

# **FloppyFlux**

Andrew Bell

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

# FloppyFlux

### 1.1 Welcome to the FloppyFlux help guide.

Guide to FloppyFlux version 1.2

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Introduction

An introduction to FloppyFlux.

Features

To tempt you :)

Legal

Important DISCLAIMER, DISTRIBUTION & COPYRIGHT info.

Installation

How to install the software.

Requirements

What you need to use this program.

Usage

How to use the program.

Limitations

What the program can't do.

History

Development history of this program.

Future

What the author might add in the future.

FAQ

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Problem solver.

Author

About the author (Hey, that's me!)

Credits

Credit info and thanks.

## 1.2 Introduction

Introduction to FloppyFlux

Short introduction:

FloppyFlux is a floppy disk backup program that lets you store old floppy disks on your harddrive as 900K disk images.

Long introduction:

Have you had your Amiga for so long that you've built up a large collection of old floppy disks, and no matter how hard you try to keep them good, they still manage to get read/write errors?

Do you have millions of old mega-demo disks, PD disks, magazine disks, etc. that you never use much, but you'd still like to hold a copy of, on your harddrive, so that you can write them back to another (good) floppy at a later date?

If you answer yes to any of the above questions, FloppyFlux might be the program for you. If your harddrive has loads of free space, you can now quickly store your old floppies as 900K "disk images". You can even compress these disk images to save some space, if you have XPK installed.

Please read the following points before starting the program:

1. FloppyFlux does not just "copy" files off your floppies, but instead reads the whole disk and dumps it to a file (disk image), on your harddrive. This means that non-standard disk formats can be backed up too.
2. FloppyFlux is not a replacement for DMS. FloppyFlux is designed for private users wishing to store their old floppies, and is not designed for creating disk images that are going to be distributed.
3. Although FloppyFlux can read some types of non-DOS disks, it cannot backup protected disk, such as old commercial games like Shadow Of The Beast 2, Turrigan 2, Overdrive, Project-X, etc. And it never will be able to backup these kinds of disks - period.

Only disks that can be read by the trackdisk.device can be stored. This means that DOS disks, most magazine coverdisk, most mega-demos, most PD disks and so on, can be stored.

4. Only double density (DD) disks can be stored, and not high density (HD)
-

disks. This should not be a problem for most Amiga users because double density disks are more common, but anyone attempting to back up a high density disk on a high density drive should be aware of this.

5. You need a lot of harddrive space. Each standard Amiga DD (double density) disk image requires about 901120 bytes of harddrive space. If you have the XPK system installed and have lots of free memory plus a fast CPU, you can compress the incoming disk images, so that they'll take up less harddrive space.

## 1.3 Installation

Installation

You must have the gtlayout.library system installed on your system. The latest version can be found on the Aminet at dev/gui/gtlayout.lha. A suitable version has been included.

If you have the XPK (v5+) system installed, then you can take advantage of the compression/decopression features provided by FloppyFlux. But XPK is not required.

The XPK system can be found on the Aminet at util/pack/xpk\_User.lha.

After extracting the archive, just drag (in WB) the FloppyFlux drawer to where you want it.

Or if you're using a file manager just copy the drawer (with its icon) to where you want it. Make sure the drive that FloppyFlux resides on has a lot of free space.

## 1.4 Usage

Using the program is straight forward. Here are the windows that you will encounter.

The main window  
This is the first window you see.

The image attributes window  
Edit the details of a disk image.

The settings window  
Configure the settings for FloppyFlux.

The information window  
Show some information regarding FloppyFlux.

The main window's pull down menus  
Details about the pull-down menus.

