

# MorphOS Misadventures

Much has gone on in the last month or so, good and bad, but I'll limit my range somewhat, concentrating mostly on MorphOS this time around. A few months after the release of version 3.2 of the OS, the team announced the number of paid registrations broke 2000 recently. The support for various PPC-based Mac systems had paid off (so to speak), as the Mac Mini makes up the largest percentage of registered machines, at over a third, followed by the venerable Pegasos II and the Powerbook laptops. In honor of this, I shall come forward with the next installment of:

## THE MARVELOUS MISADVENTURES OF MY MORPHOS MAC

Previously on the Marvelous Misadventures of My MorphOS Mac:

Last time, after shopping around Ebay for the purpose of getting a Powermac G5 to run MorphOS, I lost one auction, but won a second for a 2.0 Ghz system, only to discover upon its arrival that it was not the type supported by MorphOS 3.2. A second round of auction trolling netted me a 2.3 Ghz system for a slightly lower price which did boot from the MorphOS CD, leaving me successful, but having paid for one more heavy metal battleship of a Mac than I really needed.

...And now the conclusion:

Finally having a G5 system I can use, I needed to tailor it to my needs. The first step was getting a new hard drive, as I wished to start fresh with a new and larger drive than the machines arrived with. I didn't need much (compared to the average Windows user), so I figured a 500 gigabyte drive would be more than sufficient. Truth be told, it's getting difficult to find new drives smaller than that which aren't intended for laptops, or using SSD technology instead of magnetic discs. I also discovered that at most places a 1 terabyte drive cost no more than ten bucks over a drive half its size. After shopping the local stores, I found a better deal on-line, getting the 1 TB drive with free shipping for less than the 500 GB cost locally. I had to wait a few days for it to arrive, but I've already waited as much as I have, so no big deal.

After the drive came in, I set to installing, and distributing the remaining resources of the two Macs to where they would do the most good. As I started breaking down the Mac system I would be using, I disconnected all the cables except the power, as that allows you to discharge static charges before working. Unfortunately, I forgot to unplug that after doing so. The drive went in without issue. It came with no screws or mounting hardware, so I just used the stuff from the drive I removed. I swapped the RAM sticks around between the systems — Amiga compatibility issues currently limit

MorphOS to support only 1 GB of memory on G5 systems — so I plugged in two, giving potential room to grow, and leaving a healthy 4GB (and then some) for the other Mac. After that, I was checking/dusting the video card, and making sure the open expansion slots had covers. It was during this process that I dropped a screw, and like an idiot I went after it with my screwdriver, which shorted across a couple things and sparked, leaving a tiny scorch mark on the motherboard. After disconnecting the power like I should have done much earlier, I figured I had at that moment ruined the system I had spent the last several weeks hunting and paying for. I went to retrieve the screw, which took way more frustration and disassembly than I wanted, but I knew an unattended bit of metal in the works is about as dangerous as a moron with a screwdriver, so it had to come out.

I finally got the system back together enough for testing, and my worst fears were realized — it refused to boot — not with the CD, not with the original hard drive, not at all. I knew then that, in an instant of carelessness, I had set myself back once more — first buying the wrong machine, then frying the right one. I ran scenarios in my head: Do I try to buy a THIRD machine, do I just buy a new motherboard (or "logic board" as Apple likes to call them), do I see if someone can repair the damage, or do I accept the increasingly likely possibility that some higher power has decided

that I should never have a G5 MorphOS machine? After taking a day off to allow my swirling thoughts to calm down, I start poking around in the case again to see what can be salvaged, and make a new discovery — I had not plugged the RAM into their sockets anywhere near as solidly as I thought I did. I didn't expect much, but I tried re-seating the modules properly, and tried to turn on the system once more. This time the familiar Apple chime noise told me the machine was not completely dead, and I got it running, first under Mac OS, then Morph. I put the system back into my intended specification (being a great deal more careful this time) and set to installing MorphOS.

The installation of MorphOS was reasonably painless, at least compared to what I'd gone through up to this point. I chose the default installation, which on a Mac-based system gives you three hard drive partitions, a "boot" partition in the Mac-native HFS format, which holds the boot file the system needs to get MorphOS running, a "system" partition where most of the OS lives, and a large "work" partition, which is mostly blank for the user to use as they wish. The shortcoming for me is the SFS (Smart File System) partitions are limited to 128 gigabytes in size, so with one of those and two much smaller system partitions, I was left with a vast expanse of unused space on the 1 Terabyte drive. I fired up the Hard Drive Toolbox program on my new MorphOS system and set to carving off some chunks, but I was unable. I didn't know if it was a limitation of the system, the file system, or what, but whenever I tried to set up something, it would disappear when I hit the button to save the configuration, forcing me to start over. After some experimentation, I found it wasn't (necessarily) me that was wrong, but the program. The save BUTTON didn't save the setup, but choosing save from a menu did. Presumably this is some kind of bug, or the interface authors don't have the same eyes I do. Once I sorted this out I hacked the drive into 128-gigabyte SFS chunks, for better or worse. So now I have roughly 10 drive icons littering the desktop, 12 counting the RAM disk and the "My MorphOS" overview directory. I will eventually find a purpose for them all, and give them each their own icon and name. (Early candidates include "Gadget," "Vixen," and "Baysplotions.") I originally intended to wait a while before paying to register this system, letting it stay in the half-hour-limit demo mode until I was reasonably confident it would meet my needs and supplant my Pegasos. As this adventure has showed me, plans rarely go as planned, but this time it was positive. First, the G5 MorphOS has behaved quite well, despite how many times I tried to kill it early on, and second, I suddenly got an influx of funds to my Pay Pal account (owed money for past work I had all but

