Backdrop

by Tim Maroney

Public domain software
courtesy of Centram, Inc.
makers of the TOPS local area network
(and fiercely proud of it)

2560 Ninth Street
Berkeley CA 94710
415/549-5900

Version two point sixteen
24 March 1987

Backdrop is a small piece of entertainment software that puts one out of a collection of pictures in the background of the Macintosh screen, behind all the windows, in place of the normal grey pattern. It is meant for hard disk users, since the pictures require a lot of disk space. In order to use **Backdrop**, you must have a Mac Plus, Mac 512 Enhanced, Mac SE, or Mac II.

Backdrop is distributed as three files, called <u>Backdrop</u>, <u>Backdrop DA</u> and <u>Backdrop Information</u>. The file **Backdrop** contains software that runs automatically when the machine starts up; put it into your <u>System Folder</u>. The file <u>Backdrop DA</u> contains a desk accessory which lets you change the backdrop while you're in the middle of a program. The desk accessory is optional; if you don't want it, or don't have enough room, **Backdrop** will still work fine without it. If you do want it, however, use the standard Apple utility called the <u>Font/DA Mover</u> to install it into your <u>System</u> file. You are currently reading the file <u>Backdrop Information</u>.

When the Mac starts up, a number of things happen. First, if you have a file in **Screen Maker** format called <u>StartupScreen</u> in your <u>System Folder</u>, the Mac will fill the screen with that instead of the usual "Welcome to Macintosh" message. (On a Mac II, the <u>StartupScreen</u> must contain a 'PICT' resource, which will be used instead of the data saved by **Screen Maker**.) This <u>StartupScreen</u> display happens whether or not you have **Backdrop** installed. **Screen Maker** is a standard Apple utility that converts **MacPaint** pictures so they can be used as <u>StartupScreens</u>. It is not useful for anything else; and since **Screen Maker** format usually uses more disk space than **MacPaint** format, it's not even all that useful there, but that was how Apple decided to make you do it and there's no use whining about it now.

After the <u>StartupScreen</u>, if any, appears, the Mac starts running automatic startup software stored in the <u>System Folder</u>, things like **Tops**, **InterMail**, **InterBase**, and (you guessed it) **Backdrop**. When **Backdrop** runs, it looks at a folder in your <u>System Folder</u> called <u>Screens</u>. This folder contains the various pictures that may be used as backdrops. One picture is randomly selected from the <u>Screens</u> folder and put into the background, there to stay until you shut down the machine or use the desk accessory to change it. Then it runs a conceited little picture about its origins and lets the machine get on with things.

The pictures in your <u>Screens</u> folder may be in either **Screen Maker** or **MacPaint** format (or **FullPaint** format, which is the same as **MacPaint**). If you put other types of documents in there, strange things may happen. In the future, some other format documents will be allowed as well, particularly **MacDraw**. We recommend using **MacPaint** pictures, since they are usually smaller than **Screen Maker** pictures.

Sorry, no pictures are distributed with **Backdrop**, but if you have friends with Macs and/or belong to a Mac user group, you shouldn't have much trouble coming up with some that you like. One particularly popular class of pictures is digitized artwork, from graphic albums and the like, but you should be aware that it is a violation of copyright laws to distribute these yourself in most cases. We hereby disavow any responsibility for anyone so violating the law, and certify that we have attempted to discourage them from doing so.

The desk accessory brings up a small window with five buttons. The meaning of the **Cancel** button is obvious. The **Pick** button lets you select a new backdrop by hand, so you can even select pictures outside your <u>Screens</u> folder. The **Switch** button randomly picks a new backdrop from your <u>Screens</u> folder. The **Rotate** button goes through the backdrops in your <u>Screens</u> folder in a order fashion; to end the rotation, press a key or the mouse button.

Here is how to use the **View** button. **MacPaint** pictures are bigger than most screens, so the desk accessory lets you select a "view rectangle" for a **MacPaint** picture. The screen will be filled with the picture, a hand cursor will appear, and you will be able to move the picture around. Press any key to save the current viewing rectangle. From that point on, whenever that **MacPaint** picture is selected for the backdrop, the viewing rectangle you set will be used. If you do not set a view rectangle for a **MacPaint** picture, the uper left hand corner is used.

If you only want one screen in the background, then just put one picture into your <u>Screens</u> folder!

In the future, it will be possible for non-hard-disk users to use a pictures disk with **Backdrop** to avoid having to store pictures on a floppy disk.

This product is provided free and without conditions. However, no warranty, express or implied, associated with the product will be considered valid. Any data loss, crashes, failures, or other unfortunate phenomena will be considered solely the responsibility of the user of the software, and neither Centram nor Tim Maroney accepts responsibility for such happenings.

More technical information follows. Only a few programmers are likely to be interested in this part, and even then only so they can talk about what **Backdrop** does and what's wrong with it, thinking they're impressing everyone but actually boring them to tears. There aren't even any very funny jokes in the rest, but at this point that shouldn't surprise you.

It is neccessary to have the new (Mac Plus) ROMs to use **Backdrop**. This will probably always be the case. It is neccessary to boot from a hierarchical (HFS) volume because otherwise there can be no <u>Screens</u> folder; this will be fixed when the picture disk option is implemented.

Backdrop works by intercepting the FillRect and FillRgn traps. If the pattern argument is the same as the desktop pattern stored in low memory or the resource containing the desktop pattern, then instead of a real pattern fill operation, a CopyBits is done to fill the area with the picture. The picture bitmap is stored above BufPtr by the **Backdrop** 'INIT' resource. Therefore, there is RAM overhead in using **Backdrop**, equal to the size of the screen plus the rather small trap patches, which are also stored above BufPtr.

When the desk accessory is used to control the backdrop, the new picture is painted onto the whole screen including the menu bar and the corners. HiliteMenu(0) is called to remove menu hilighting (the Apple menu is likely to be hilighted), because the menu bar cannot be redrawn correctly if a menu is hilighted. Then two black squares at the top corners of the screen, 12 pixels by 12 pixels, are filled with black so that the top screen corners will be shown correctly. DrawMenuBar() is then called, and finally a call to the Window Manager routine PaintBehind() is given so that all the windows will be redrawn. The bottom corners of the screen won't be corrected, but who cares, it looks fine.

At no time is weird twiddling of the Window Manager done, nor is there any drawing into the Window Manager port (except at system request) or use of GrayRgn. This is to stay compatible with Apple's possible forthcoming Window Manager changes. I hope.

View rectangles are stored in the otherwise unused resource forks of **MacPaint** documents. They are always a rectangle, eight bytes. The type is 'VIEW' and the name is "**HxV**", where **H** is the screen width and **V** is the screen height. A view rectangle only applies to one screen size, though there may be view rectangles for multiple screen sizes in a **MacPaint** document.

Feel free to change any strings or dialogs or pictures you may find in the **Backdrop** files for your own use, within reason. Please do **not** distribute modified versions, however! Naturally, you and you alone are responsible for any crashes or failures, etc., incurred by this action, but such are not likely unless you do something really silly. You can even remove the picture it shows at startup, though I'll be terribly, terribly hurt if I ever see that you've done this.