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All of the incoming disk images are stored in the  
DiskImages drawer

## 1.5 History

The history of FloppyFlux (new entries are at the top)

FloppyFlux 1.2 (Sun/27/Jun/1999)

- The user can now drag icons from WB into the main window. This will make it easier to import disk images.
  - The user can now hide the FF GUI. To do this WB must be open, because FF creates an AppIcon on the Workbench. Currently FF uses it's own .info file for the AppIcon image.
  - The main FF window now has a set of pull-down menus.
  - The user now has more control over compression. These new features can be access via the Image menu. They are called Pack selected, Unpack - selected, Pack All, Unpack All.
  - Disk images can be imported from and exported to files.
  - The main list now indicates what disk images have been packed. It also shows the compression method.
  - FF will automatically insert the disk's name in the Image Attr window when reading a new disk. This does not work for non-DOS (NDOS) disks (such a demos, etc).
  - FF now uses a simple cache file system to speedup directory scanning.
  - FF handles and reports XPK related errors better now.
  - Changed the way the XPK library is opened at startup. If it's available, it'll always be opened, regardless of the current compression settings. This makes life less confusing :)
  - The width of the settings XPK listview and the image listview should now stay fixed.
  - FF will not complain if an outgoing disk image is too big. Instead only the first 901120 bytes will be saved to the floppy.
  - FF now inhibits the floppy drive before reading or writing to it. This ensures that all applications running cannot use the drive while FF is working with it.
  - When canceling a "Delete All" operation, a requester is not displayed stating that nothing was deleted, instead user is notified via status string. This makes life less annoying.
-



- Improved stack checking. FF now changes it's stack size to 16KB internally if it's allocated stack size is less than 16KB. If the allocated stack size is greater than 16KB, then the stack is not affected.
- FF will now alert the user if it already running. A requester will be displayed asking the user if they want to start another copy.
- FF will rescan the disk image drawer when it has been changed. This can be useful if another program is such as Dopus is copying disk images into it. Note: This does not work with all filing systems, if this is the case then FF will function normally but it will not see the changes being made by the external program.
- The source code has now been split into smaller modules.
- Extended the height of the main image listview.
- Many miscellaneous small fixes and changes.

FloppyFlux 1.1 (Sun/25/Apr/1999)

- First working version.

## 1.6 Future

The future

Due to lack of interest, this might be the last version of FloppyFlux.

Contact the author via e-mail at: [andrew.ab2000@bigfoot.com](mailto:andrew.ab2000@bigfoot.com)

## 1.7 Author

If you have have suggestions on how to improve this program, or if you have any problems/bug reports please contact the author (Andrew Bell) at:

[andrew.ab2000@bigfoot.com](mailto:andrew.ab2000@bigfoot.com) (Andrew Bell)

or visit my website for the latest updates of this program:

<http://www.homeusers.prestel.co.uk/ab2000>

## 1.8 Requirements

To use this program the following Amiga setup is required:

Your Amiga setup:

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GTLayout.library (available on Aminet at dev/gui/gtlayout.lha)  
Amiga OS 3.0+ (exec.library v39+)  
At least a MC68020 CPU.  
A harddrive, size depends on how many images you will be storing.  
Some fastram is also recommended.

Optional:

The XPK system version 5.0+ (only if you want compression).  
(this is available on the Aminet at util/pack/xpk\_user.lha)  
About 2 MB of fastram to use the compression features.

Note: Different XPK packer sublibs (methods) may demand different system requirements. For example, some might need more memory than others or some might require a faster CPU.

Note2: The XPK system has not been included in the FloppyFlux package due to bandwidth reasons.

## 1.9 Limitations

Current limitations of the program

- Does not support HD (high density) floppy disks, only DD (double density) type.
- Source drives limited to: DF0, DF1, DF2 and DF3.
- Compression of disk images requires a lot of memory. About 2MB of fast. (Most serious Amiga user should have more than 16MB these days!)
- It cannot backup copy protected disks, and never will. This is because most copy protected disk (ie: games) have their own special disk format and most use their own custom MFM decoding routines along with non-standard sync words. Such disks are designed to be as anti-trackdisk.device as possible and are therefor not supported.

## 1.10 FAQ

Q: What's a Disk Image?

A: A disk image is a special file that you can store on your harddrive. It contains all the data from a floppy disk, allowing you to "recreate" that floppy disk at a later date. Each image is about 901K when not compressed.

Q: How big of a harddrive do I need to use FloppyFlux?

A: This depends on how many disks you're going to store. A standard Amiga double density (DD) disk image requires 901120 (901K) bytes of harddrive space.

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This size is calculated with  $(\text{TRACKSIZE} * 11) * \text{AMTOFTRACKS}$ . Where TRACKSIZE is 512 bytes and AMTOFTRACKS is 160 tracks, 80 on the upper disk surface and another 80 on the lower disk surface.

