

**FBackNG**

<b>COLLABORATORS</b>
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	<i>TITLE :</i> FBackNG		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
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# Chapter 1

## FBackNG

### 1.1 FBackNG

```
FBackNG Version 1.2.1
```

```
=====
```

```
FBack/FMirror Revamped for the future...
```

```
Disclaimer
```

```
Introduction
```

```
Legal
```

```
Requirements/Installation
```

```
FBackNG Usage and Options
```

```
Examples
```

```
Common Problems/Error Codes
```

```
FBackNGUI Usage/Options
```

```
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.
```

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## 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 V1.1.0):

- added '-u' option which instructs the program to leave the archive flag of the source file in the original state.
- added 'No Archiv' option to FBackNGUI.

Changes in relation to 1.2.0:

- removed need for keyfile (source/binary = freeware)

## 1.4 Legal

### Legal

Type : - FREeware.

---

## 1.5 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 a path (fe. C:) accessible to the CLI shell (so in your PATH statement).

The FBackNGUI executable and FBackNGUI.wizardis placed in a directory of your choice, this program will look for the FBackNG module in your PATH as set during startup.

## 1.6 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.

### Command template

[Click here for template.](#)

### 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. dhl: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.
  
- 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.
  
- u                   - leaves the archive flag of the source file intact. If  
                    this option is left out the source file will be marked  
                    with the archive flag.

## 1.7 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.

## 1.8 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.

## 1.9 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.

GUI

[Click here](#) for a screenshot.

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. dhl: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).
- No Archiv    - leaves archive flag of source file intact.

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.

## 1.10 History

### FBACKNG 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
  - added DELETE phase.
  - added FBackNGUI frontend.
- V1.2.0
  - added noarch option (user request).
- V1.2.1
  - removed keyfile need.

#### FBACKNGUI History

- V1.0
  - first release with options for FBackNG V1.1.0
- V1.1
  - added 'No Archiv' option for FBackNG V1.2.0