

## Adrenaline, Macintosh & G5 Cheat Sheet: (as of July 25th, 2006)

Below are some suggestions to improve speed and stability of your system as well as some general links & notes on the Editor with the platform. This currently applies to PowerMac G5 models only. Universal Binaries for Mac Intel will be supported in a future release. While this isn't an official document, it's meant to help people struggling with Mac's and Adrenaline, and trying to get their performance better. Please send any comments or corrections to: [keith\\_gerrard@avid.com](mailto:keith_gerrard@avid.com)

Supported Operating Systems & QuickTimes:

<u>Adrenaline version:</u>	<u>Mac OS</u>	<u>QuickTime®</u>
v1.8 to 1.8.4:	10.4.2 - 10.4.5	7.0 to 7.0.3
v.1.8.5:	10.4.6	7.0 to 7.0.4
v 2.5.2:	10.4.7	7.1.1 & 7.1.2

### Quicktime Links:

- QT 7.1 STANDALONE installer; Mac & Windows:  
<http://www.apple.com/quicktime/download/standalone.html>
- **QT 7.1.x UNINSTALLER:**  
<http://www.apple.com/support/downloads/quicktime701reinstaller.html>
- QT 7.0.4(Mac): <http://www.apple.com/support/downloads/quicktime704.html>
- QT 7.0.4(Win): <http://appldnld.m7z.net/qtinstall.info.apple.com/snape/us/win/QuickTimeInstaller.exe>
- QT 7.0.3(Mac): <http://www.apple.com/support/downloads/quicktime703.html>
- QT 7.0.3 (Win): <http://appldnld.m7z.net/qtinstall.info.apple.com/tramper/us/win/QuickTimeInstaller.exe>
- QT 6.5.2 (Windows): <http://www.apple.com/support/downloads/quicktime652forwindows.html>
- QT 6.5.2 (Downgrading from 7.0.x):  
<http://www.apple.com/support/downloads/quicktime652reinstallerforquicktime701.html>
- QT 6.5.2(Mac): <http://www.apple.com/support/downloads/quicktime652formac.html>

### **VERY IMPORTANT NOTE ABOUT UPGRADING TO A DUAL /QUAD CORE G5:**

<http://www.avid.com/onlinesupport/supportcontent.asp?productID=92&contentID=8921&typeID=>

### G5 Slot configurations:

The location of the SCSI, FireWire or Fibre Channel cards can greatly affect performance and bus speed. (**Dual Processor 2.0 thru 2.7GHz, including Dual/Quad Core G5s 2.0 thru 2.5GHz**)

\*\*\*\* NOTE: support for the Single or Dual Processor 1.8 GHz was for Xpress Pro ONLY \*\*\*\*

### **Dual Processor G5 ( 2.0 GHz thru 2.7GHz )**

Came with Three open full-length PCI-X slots: one 133MHz, 64-bit slot and two 100MHz, 64-bit slots

#### ATTO SCSI cards:

(PCI-X) - **UL4D** ( firmware 1.5.0 / Driver 3.60 )  
(PCI) - **UL3D** ( firmware 1.6.6f0 / Driver 3.21 )

#### Would be located in:

-- Slot 4 of the G5  
-- Slot 3 of the G5

#### FireWire card goes in:

-- Slot 2\*\*  
-- Slot 4\*\*

#### ATTO Fibre channel cards:

(PCI-X) - **Celerity FC41XS**(firm 1.1.0 /Driver 2.41 )  
(PCI) - **ATTO 3300** (firmware v2.4f0/Driver 2.40)

-- Slot 3 of the G5  
-- Slot 3 of the G5

-- Slot 4\*\*  
-- Slot 4\*\*

**NOTE:**

'The ATTO 3300 and 3305 Fibre Channel boards are qualified for Avid Unity MediaNetwork. These boards are designed for use in 100 MHz PCI-X bus slots. If they are installed in a 133 MHz PCI-X slot, data corruption and data loss will result. Be sure to install the ATTO 3300 or 3305 Fibre Channel board in a PCI-X slot that runs at 100 MHz or less. For more information, see 'Avid Unity ATTO Fibre Channel Slot Requirements'.