forgotten about), which made a convenient excuse to pony up for a new registration. I wasn't in time to be part of the previously mentioned 2000, though my Pegasos and Mac Powerbook are in there somewhere. The next step will be copying files from the Pegasos to the G5, to facilitate the Pegasos' eventual replacement as primary work machine. I'll also be taking that first Mac I couldn't use with Morph, and using it as a beefy replacement for my aging Mac Mini (but I probably won't be documenting those exploits around here.) So in conclusion, I say good luck to all of you in your computer-related endeavors, and I hope they are far less stressful than mine (but no less successful).

...by Eric W. Schwartz  
from the AmiTech Gazette, September 2013

## Benchmarking

Now that I have a new high-point machine in the Powermac G5 running MorphOS, I thought I would run a handful of tests comparing speed and the time it takes to do the same Amiga software task between systems. This is by no means a clinical scientific investigation, as there are several variables that were not weeded out. It's just a guy with a stopwatch app and some curiosity.

The Players:

- First off is the veteran, the Amiga 4000T, with a 50 Mhz 68060 CPU, running Amiga OS 3.9.
- Next is the Pegasos II, with 1 Ghz PPC G4, running MorphOS 3.2
- Next is the Mac Powerbook, with 1.66 Ghz G4, also running Morph 3.2
- Finally is the new kid on the block, the Powermac G5 2.3 Ghz, running Morph 3.2

First test was the one that means the least unless you run Windows — boot time (defined here as the time from when the power switch is hit to when the desktop is fully up).

- |                    |               |
|--------------------|---------------|
| • 1st: Powerbook   | 26.75 seconds |
| • 2nd: Powermac G5 | 38.4 seconds  |
| • 3rd: Amiga 4000T | 41.5 seconds  |
| • 4th: Pegasos     | 43 seconds    |

Apparently the G5 has more hardware checks on boot. The Pegasos' time was inflated, as I have a wait delay on

boot that I neglected to skip, which might have reduced the time up to ten more seconds, but the Amiga can't lose them all in this competition.

Test #2: Photogenics, maximum gaussian blur operation on 2560x1920x24 image

- 1st: Powermac G5 22.9 sec.
- 2nd: Powerbook 29.7 sec.
- 3rd: Pegasos 46.2 sec.
- 4th: Amiga 20 min. 7 sec.

Here the CPU power becomes most apparent, though the G5 is not quite the runaway leader as I might have expected.

Test #3: ImageFX, Oil Paint effect on 1280x 1280 image, brush size 5

- 1st: Powerbook 21.5 sec.
- 2nd: Powermac G5 22.6 sec.
- 3rd: Pegasos 37.9 sec.
- 4th: Amiga 3 min, 34.5 sec.

Stunning upset as the G4 Powerbook beats the G5. I ran it twice to make sure I didn't mess up on the stopwatch. I may have also make a settings mistake on the Amiga, but that only helped its time.

Test #4: Lightwave 3D 5, 2010 Xmas card render, 1280x960, full ray tracing

- 1st: Powerbook — failed, ran for over an hour, power plug knocked loose, battery expended.
- 2nd: Amiga — canceled because I didn't want to wait around.
- 3rd: Pegasos — canceled because I didn't want to wait for it.
- 4th: Powermac G5 — failed, did not finish before MorphOS demo time limit was reached.

Well, that one was kind of a cluster-fudge.

Test #4b: Lightwave 3D 5, 2010 Xmas card render, 640x480, ray traced shadows only

- 1st: Powermac G5 25 min, 40 sec.
- 2nd: Powerbook, 27 min, 21 sec.
- 3rd: Pegasos 44 min, 59 sec.
- 4th: Amiga 8 hours, 35 min, 52 sec.

Even with the reduced specs, the G5 barely squeaked through within its demo time. This was a much more demanding render than I first imagined.

Test #5: Lightwave 3D 5, Metrobot render, 1280x960, full ray tracing

- 1st: Powermac G5 3 min, 50 sec.
- 2nd: Powerbook 4 min, 10 sec.
- 3rd: Pegasos 6 min, 48 sec.
- 4th: Amiga 1 hour, 12 min, 9 sec.

This was a much easier render overall (less complex surfaces and transparency). Still, it shows that in most things where CPU speed is a primary factor, the G5 is usually the winner, with the G4-based Powerbook not far behind. Every bit of extra speed is useful for intensive tasks though, and the Macs outpace the Pegasos II, and not surprisingly, the Amiga, though not by factors that mere clock speeds might have you believe.

...by Eric W. Schwartz  
from the AmiTech Gazette, September 2013

## October Calendar

October 9 — Amiga-By-The-Loop Chapter  
7:30 PM — South Grand Prairie Library  
760 Bardin Road, Grand Prairie

October 9 — Board of Director's Meeting  
Approximately 9:15 PM — Location TBD

October 28 — Newsletter Deadline — 8:00 AM

MCCC 4418 Sharpsburg Drive Grand Prairie, Texas 75052  
<http://www.amigamccc.org>