST be set to 1. The NDUK for OS3.1 (the last one put
out by Commodore) does NOT say anything about this,
other than FastFileSystem got SectorsPerBlock support
added in FFS v40.1. If anyone has any newer info on
this, please let me know.

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     v1.24  --  Made minor change to FormatFromWB routine.  Now the Drives
                gadget will move the scroll to show the drive selected
                from the Workbench to be formatted.  Thanks to
                Michael Taylor for pointing this out.
```

1.8   How to get in contact with me

I can be contacted through Internet E-Mail at:

        dandrea@unix.tfs.net

or through Snail-Mail at:

        Daniel J. Andrea II
        1331 Metropolitan Ave.
        Leavenworth, KS 66048
        U.S.A.

To check up on MyFormat development and other projects when they arise,
point your web browser at

        http://www.tfs.net/~dandrea/

MyFormat was developed on an Amiga 500 with a Microbotics VXL*30/RAM*32
accelerator and on a 25 MHz A3000 using SAS/C v6.0 thru v6.3 and
v6.55 thru v6.58.

1.9   Future development of MyFormat

Next I will try to work in a reworked, font-sensitive GUI as well as
locale support, along with some type of prefs capabilities. The prefs
will be a VERY powerful addon, with the ability to set almost
everything in the GUI to what the user would rather have than what the
device itself says is the default. This way, like I always have to do,
you won't have to change the filesystem gadget from OFS to FFS for
Standard Amiga floppies. I will also work in to have the device volume
displayed alongside the device name in the Drives gadget (i.e. the disk
in DF0: is called 'Empty', so the line in the Drives gadget would show
'DF0: Empty' or similar).

Currently, most of these new items won't be added until I get started
on version 2 of MyFormat. After looking over the code, I realize the
GUI and the program are too inter-dependent on each other right now.
Some of these seemingly minor changes that I have considered adding
would require a major re-working of the internals of MyFormat. Since
I'm getting ready to re-write it all, it will be easier to work these
new items in during the re-write than to hack it in now.

1.10   Many thanks to....

Thanks to Jon Peterson for helping with some of the size info bugs.

Many thanks to my beta-testers from v1.13ß-v1.15ß:
Iwan Heskamp, Ron Burman, Jon Peterson, Max Headroom (? not sure if
this is real name), and Javier De Las Rivas Fdez. There was one other,
but all I have is "Software Solutions" for a name and that he is in the
Bahamas. Thanks to you all.

Also, thanks to Carsten Sorensen for pointing out the bug fixed in v1.18,
and to Michael Taylor for the one fixed in 1.24.

SAS for a great compiler (which now HAS PowerPC support!). Maybe they
are planning to get back into the Amiga? Time will tell...