So for example if you wanted to store twenty disks this would require  $901120 * 20$  bytes, which is 18022400 bytes, about 18MB. But if you have disk image compression turned on, then this figure will be smaller.

Q: Why can't I backup my old commercial Amiga games?

A: Most old Amiga games that came on floppy disks are copy protected. This means that the data is stored in such a way that conventional (trackdisk.device) methods cannot access it. This stops people from making pirate copies of the game with a disk copier.

Q: What is the trackdisk.device?

A: A special Amiga device controller that allows applications such as FloppyFlux to read/write information from/to the floppy drives (DF0: DF1: DF2: and DF3).

Q: What is XPK?

A: XPK is data compression system for the Amiga, that is stored in the LIBS: directory of your Amiga. It is used by FloppyFlux to compress the disk images you are storing.

Q: I can't hide the GUI! Any suggestions?

A: Make sure that the FloppyFlux.info file resides in the same directory as the main FloppyFlux program.

## 1.11 Features

Features (maybe one day this list will get bigger :)

- Store your old floppies as disk images on your hard drive.
  - Quickly save your floppy images back to floppy disk.
  - Compress all of your stored disk images with XPK.
  - Font sensitive GUI that can be iconified. Uses the gtlayout.library system.
  - Simple set of pull-down menus for quicker access to FloppyFluxes features.
  - Drag icons from Workbench into the main window. This lets you quickly import disk images.
  - You can import disk images from different locations, not just DFx:.
  - Easy to use.
-

## 1.12 Credits

CREDITS:

Design & Programming : Andrew Bell

GUI layout engine : Olaf 'Olsen' Barthel

Thanks to the gtlayout library, I was able to design the GUI very quickly, thanks to Olaf for developing this library. It was a great help!

XPK compression system : Dirk Stöcker,  
Christian von Roques,  
Urban Dominik Müller &  
Bryan Ford.

Thanks to these people for their work on the XPK system.

Also thanks must go to Phil Vedovatti for his NewIcons. The icons for the FloppyFlux document files were taken from the AESicon8 package, which is available from the Aminet at [pix/nicon/AESicons8.lha](http://pix/nicon/AESicons8.lha).

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xpkmaster.library is Copyright © 1999 Dirk Stöcker,  
Christian von Roques,  
Urban Dominik Müller &  
Bryan Ford.

## 1.13 The main window

The main window

This is the first window that's opened. From here you can maintain your floppy disk collection. The large box in the middle of the window is known as the image listview. This listview shows all of the floppy images that you have stored, along with their sizes in bytes. Also displayed is the pack status that each image along with the XPK compression method used.

Note: The actual disk image files that are listed in the listview are stored in a directory called "DiskImages", which is located in the same directory as the FloppyFlux executable.

Since version 1.2, you can now drag icons from the Workbench into the main window. Doing so will let you import disk images from other locations on your hard drive. These disk images will be compressed if you have FloppyFlux configured to do so via the  
Setting window

.

Also on the main window are the following gadgets:

[ Drive ]

Change the current drive. Change this to the floppy drive that you want to work from. If you initiate any floppy disk IO, then FloppyFlux will attempt to use this floppy unit.

Currently you can select one of the following floppy units:

DF0, DF1, DF2 or DF3.

DF0 is normally the internal drive, DF1 is first external drive that you have connected, and so on.

[ Read Disk Image ]

Press this to begin reading a disk. Before the actual disk is read, the

image attribute window  
will be displayed. From here you can enter some  
details about the disk.

If the disk that is currently in the drive is a DOS disk, then FloppyFlux will automatically insert it's name into the name gadget. You MUST supply a name before you can continue!

Once you have finished, press the Accept button. If no disk is present in the current drive, a requester will open asking you to insert one.

From hereon a progress window will appear showing how much of the disk has been read. If you have the image compression option selected in the

settings window  
the disk image will be compressed after the reading is  
has finished.

At anytime you may abort this operation by pressing the Abort button or by closing the progress window.

[ Write Disk Image ]

Pressing this button will let you write one of your previously stored disk images to a floppy. You must select one of the entries in the list before pressing this button. If a disk has not been inserted into the current drive, you will be asked for one.

