FBackNG

COLLABORATORS			
	TITLE : FBackNG		
ACTION	*NAME*	*DATE*	*SIGNATURE*
WRITTEN BY		July 8, 2022	

REVISION HISTORY			
NUMBER	DATE	DESCRIPTION	NAME

Contents

Chapter 1

FBackNG

1.1 FBackNG

```
                        FBackNG Version 1.1.0
====================


FBack/FMirror Revamped for the future...



 Disclaimer

 Introduction

 Legal

 Shareware

 Requirements/Installation

 FBackNG Usage and Options

 Examples

 Common Problems/Error Codes

 FBackNGUI Usage/Options

 Contact and Support

 ToDo

 History
                Written by Chris De Maeyer – Ceppe!
```

1.2   Disclaimer

Disclaimer

   The author cannot be held liable for the suitability or accuracy of this
   manual and/or the program(s) it describes. Any damage directly or
   indirectly caused by the use or misuse of this manual and/or the program
   it describes is the sole responsibility of the user her/him self.

   However, to aid in developing this program the user is asked in a gentle
   way to report any strange behaviour of the program.

1.3   Introduction

Introduction

   If you have used this program before try to make the effort to read
   this guide again. Some useful info is updated, not listed in previous
   versions. The program is a complete rewrite of a program formerly known
   as FBack/FMirror.

   FBackNG is a daily backup tool. It will check files and copy
   to your backup location if they changed. Additionally it runs a scan
   between the original location and the backup, and updates the backup
   creating a mirror this way. Working in this fashion will get you up
   and running again after HD problems/replacement. See example and Q&A
   section for common and other usages.

   Changes (in relation to FBack/FMirror):
       – complete rewrite of directory/file parser to support any partition
         size with any number of files.

       – added features to enhance portability (standard ANSI functions and
         UNIX command line parsing).

       – the program now comprises the two functionalities of the fback/fmirror
         suite, one program serves all. The program will now run in phases.
         First a backup phase will run which saves all changed files, then
         if you specify it, a mirror phase is executed. It will synchronise
         the backup with the original. You can also specify to skip backup
         phase and only run a mirror phase.

       – extra care has been taken to make it idiot proof, extensive reporting
         and distinct error detection to make troubleshooting easier.

   Changes (in relation to FBackNG):
       – argument parsing now POSIX compliant.

      – added Delete Phase which will delete all empty directories on the backup ↩
        .

      – added FBackNGUI, this is a StormWizard driven frontend which enables you
        to set options and paths from a window. You can save/load settings
        to file(s) for easy configuring.

1.4 Legal

Legal

```
Type  : – SHAREWARE.

Terms : – no modifications to any file in this distribution archive.
        – add no additional files to the distribution archive.
        – use this program longer than 30 days, then you should reward
          the author with a shareware fee.
        – after registering you will receive your personal keyfile, this
          keyfile will enable all options. The keyfile is valid for all
          remaining versions which are named 'FBackNG'.
        – author can not be held responsible for data loss, the program
          has been tested and the behaviour has been described below.
        – any commercial distribution is prohibited.
        – the unregistered version may be freely distributed on cover
          disks and compact discs.
        – the keyfile is personal and coded with the registered user's
          name and may not be distributed in any way.
        – by registering the user accepts all above mentioned rights
          and obligations.
```

1.5 Shareware

Shareware

The unregistered version has following restrictions:

```
        – shareware banner pauses
        – recursive option disabled (= single dir. operation).
```

To benefit from full options you need to register:

```
   Rates    USD 15  for delivery by email
            USD 20  for delivery by mail (Europe – EEG)
            USD 25  for delivery by mail (rest of world).
```

Payment with cash/eurocheque in USD/DM/£ (no coins)

```
 Click  here  to view/print the regform, then mail
to following
            address
            .
```

1.6 Requirements and Installation

```
Requirements
```

```
Properly installed Amiga (haven't we all!). To use compression you will
need the XPK library and tools.
```

```
Installation
```

```
Just copy the FBackNG executable to the C: path. For more power
CPU's (68020/30/40/60) use the "FBackNG.20" version.

The FBackNGUI executable and FBackNGUI.wizard is placed in a
directory of your choice, this program will look for the FBackNG module
in your C: directory.
```

1.7 FBackNG Usage and Options

```
FBackNG Usage
```

```
FBackNG is a CLI command and can be invoked from the Shell or icon with
tool set to Iconx. It can be used in command scripts. To use from Workbench
you should use the new FBackNGUI frontend (see section FBackNGUI).

The program uses standard UNIX command templates, so typing 'FBackNG -h'
will list all the options available.

    Unix options are of the form:

        -<letter>              for flags
        -<letter> <value>      for parameters
        -<letter><letter>...   for flags

        fe. -e
            -b thevalue
            -tmr

Options are free form, meaning they can be typed in without taking in
account the sequence in which they appear.
Options are CASE SENSITIVE.
```

See example section.

