PixelFlipper

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## **Using PixelFlipper:**

**PixelFlipper** INIT/cdev is a screen depth changer. It allows the user to change the depth of ANY monitor connected to their Mac without having to pull up the Monitors cdev. To configure **PixelFlipper** just drag the file into your 1) system folder, 2) pull up the control panel, 3) select it, 4) configure, and 5) restart. To activate **PixelFlipper** hold down the modifiers you specified in the cdev and hold down the **mouse button**. You will see a menu of depths available for this monitor only. **PixelFlipper** will only allow you to set the depths that are actually available for that specific video card and monitor. You can then change between either the depths and color mode.

#### **System Requirements:**

The **PixelFlipper** INIT/cdev works on any Macintosh system which has <u>Color</u> QuickDraw and is running System 6.0.5 or greater.. This includes the Macintosh II, IIx, IIcx, IIci, IIfx, and SE/30.

Control Panel		
ñ	↔	PixelFlipper
Mouse		by Chris Sanchez
문문		411 Laurel, Suite 2280 Des Moines, IA. 50314
Network		Command Option
		🗌 Sintt 🖾 Control 🛛 🗌 Caps Lock
PixelF1ipper		🛛 Changes are permanent
, Sound		⊠ Show Icon at start-up INIT Status: ● Active ○ Inactive
Sound		

#### Configuring PixelFlipper:

The first set it check boxes in the dialog above are the modifiers to be held down in conjunction with **mouse button** to activate **PixelFlipper**. You must have at least one of these selected to use

**PixelFlipper**. You can, if you want, have all the modifiers selected; although, this would require nimble fingers.

The next item, "**Changes are permanent**", allows you the option to make these depth and mode changes permanent. Next time you restart your Mac the changes will be remembered. By default this is off. **Helpful Hint**: Keep this option off and then after you popup **PixelFlipper** press the "P" key, this will make the next switch permanent. This only keeps the change for this monitor.

The next 2 items, "**Show Icon at start-up**" and "**Init Status**", disables/enables the displaying of the icon at boot time or the INIT itself.

The last item tells you a little information about the current monitor that the control panel is being displayed in. It gives the number of bits and the mode of the current monitor is in. It also gives you the type of release and the version number for this release of **PixelFlipper**. When reporting bugs, please include this number. If the INIT is not loaded, then this box will indicate that it wasn't loaded. You can still configure **PixelFlipper** and the changes will take effect next time you restart your Mac.

The final item, "Undo", will undo any changes you made to PixelFlipper.

## Loading:

At boot time you will see either 1 of 2 icons.



indicates that **PixelFlipper** loaded properly at boot time.

The second:

may mean one of a few reasons why **PixelFlipper** didn't load at boot time.

- 1) The user held down the 'N' key at start-up.
- 2) You don't have Color QD, or your Mac isn't running System Software 6.0.5 or later.
- 3) Some vital resources are missing
- 4) PixelFlipper wasn't able to create the preferences file needed to run.

Pressing "N" on start-up will cause **PixelFlipper** to bypass loading.

# **Programming Info:**

**PixelFlipper** cdev can communicate with it's INIT so you don't keep having to restart every time you change the preferences. The method used is to keep a nonrelocatable block in the system heap with a unique header and a pointer to the INIT's global data, or any other type of data you want hanging around. The actual routine is from Inside QuicKeys<sup>™</sup> 1.0 by CE Software. All rights reserved. Note: I'm sure the described method is not approved by Apple, but what the heck. Live fast, die hard. Anyway, I understand there will be this provision in System 7.0. via Gestalt. Anyone know???

Most programmers create preference files for their programs, but end up putting the prefs in the system folder. Can you say cluttered? **PixelFlipper** searches for a "Preferences" folder and returns a directory ID so you can place the prefs file in that folder. Most programmers should put prefs files into a prefs folder until Apple provides us with a designated place to put these type of program files.

Programmers: This is my first project in 'C' programming, and it is pretty much a hack. 'C' programmers are encouraged to "pick apart" the code for errors in logic and efficiency and report them to me so I can 1) learn the evil errors of my ways, and 2) fix them in future versions. This is not the best way to write an INIT because it is a tail patch. Apple says this is a no-no. Like I said it is a hack. If anyone can provide adequate documentation on how to patch traps in Think C 4.0, please let me know, I'll write it properly.

#### Acknowledgements:

Steve Baumeister, Ed Ong and Jon Thelin for risking sanity and hard drive to test **PixelFlipper**. Thanks also to Paul Mercer for providing the ShowINIT code that displays **PixelFlipper's** icon at boot time. QuicKeys<sup>™</sup> is a trademark of CE Software. All rights reserved.

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