**Dual/Quad Core G5 (Dual 2.0, 2.3 GHz; Quad 2.5GHz)**

Came with Three open PCI Express expansion slots: two four-lane slots and one eight-lane slot

<u>If using:</u>	<u>Would be located in:</u>	<u>FireWire card goes in:</u>
<b>ATTO SCSI cards:</b> (PCI-E) - <b>UL5D</b> ( firmware 1.5.0/ Driver 3.60 )	-- Slot 4 of the G5	-- Slot 2***
<b>ATTO Fibre channel cards:</b> (PCI-E) - <b>Celerity FC42ES</b> (firm / Driver 2.41) (PCI-E) - <b>Celerity FC41ES</b> (firm / Driver 2.41)	-- Slot 3 of the G5 -- Slot 3 of the G5	-- Slot 2 *** -- Slot 2 ***

If running Fibre Channel card ONLY, then the slot configuration would remain the same. **(Slot 3 of the G5)**

**FireWire card support:**

\*\* Supported **PCI/PCI-X** FireWire cards used in conjunction with SCSI/Fibre card:

- 1) ADS PYRO PCI 64, part #API-300
- 2) SIIG 1394 3-Port PCI i/e, part #NN-440012

\*\*\* Supported **PCI-E** FireWire cards used in conjunction with SCSI/Fibre card:

- 1) ADS Pyro PCI 64 (Part Number API-316)

**NOTE about Firmware and Drivers for ATTO SCSI/Fibre cards:**

You can download the Driver and configuration utility for the ATTO Celerity FC42ES and FC41ES cards from either Avid's KB: <http://www.avid.com/onlineSupport/supportcontent.asp?contentID=9228>

**OR**

From ATTO Technology, who has an archive of all their drivers & flash files on their website, however they require customers to register for the site to gain access to it: <http://attotech.com/>

- once registered, under the Applications/Utilities/Firmware area, 'ExpressPCI Configuration Tool' is what is needed in order to up

**Version 2.8** was the supported configuration tool for **OS 10.3**.

**Version 3.0.5** is supported for OS **10.4** & higher.

- you would also download the appropriate 'flash' file for your storage card, for use in the Config Tool.
- Their utilities can be found: ( <http://attotech.com/software/app1.html> )

Names of required flash files:

All the flash files come in one package per type of card labeled either:

**Flash Files for ExpressPCI Host Adapters** (File Size 1.8 MB) for UL5D, UL4D, UL3D.

**Flash Files for Celerity FC Host Adapters** (File Size 432K) for FC42ES, FC41ES, FC41XS

\*\*\* Instructions for installing & using the Configuration Tool can also be found on Page 5, of the Unity 4.1.1 ReadMe Addendum, found here: [http://www.avid.com/content/9149/0130-07499-01A\\_KB.pdf](http://www.avid.com/content/9149/0130-07499-01A_KB.pdf)

### **Other Info & links:**

Rainbow dongle issues on OS 10.4.7: <http://www.avid.com/onlineSupport/supportcontent.asp?contentID=9781>

MCA specs: <http://www.avid.com/products/media-composer/adrenaline/specs.asp>

Avid RAM Specs: [www.avid.com/onlinesupport/supportcontent.asp?productID=0&contentID=8966&typeID=2](http://www.avid.com/onlinesupport/supportcontent.asp?productID=0&contentID=8966&typeID=2)

Avid CPR site: <http://avid.com/onlinesupport/downloadcpr.asp>

Avid Download Center: <http://avid.com/support/downloadcenter/index.asp>

G5 Dual Processor Info: [http://support.apple.com/specs/powermac/Power\\_Mac\\_G5\\_June\\_2004.html](http://support.apple.com/specs/powermac/Power_Mac_G5_June_2004.html)

G5 Dual Core Info: [http://support.apple.com/specs/powermac/Power\\_Mac\\_G5\\_Late\\_2005.html](http://support.apple.com/specs/powermac/Power_Mac_G5_Late_2005.html)

Installing RAM in a G5: <http://manuals.info.apple.com/en/Memory.pdf>

A handy reference for info on **EVERY** Mac ever made: <http://www.everymac.com/systems/>