Detail explanation of options

    h   - display HELP.

    b <path>   - the full path of the SOURCE directory (what to backup).

                        fe. sys:
                            work:data

    o <path>   - the full path of the DESTINATION directory (where to backup ↩
).

                        fe. dh1:mirror/sys
                            backup:

    s   - Adding this flags will merely report action it would take
                    if this flag was not active. Call it a SIMULATE mode.

    r   - include subdirectories RECURSIVE.

    v <0|1|2|3>   - specify the output sent to the user, level of VERBOSITY.

                        0 = no output
                        1 = normal output (default)
                        2 = detail output
                        3 = debug output

                    Note on performance: the more you send to the console,
                    the slower the program will work. To get optimal speed
                    specify option 0, and let the output write to file using
                    the -l option.

    i <pri>   - set PRIORITY (0 to 5), in the old days you could
                    use a task manager to do this, now you can simply add
                    it as an option to speed-up the process.

    c <packer>   - enables COMPRESSION mode, supply preferred packer. In this
                    mode make sure your recovery disk includes the XPK library
                    + some XPK unpacker (fe. xpk [included]) to restore files.

                        fe. -c nuke

    e   - specifying this option will ignore the archive bit, thus
                    copying EVERY file (= full backup).

```
        t              - updates date/time on destination, TOUCH it with current
                         system date/time. If not specified the program will clone
                         date/time from source. Remark: time set is not localized.


        n              - specifying this option will instruct NOT to copy the
                         filenotes. By default comments are copied.



        g <pattern>    - only process files which match the PATTERN.


        l <file>       - write generated output to a LOG file. The log contains
                         output of level DETAIL. The data is appended to the log
                         if it exists (so you can keep a history).


        y <date>       - only backup files BEFORE given date (not incl.date)

                            DATES ARE IN ADOS FORMAT = DD-MMM-YY
                                            eg. 23-jun-98


        a <date>       - only backup files AFTER  given date (not incl. date).


        m              - after backup run a MIRROR phase.


  !NEW  d              - runs a DELETE phase which will delete empty directories
                         in the backup (destination).

        k              - do not run a BACKUP phase, obviously specifying this
                         option without the m option is invalid.
```

1.8 Examples

```
    Examples


    This section lists some examples of usage. If you have scenarios of your
    own then send them in, to help others I'll include them here.

        - Backup changed prefs files:

            ; Startup-sequence
            ...
            fbackng -m -v 0 -r -b sys:prefs/env-archive -o work:backup/prefs
            ...

        - Backup and mirror a disk at startup & add to logfile:
```

```
        ; Startup-sequence
        ...
        fbackng -rm -b sys: -o mirror:boot -l T:FBackNG.log
        ...
```

– Backup and mirror files before shutdown:

```
    .key FLAG
    .bra {
    .ket }
    ; Shutdown script
    echo "Just a moment, valuable files are checked..."
    ;
    if {FLAG} EQ "GFX"
        fbackng -r -b work:data/gfx -o backup:data/gfx -v 0
        echo "Gfx data has been saved."
    endif
    if {FLAG} EQ "ALL"
        fbackng -r -m -b work:data -o mirror:data -v 0
        echo "All data has been mirrored."
    endif
    ;
    fbackng -rm -b sys:prefs -o mirror:prefs -c blzw -v 0
    echo "System preferences have been saved."
    ;
    if exists C:Halt
        echo "It now safe to switch me OFF !"
        Halt
    endif
```

– Backup certain files in a range of dates:

```
    fbackng -r -b data:texts -o backup: -t -a 01-feb-99 -y 10-feb-00
```

    Will backup the files from 02 february 1999 till 09 february 2000.

