

The following letter was sent to LaCie's technical service department. They had never heard of such problems.

This week, December 3 or 4, 1990, I received the MacWeek-like PC WEEK magazine which contained a front page news bit on a severe but very uncommon memory management bug in the ROMs of some Mac II computers. I believe that I am suffering from this bug - perhaps more severely than any of the other documented cases reported by PC WEEK. Please investigate this serious ROM bug and report as soon as possible. I feel that my entire livelihood and reputation are at stake.

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Help!

I am suffering from a very painful Macintosh problem, and have exhausted my resources in isolating it and getting it corrected. The end result is that using a Macintosh II or a Macintosh IIcx seems like a speedy joy compared to my full-blown Macintosh IIci with Daystar Cache Board!

PROBLEM: Poor (slow) performance and erratic behavior. Slow performance characterized by increasingly time consuming basic operations (no "snap" in the computer's performance anymore) plus measurable, radical speed decreases recently.

SPEED SLOWDOWN: A standard FAX which I prepare weekly in Microsoft Word and then distribute using Abaton's Interfax software used to take 3 minutes to bit map each week. Now an identical document takes almost 30 minutes - unacceptable. I have to quit using the FAX modem at this point.

ERRATIC SYSTEM PERFORMANCE: My computer is constantly "confused" - manifested by a frequent dialog requesting that I "Please insert the Disk..." and it names my internal hard drive/boot disk.

Another frequent and recently manifested erratic system behavior is an attempt by the system to "Copy" things to the trash, not erase them. In other words, the system seems to consider the trash can to be a mounted media volume of some type. When I throw something away, I get the full copying works - complete with a horizontal completion thermometer during the copy! In the most aberrant version of this behavior, items which have been "copied" to the trash are duplicated inside the trash whenever any attempt is made to reposition them inside the trash window by dragging.

I experience far too many system hangs - many times even when the computer is sitting still, such as during lunch, it will be hung when I return.

CORRECTIONS ATTEMPTED

I have replaced my system, using original never-unlocked disks from Apple Computer.

I tried reverting to System 6.0.4 (I was using System 6.0.5 when these problems surfaced).

I have turned off all inits, and various combinations of inits (more on my specific system configuration later.) I have searched for and verified that only one System file and Finder exist on my boot hard drive.

I have tested all RAM memory successfully using ProVUE Development's RAM Test Utility.

I have increased heap size as recommended using CE Software's heap fixer.

I have tested all SCSI hard drives using LaCie's SilverLining, and confirmed that all drives are formatted at a 1:1 interleave.

I have reformatted my internal boot volume and tested it extensively for media errors (there were none).

I have disconnected my external SCSI chain, running the Mac with internal drive solo.

I have confirmed correct <well, sort of correct, drive termination>. See my system configuration for more info.

I have confirmed that no SCSI address conflicts exist.

I have religiously updated my copy of SAM 2.0 with every virus update notice mailed by Symantec. I also called Symantec's Virus hotline, made notes and re-entered all new virus updates given there as of November 15, 1990. My system tests clean.

I replaced the original Apple drivers on my internal hard drive with LaCie's SilverLining drivers.

I have increased the Finder's memory allocation under MultiFinder to 512K. (Although many of these problems have occurred when running the Finder alone without MultiFinder.

I have optimized and turbocharged my startup volume using the Norton Utilities Speed Disk program.

OTHER IDIOSYNCRASIES

LaCie 45MB Removable Quirks

My LaCie Syquest 45MB removable drive recently started to behave quirky when mounting volumes. It began with a specific disk which had just returned from the service bureau. This particular disk would not complete the SAM 2.0 scan without consistently locking up the Macintosh. I tried other Syquest Cartridges, and they scanned successfully. This problem became more acute to the point that the behavior accelerated on the cartridge in question - the first few attempts always hung the Macintosh at the same point during a very advanced stage in the scan. I went ahead and mounted the cartridge by cancelling out of the SAM scan. Later, the SAM scan would hang the Macintosh very early on in the cartridge scan - almost a challenge to get to the keyboard and cancel scanning before a hardware reboot became necessary. Along about this time, other Syquest cartridges also began to exhibit system hangs during SAM scans. Another notable failure - using LaCie's Silverlining (v 5.25) to perform diagnostic tests read/write produces a consistent system hang which I did not notice previously. Incredibly - for no apparent reason - my Syquest cartridges are currently mounting in a fairly normal fashion even with the full SAM scan.