Apple's page of Manuals: <http://www.apple.com/support/manuals/powermac/>

Apple's 101 area: <http://www.apple.com/support/mac101/>

(for learning the basics, as well as your way around the Mac)

### **RAM:**

For more information on RAM specifications or configurations, please visit:

[www.avid.com/onlinesupport/supportcontent.asp?productID=0&contentID=8966&typeID=2](http://www.avid.com/onlinesupport/supportcontent.asp?productID=0&contentID=8966&typeID=2)

### **General Speed suggestion:**

- If running into performance issues with G5's, you can try bumping the 'Pre-Filled Frames' setting down to '0' if it was not already. That setting is found under the 'Video Display' settings.

#### **Prefilling the Video Display Buffer**

In the Video Display Settings dialog box, you can specify the number of seconds that the Avid editing application delays before it begins playback. During this time, the application processes frames in advance and stores them in the video display buffer. When playback begins, the application starts to display the preprocessed frames while it continues to process new ones. The application will continue to play back the sequence successfully in real time unless it exhausts its supply of preprocessed frames. By accepting a delay at the beginning of playback, you increase the likelihood that the application will play the material successfully. The maximum delay you can specify is 10 seconds.

*(More Info: Page 173 of the Effect Guide for Media Composer Adrenaline)*


- If you notice missing frames or choppy video during real-time playback, switch to Draft Quality Mode.


- To select video quality for playback click the Video Quality Menu button at the bottom of the Timeline and select a video quality.

*(More Info: Page 175 of the Effect Guide for Media Composer Adrenaline)*

### **Controlling Video Quality for Playback**

The Video Quality Menu button in the Timeline bottom toolbar allows you to switch display resolution between Full Quality and Draft Quality. Display resolution during playback has two states:

- **Full Quality** (green - ) uses full-image 1:1 resolution, but handles limited effect complexity before the Avid application begins to have difficulties with real-time playback.

- **Draft Quality** (half green, half yellow - ) uses 1/4 resolution and reduces the quality of the image so you can view greater effect complexity in real time. Once you are satisfied with your sequence using Draft Quality, render the sequence and switch to Full Quality to see the final result.

### **Troubleshooting Suggestions:**

**Resetting P-Ram** – reset the p-ram by holding Apple+Option+P+R (apples says 2 or 3, I aim for 7 restarts)

1. Shut down the computer.
2. Locate the following keys on the keyboard: Command, Option, P, and R. You will need to hold these keys down simultaneously in step 4.
3. Turn on the computer.
4. Press and hold the Command-Option-P-R keys after the first Chime. You must press this key combination before the gray screen appears.
5. Hold the keys down until the computer restarts and you hear the startup sound for the 7<sup>th</sup> time.
6. Release the keys & let it reboot.
7. Your computer's PRAM and the NVRAM are reset to the default values. The clock settings may be reset to a default date on some models.

More info on pram and nvram: ( <http://docs.info.apple.com/article.html?artnum=2238> )

**Other than P-RAM**, you can also try resetting the Open Firmware settings.

Restart computer, hold down Apple+Option+O+F after the first Chime (F+O for Open Firmware)

At the Open Firmware prompt, type: **reset-nvram**. Press Return.

Then type: '**reset-all**'. Press Return and Machine will reboot.

**Disk permissions** – These can be repaired if the system is acting up, or if there have been a lot of applications uninstalled or reinstalled recently. Once you open the Disk Utility (drive >Applications>Utilities>Disk Utility), you select your internal drive and the 'Repair Disk Permission' button becomes active. Click it and let it run. May take up to 10 minutes. Also, Apple recommends that you repair disk permissions BEFORE and AFTER any system or OS update.

( <http://docs.info.apple.com/article.html?artnum=152059> )

**Run 'fsck' on your internal drive** – boot into single user mode by restarting, and holding down: Apple+S. Once booted in, you should have a black screen with white text, type the following:

**/sbin/fsck -y**

- fsck goes through and checks file system consistency and interactively repairs the file system. When finished, type 'reboot' and it will reboot. \*\* You MAY have to add **-fy** instead of **-y** at the end of command.