1.9   Common Problems and Error Codes

Common problems

```
    Q: When I backup to a JAZ/ZIP drive it takes a long time !

    A: Add a large number of disk buffers, eg. 'AddBuffers JAZ5: 2000'.
       This is not caused by FBackNG, but due to the way JAZ/ZIP works.



    Q: I'm a bit confused by the options, how do I only mirror ?

    A: Specify as options -km, then the backup phase is skipped, and
       a mirror phase is triggered.
```

Q: Can this program be used to copy files between a certain range of
   dates ?

A: Yes, just specify source/dest directory, and the range of dates,
   make sure you toggle the every switch:

   fe.

       fbackng -b id0:text -o id0:text/jan98 -a 31-dec-97 -y 01-feb-98 -e

   The order of evaluation that FBackNG takes is:

       If "Pattern Option" then "File Matches Pattern" ?
             If "Every Flag" Or "Archive Bit" ?
                   If "Dates Option" then "Compare File Date" ?
                         If "Simulate Flag" ?

Error messages (Hmmm, your finger slipped ? Or something more serious...)

       ARGUMENT/COMMAND LINE ERRORS
       ============================

       fbackng: fatal: invalid argument-- %c

           You substituted and invalid commandline option. Review your
           commandline.

       fbackng: fatal: argument required for %c

           You typed a commandline option which requires a value. Review
           your commandline and substitute a value for the option.

       fbackng: fatal: source or destination path required

           When batch mode is not active it is necessary to define the
           options -b,-o to set the original path and backup path.

           Review the commandline and issue:

                   -b source -o destination

           in the commandline.

       PROCESSING ERRORS
       =================

       fbackng: fatal: backup process error (n)

FBackNG encountered an error while searching and processing
the filesystem and this in the backup phase.

fbackng: fatal: mirror process error (n)

FBackNG encountered an error while searching and processing
the filesystem this during the mirror phase.

Overview of error return codes relating to processing:

```
Error    Description
-------------------------------------------------------------
1        Could not lock directory, a directory could not be
         locked for examining. Try to reboot your system or
         closing all applications, then try again.

2        Memory allocation error, if you have limited memory
         then this can occur.

3        Allocation of DosObject failed. Filesystem or memory
         problems could cause this.

5        Could not open destination file. Disk full ?

6        Error while copying source to destination. Check
         protect bits on destination.

9        Could not lock a file. It may be in use by another
         process. Try rebooting, then retry.

10       Could not get file information. Errors 10 upto 18
         could indicate a corrupt file or filesystem.

11       Error cloning file datestamp.

12       Error deleting file.

13       Could not set archive flag on file.

14       Could not set comment on file.

15       Error cloning protect flags.

16       System datestamp could not be set.

17       Volume not found.

18       Could not set delete flag on file.

19       Error deleting a directory.
```


LOGGING ERRORS
==============

```
fbackng: fatal: could not initiate log (n)

    FBackNG encountered an error while attempting to access the
    logfile for the first time.


fbackng: fatal: cannot write to log <file> (n)

    FBackNG got an error writing to the log.



Overview of logfile related error return codes:

    Error    Description
    ------------------------------------------------------------
    7        The logfile could not be opened. It could be locked
             by another process. Try identifying the lock, either
             close all running processes, or reboot. Then, retry.

    8        An error occurred while writing to the logfile. This
             could indicate a DOS error, ie. protection, no more
             space, etc. Examine your filesystem and make sure
             enough resources are available.
```