From hereon a progress window will appear showing how much of the disk image has been save to the floppy disk.

At anytime you may abort this operation by pressing the Abort button or by closing the progress window.

[ Edit ]

Pressing this button will open the

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image attribute window  
that will let  
you modify the details of the currently selected disk image.

[ Delete ]

By pressing this button, you can get rid of the currently selected disk image. But remember, you cannot get it back!

[ Delete All ]

This is the same as the delete button, but instead of deleting just one image, all images are deleted. Be very careful with this button!

[ Info ]

By pressing this button you can open the  
information window  
. This window  
gives you various details and statistics.

[ Rescan ]

Press this button to force FloppyFlux to rescan the  
DiskImages drawer  
for images. This drawer is located in the same drawer as the ↔  
FloppyFlux  
executable. This button can come in handy when the contents of the  
"DiskImages" drawer has changed.

[ Status gadget ]

This is a small recessed box that displays some basic information, such as current operations that are being carried out by FloppyFlux.

When you click on one of the disk image entries in the main listview gadget, the comment of that particular image will be displayed here.

[ About ]

This display the current version of the program and copyright/credit information.

[ Settings ]

By pressing this button, you can open the  
settings window  
.

[ Quit ]

You can exit FloppyFlux by pressing this button.

## 1.14 The image attributes window

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The image attribute window

This window lets you edit the attributes of a disk image. To open it, you can press the Edit button or create a new disk image by pressing the Read button, both buttons are located on the main window

In the window you will see the following gadgets:

[ Name ]

From here, you can enter the name of the disk image. This name will be used as the actual disk image's file name in the disk image drawer, so you must not use any non-standard characters such as "/" or ":".

If you are just about to read a disk, FloppyFlux will automatically insert the disk's name into the name gadget. But this will only work if the disk is a DOS disk.

FloppyFlux will complain if the filename is empty or invalid.

[ Comment ]

Write a short (max. 80 characters) comment about the disk image. This comment is stored in the actual disk image's file comment.

You may leave this comment blank.

[ Accept ]

Press this button when you're happy with the information that you've entered.

If the filename is invalid, then you won't be able to continue until it's fixed, unless you press the Cancel button.

[ Cancel ]

Press this if you have changed your mind and don't want to edit the attributes anymore, anything you've modified in the attribute window will be lost.

## 1.15 The settings window

The settings window

This window can be opened by pressing the Settings button that's located on the main window.

From this window you can configure various settings for FloppyFlux. Saving these settings will result in a file called "FloppyFlux.Config" being created/updated in the same drawer as the main FloppyFlux executable.

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[Compress all incoming disk images]

Tick this check box to activate XPK compression. Every time you tick this check box, FloppyFlux attempts to open the xpkmaster.library, but only if it failed to open it at startup

XPK compresssion is used for compressing and decompressing disk images that are stored in the disk images drawer. When using it, you can select a method and a mode (see below) to suit your requirements.

To use XPK compression, you need the xpkmaster.library installed on your system. The full package can be found on the Aminet, refer to the XPK documentation for details on how to install it.

[XPK method list]

This listview gadget contains a list of available XPK methods. Use the mouse button to highlight a method entry in the list. This method will be used to compress all incoming disk images.

**WARNING:** The ELZX version 1.0 method has in bug it. Under OS 3.1 this library will produce trash when decompressing. I'd hate to see what the compression is like!

It is best that you avoid using this particular version.

[XPK compression mode]

You can selected an XPK compression mode, from 1 to 100. Normally the larger this value, the better compression the method performs, but this normally means that the compression gets slower.

[Settings status gadget]

This recessed box is used by the settings window to display information. In particular, it will display information on an XPK method you have just selected.

[Save]

Save & use the configuration, then close the window.

[Use]

Use the configuration (but don't save), then close the window.

[Cancel]

Disregard all settings changed by the user and resort to the previous settings. The settings window will also be closed.

## 1.16 The information window

The information window

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This is a small simple window that lets you view some statistics and details that are associated with FloppyFlux.

Note: If you have a lot of disk images stored, opening this window might result in a short pause. This is due to FloppyFlux searching for compressed disk images.

Currently the following details are displayed:

The total amount of disk images (including compressed images).  
The total amount of bytes used by the disk images.  
The total amount of XPK compressed disk images.  
The current version of the XPK system installed.