( <http://docs.info.apple.com/article.html?artnum=106388> )

System Preferences & Settings to check:

**Appearance** – Disable 'Smooth Scrolling' (may not make much of a difference, but could help)

**Dock** – you can turn 'Magnification' off if you want to.

**Security** – *File vault* – make sure it's off. Select 'Disable Automatic Log-in'

**Energy Saver** – everything should be set to 'Never'

also, under 'Options', set processor performance to 'Highest' NOT 'Automatic'

( <http://docs.info.apple.com/article.html?artnum=86612> )

**Display** - matching resolution and refresh rates) also check that the resolution is native for flat panel(s)

**Screensaver** – none. Also disable any 'Hot Corners' though not required.

**Accounts** – Fast user switching turned off.

**Users** – make sure that they have only admin users.

**Software Update** (and *Automatic Update* for QuickTime) – **Both** should be turned off.

**Sharing** – All options could be turned off. Check for long Computer names in here.

**Speech** – Could also be disabled.

**Universal Access** – Both options set to 'Off.' Also, since OS X added the ability to create shortcut keys for almost any action or function, make sure that the Universal Access settings are not set to use any used keyboard shortcuts.

**Login Items** (located under 'Accounts') – you should keep this list as clear as you can.

**Date and Time** – Make sure that it's not automatically setting itself.

**Dashboard/Expose** – for safety sake, set all options to the '-' listed at the bottom.

Also, if you want to disable Dashboard entirely:

Launch Terminal and then enter the following commands.

To turn Dashboard off:

**defaults write com.apple.dashboard mcx-disabled -boolean YES**

To turn Dashboard on:

**defaults write com.apple.dashboard mcx-disabled -boolean NO**

You have to restart the Dock after making either change for it to take effect:

**killall Dock**

with thanks to: ( <http://www.macintoshhints.com/article.php?story=20050723123302403&lsrc=osxh> )

**Spotlight** - After installing or upgrading to OS X 10.4, Spotlight might be automatically enabled on your media drives. For the best system performance, Avid recommends disabling Spotlight for your media drives. (**NOTE:** Avid Unity drive, by default, do not show up under Spotlight's searching tool. Use for LOCAL drives only.)

To disable Spotlight:

a. Go to System Preferences > Spotlight.

b. Click Privacy.

c. Select a disk on the desktop, click the + button to add to the list. (or drag & drop from the desktop)

d. Continue to do this for every disk. You will need to add new disks as you add them\*\*\*\*

( <http://docs.info.apple.com/article.html?artnum=301533> )

**During the boot up**, all the extensions that are marked as essential are put into cache files; which is used to speed startup. Throw out following 2 (two) files and they should rebuild on restart. Those are found in: */System/Library/Extensions.kextcache* and *Extensions.kextcache*)

(More info on those files and extensions within OS X: [http://www.osxfaq.com/Tutorials/extensions\\_hell/index.ws](http://www.osxfaq.com/Tutorials/extensions_hell/index.ws) )

**In some instances**, physically pulling the Ethernet cable from the computer has also helped. This has obvious set backs if you need to be on a house network.

**CHUD utility** – for disabling 2<sup>nd</sup> processor. While it's not required for Adrenaline, it's a test that can be done to see if there's an underlying performance problem.

To download: ( <http://developer.apple.com/tools/download/> )

////////////////////////////////////

### **Unity, Adrenaline, G5's and you.**

Supported Unity versions / Mac OS:

Unity 4.1.2 – For use on OS 10.4.6 & 10.4.7 (mostly addressed Kernal Panics)

Unity 4.1.1 – For use on OS 10.2 through 10.4.5

Unity 3.5.5 – for use on OS 9 (Meridien Based) through Adrenaline 1.5 (possibly higher)

**A note about '.DS Store'** files on OS X.

When OS X touches a shared, networked drive, it creates a file named '.DS\_Store'

Sometimes these can go corrupt and cause problems. Info on them, how to delete them and how to prevent your Mac from writing these files:

<http://www.avid.com/onlinesupport/supportcontent.asp?productID=43&contentID=9055&browse=>