1.10 FBackNGUI Usage and Options

```
FBackNGUI Usage


   FBackNGUI is the frontend which has all the options in a window, you can
   save and reload settings all from this program.


Detail explanation of options


    Source      - the full path of the SOURCE directory (what to backup).

                    fe. sys:
                        work:data


    Destination - the full path of the DESTINATION directory (where to backup) ←
       .

                    fe. dh1:mirror/sys
                        backup:


    Recursive   - include subdirectories RECURSIVE.


    Simulate    - Adding this flags will merely report action it would take
```

```
                          if this flag was not active. Call it a SIMULATE mode.


    Every        - specifying this option will ignore the archive bit, thus
                   copying EVERY file (= full backup).


    Touch        - updates date/time on destination, TOUCH it with current
                   system date/time. If not specified the program will clone
                   date/time from source. Remark: time set is not localized.


    No Notes     - specifying this option will instruct NOT to copy the
                   filenotes. By default comments are copied.


    Mirror       - after backup run a MIRROR phase.


    Backup       - run a BACKUP phase.


    Delete       - run a DELETE phase.


    Verbosity    - specify the output sent to the user, level of VERBOSITY.

                            Quiet
                            Normal
                            Detail
                            Debug

                   Note on performance: the more you send to the console,
                   the slower the program will work. To get optimal speed
                   specify option 0, and let the output write to file using
                   the -l option.


    Log          - write generated output to a LOG file. The log contains
                   output of level DETAIL. The data is appended to the log
                   if it exists (so you can keep a history).


    Pri          - set PRIORITY (Zero to Five), in the old days you could
                   use a task manager to do this, now you can simply add
                   it as an option to speed-up the process.


    Packer       - enables COMPRESSION mode, supply preferred packer. In this
                   mode make sure your recovery disk includes the XPK library
                   + some XPK unpacker (fe. xpk [included]) to restore files.

                           fe. nuke

    Pattern      - only process files which match the PATTERN.
```

```
        Before        - only backup files BEFORE given date (not incl.date)

                          DATES ARE IN ADOS FORMAT = DD-MMM-YY
                                                eg. 23-jun-98

        After         - only backup files AFTER  given date (not incl. date).


        NOTE: the date format is checked as soon as you type enter, if date  ←
            entered
        is invalid you will be warned (displaybeep) and the entry will be cleared.


    Startup Prefs

        You can save a preference file with name "FBackNGUI.prefs" in the  ←
            FBackNGUI
        program directory. If you do this file will be taken as default options  ←
            for
        the settings. If no such file exists, all settings will be blank at  ←
            startup.
```

1.11 Contact and Support

```
  Contact address


    For mail/information/problems/registrations/bugs write to the address
    below, state version & add postage for reply:

            Visionary Software
            tav. Chris De Maeyer

            Norbertijnenstraat 4
            B-2040        BELGIUM
            EUROPE - WORLD - UNIVERS

            Internet :ceppe@pandora.be
                      http://fly.to/visionary
                      (latest updates will be here first!)


  Development info


    FBackNG sources were written in C and compiled using SAS/C V6.58.
    FBackNGUI compiled using StormC V3.0.

    Part of file I/O has been coded using standard system library functions.

    Where possible ANSI functions were used. This surely makes it a bit slower.
    This version was developed with portability in mind. The old program had a  ←
        GUI
    part, which has been rewritten in this one. This also for portability.
```

1.12 ToDo

```
ToDo
```


```
   Any suggestions/motivations/gifts from you are welcome !
   Thanks to all guys & dolls sending me registrations.
   It is because of YOU registering for this program, that it keeps getting  ←
       better
   and better...
```


1.13 History

```
History
```


```
   The actual version can be determined by typing 'version fbackng' in a
   CLI window. It is recommended to always upgrade to the latest version.
```


```
   V0.9.0  BETA RELEASE
             - command parser introduced.
             - file/directory parser introduced.
             - copy routine introduced.
             - some debug code enabled.
             - limited version which takes no action other than parsing the
               command line and then scanning the filesystems.
   V0.9.1  BETA RELEASE
             - file functions (set flags, clone comment/date, etc).
             - every file is checked on destination before copy is done, and
               action is taken.
             - file/directory parser changed to host both backup and
               mirror phases.
             - increased file/directory parser temp. allocation.
             - stack 64kb and compiled with STACKEXTEND.
             - simulate switch implemented.
             - skip backup phase switch implemented.
             - nonotes switch implemented.
             - touch switch implemented.
             - logfile option implemented.
             - compress option implemented.
             - backup phase is implemented.
             - cleaned up all reported compiler optimizations.
   V0.9.2  BETA RELEASE
             - file/parser handler changed to handle full paths.
             - enabled security.
   V0.9.3  BETA RELEASE
             - fixed destination path creation.
             - mirror phase reports files in debug verbose mode.
```

```
V0.9.4   BETA RELEASE
         - mirror phase implemented.
         - priority implemented.
         - before/after date implemented.
         - this BETA is very useable (if you register)!
V0.9.5   BETA RELEASE
         - MIRROR phase path creation fixed.
         - MIRROR phase now only checks existenz and not readability.
V1.0.0
         - removed all unnecessary code
         - added executable for 68020 and over
         - added Amigaguide.
V1.1.0
         - getopt() POSIX compliant.
         - added DELETE phase.
         - added FBackNGUI frontend.
```