Macintosh Hardware Failure

About a week ago, the Mac locked up and when I tried to reboot, I got the "hardware failure" chime - no drive spin, no monitor image, no nothing except the hardware failure chime. I made attempts to get the Mac restarted by turning the rear power switch on and off, but no results. I finally disconnected the SCSI chain, opened the Mac, vacuumed out the dust, and wiggled the monitor cards and also the Daystar Cache board, and then the computer restarted and has been doing so ever since.

Excessive SCSI Polling

I find that this Mac curiously plays "round robin" a lot with the attached SCSI devices. During basic operations such as a simple copy operation from one disk to another, the drives will be tediously, repeatedly, and rhythmically accessed in a "circular" fashion (internal, external, syquest, internal, external syquest...) I associate this behavior with the finder acting bizarre (like requesting the internal hard drive to be reinserted, and treating the trash as another mounted media volume). I seem to detect some sort of SCSI bus reinitialization at times as well, with the flatbed scanner lighting up and moving into position, just as it does when the computer is booted or restarted.

SYSTEM CONFIGURATION

HARDWARE

Macintosh IIci

8MB 80ns RAM

Daystar Digital Cache Board IIci

40MB Apple Internal Hard Disk (Sony mechanism)

RasterOps 364 Color Board (generally left in 24-bit "millions" of colors mode - I just don't see much speed improvement because the color monitor is configured as my secondary monitor and is used relatively little except when color applications are required.)

Apple RGB Monitor

Personal Computer Peripheral Corporation (PCPC) Shadowgraph 19" Gray-Scale Monitor (Ikegami monitor w/PCPC 8 bit board).

This is my primary monitor (has the menu bar) and is left in 256-level grayscale at all times.

LaCie 640MB Hard Drive (Hewlett-Packard mechanism)
3 partitions using LaCie's SilverLining (80/100/250??)

LaCie 45MB Removable Hard Disk (Syquest)

This drive - the first on my external SCSI bus - remains internally terminated - against Apple's recommended procedure of terminating only the last device on the SCSI chain - in my case, the Xerox Datacopy 730GS Scanner. I tried it the way Apple said to do it, and it didn't work. LaCie technicians told me to terminate the first external device, and sure enough, the system seems to work OK - as far as I can tell.

MacProducts USA Magic 150MB Tape Drive (Teac mechanism, SCSI)

Xerox Datacopy 730GS Flatbed Scanner (SCSI, no SCSI loop through, last box on my SCSI chain, internally terminated)

Abaton InterFax 24/96

Apple LaserWriter IIxt

Kurta IS/ADB Tablet

Opcode Studio 3 SMPTE/MIDI interface linking all devices on the Printer & Modem ports.

SYSTEM SOFTWARE

System 6.0.4 (problems originally surfaced under System 6.0.5)

INITS

*SUM Partition INIT

Apple 32-bit color
 Suitcase II
 TOPS (No volumes published or subscribed to currently)
 Abaton Interfax Control
 SUM Shield
 Central Point's CPS TagFix
 Central Point's Mirror (renamed AAMirror)
 On Cue 1.3
 Handoff II 1.1.2
 AfterDark 2.0
 *Dayna's DOS Mounter
 **Deneba's BigThes Helper
 Daystar Fast Cache 1.0
 Interbase