To exit from this window, you may press the Continue button or press the window's close gadget (upper left-hand corner).

## 1.17 The main window's menus

From the main window, you can access some pull-down menus. This [↔](#) section describes those menus.

Project

This is the main FloppyFlux menu.

Information...

This will display the Information window.

Settings...

This will display the settings window.

About FloppyFlux...

This will give you more information about FloppyFlux itself.

Hide GUI

Selecting this will allowing you to hide the GUI. See the hide section.

Quit

This menu item allows you to quit FloppyFlux.

Disk Images

This menu allows you to access some of FloppyFluxes' disk image handling features.

Import from file(s)...

Selecting this menu item will open a file requester. By using this file requester you can select one or more (my pressing the SHIFT key) files that you want to import as disk images.

This feature comes in handy when you have another program that creates 901K disk image files.

The disk images that you selected will be compressed if you have FloppyFlux configured to do this via the  
Settings window

Export to file...

This feature does the opposite of the Import feature. It will open up a file requester that will let you select a destination file to export the disk image to. If the disk image is compressed, a requester will be displayed asking if you want to decompress it before exporting.

Pack selected

This menu item will let you compress the currently selected disk image.

Unpack selected

This menu item will let you decompress the currently selected disk image.

Pack All

This menu item will let you compress all disk images. One or two requesters will be displayed asking exactly what images to compress.

Unpack All

This menu item will let you decompress all disk images.

## 1.18 Legal

Legal information

DISCLAIMER  
YOU MUST READ THIS BEFORE USING THE PROGRAM.

DISTRIBUTION  
Details on how to distribute this software.

FloppyFlux is EMAILWARE, if you use it often, please consider sending the author an e-mail.

Copyright

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Christian von Roques,  
Urban Dominik Müller &  
Bryan Ford.

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This software is emailware, which means that this archive can be freely distributed provided it's components are not altered or deleted by anyone other than the copyright holder (Andrew Bell). It also means if you use the software often you should send the author an email with feedback.

Distribution via diskette, CD-ROM or other electronic medium is allowed provided the archive is distributed in it's original state, and that the end user is not charged for this software (Although you are allowed to charge them for the medium it is supplied on).

Executable files should only be used for the purpose intended. Reassembling, reverse-engineering, translating and patching should be regarded as a breach of copyright.

If you are going to distribute this software via a magazine cover mounted medium, I recommend that you contact the author for the latest version of the software.

## 1.21 The disk image drawer

The disk image drawer

This is a special directory that is created/used by FloppyFlux. It's where the user's disk images are stored. This drawer is located in the same directory as the main FloppyFlux executable.

This directory reflects the main image listview, located on the

main window

. Each file in here is a disk image, if the user has the XPK compression option selected in the settings window, then some of these images might be compressed.

All images in this drawer should be 901120 bytes in length, apart from compressed images, instead these should decompress to exactly 901120 bytes. If you're going to copy images directly into this drawer, you must make sure that the files match this length! If not, FloppyFlux may complain!

FloppyFlux will automatically rescan this directory if any files are copied into it.

FloppyFlux also uses a simple cache system. All of the details of each entry in the disk image drawer are stored in a file called "DiskImages.cache". This file is used to speed up disk IO, the previous versions of FloppyFlux became very slow when you stored many disk images.

Sometimes the cache file can become "outdated" and will require updating. To

do this press the Rescan button, then quit and reload FloppyFlux. You should

also do this if your system crashes while running FloppyFlux. Do not reset the computer while running FloppyFlux, the information in the cache file will become outdated.

## 1.22 Hiding the FloppyFlux GUI

Hiding the FloppyFlux GUI

By selecting the

Hide GUI menu item

in the pull-down menus or by

pressing the

Hide button

on the main window you can hide the

FloppyFlux GUI.

For this feature to work correctly, you must have Workbench opened and the FloppyFlux.info must reside in the same directory as the main program file. This is because FloppyFlux uses its own icon file as an AppIcon.

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The AppIcon will appear on the Workbench desktop when the FloppyFlux GUI has been successfully iconified.

If you want to bring back FloppyFluxes' GUI, then double click this AppIcon.

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