Opcode MIDI INIT
 RasterOps Montors Extension
 RESOURCEPATCH.INIT
 (What is this???)
 *Responder
 *Retrospect's Retro.SCSI
 SAM Intercept
 LaCie's Silver Init 5.25 (Syquest)
 SoftTalk
 * Berkley System's Stepping Out II 2.02
 Opcode's Studio 3 Init
 Super Boomerang 2.02
 ** Thunder II
 Adobe Type Reunion
 Adobe TypeAlign Startup
 Adobe Type Manager 2.0

CDEVs

General

init cdev 3.0
 Mirror
 After Dark
 Color
 FastCache 1.0
 HandOff II
 InterFax Control
 Keyboard

Monitors
 Mouse
 Opcode MIDI
 Kurta Penworks
 SAM Intercept
 Sound
 Startup Device
 SUM Shield
 Super Boomerang
 Adobe Type Manager

INIT KEY

* Rarely used (disabled with init cdev 3.0).

** Rarely used (found to be very troublesome).

PROBLEM SOFTWARE

Microsoft Word 2.00C - Lots of crashes, and many Wordtemp docs - not only in my System Folder, but other folders as well.

LaCie SilverLining v5.25 - as mentioned earlier, only on specific tests.

Letraset's DesignStudio - the most crash-prone software that I own - but I keep it running much more time, too.

Adobe Streamline - this is actually the buggiest commercial software that I own - and surprisingly so from this publisher. I would be screaming red-faced mad if I used it very much. It regularly garbles its own menus, will not allow quitting (intermittently) without a hardware reboot, and it is a guaranteed crash if you try to create a MacPaint template for Illustrator on a IIci. Adobe's support people represent the company as having a "don't care" attitude about these fatal flaws - with no upgrade planned.

InterFax - to a lesser degree than the others.

PixelPaint Professional - acts funky unless I make the 24-bit color monitor the startup with menu bar. This program is not prepared for multiple screens.

SuperPaint 2.0 - yeah, I've tweaked the preferences settings for nonstandard hardware and another machine, and it still doesn't work on a IIci.

STABLE SOFTWARE

This stuff seems to work most of the time, but maybe not as fast as I would like:

Adobe Photoshop 1.0.7

Adobe Illustrator 88

Adobe Illustrator 3.0 (as far as I tell - limited use so far).

Panorama 1.5

Wingz 1.1

MacDraw II 1.1

Opcodes Vision 1.2f2 (MIDI Sequencer)

Opcodes Librarian for Korg M1

Letraset ImageStudio 1.62

MORE 3.0 (a great program - sad to see it orphaned!)

Dantz Retrospect 1.1

Typestyler 1.02

MicroPhone II 3.0

MacImage 2.30 (Xerox Scanner Software)

+ Many other packages

Summary

Before I get all these "Oh My God" responses about my list of INITs, I should mention that the system was working well, even if unremarkably fast, with most of these INITs in place. I have recently added TOPS and AFTER DARK 2.0, and quit regularly booting DOS Mounter, Big Thesaurus, and Thunder II. I have not been able to closely associate any of these problems with either TOPS or After Dark, although After Dark certainly interferes with many activities such as the FAX modem and Retrospect. TOPS is not yielding any kind of acceptable performance (and, no I am not publishing the 650MB hard drive - only a low-level folder or two). I am serving only to a single other Mac II over LocalTalk. Should be no big deal. (Just don't get suckered into trying it with PSN - Personal Server Network. What a load of junk. 25% owned by Sony, and their registration cards get returned as unredeemed by the US Postal Service!

I would greatly appreciate any new leads on addressing what has become a most perplexing problem to me. Unless Apple can administer some sort of cure on this INIT conflict thing, they need to get out of the workstation business. If there were any comparable software out there, I'd help put them out by buying better price/performance hardware. John Scully said in MacWeek a year or two ago, "We don't want to get into any MIPS wars." I bet he doesn't. But if I had it all over to do, and there were decent software for all that I do available for IBM's RISC 6000 - I'd be true blue in the blink of an eye! I'd go for a NeXT just as fast - if the software were there...

How tragic it seems that the weakest link in the Macintosh system is the Macintosh itself. Thanks for the help, and sorry for the too long download!