Advanced Hardware Troubleshooting:
When A Good Mac Goes Bad

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Who Am I

- Doug Hanley

- MacTEK Consulting & Training

- Apple Consultants Network Advisory Council Member

- Apple Certified Technical Coordinator

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Session Overview

- Safety & Tools

- Eliminate Software Issues

- RAM/Logic Board

- USB / FW

- Video

- Networking

A Word About Safety

- Don't Be Stupid or Careless

- Static is Bad

- Smoke & Ozone are Bad

- High Voltage Is Very Bad

DANGER
HIGH VOLTAGE

Tools

- Cable Tester

- Magnetic Screw Driver/Probe

- Power Outlet Checker

- CDs/FW HD Disk Warrior/Techtool Pro/ Drive Genius

- Best Tools - Five Senses and Your Brain

Eliminating Software Issues

- Apple System Profiler
- Prefs / Alternate User
- Boot from External HD
- Target Disk Boot HD

10 Top Quick Checks

- Check The Connections

- Eliminate Software Causes

- Check The Connections

- Log out - Log In

- PRAM / Open Firmware

10 Top Quick Checks

- Remove External Devices - be systematic

- Remove 3rd Party RAM / Reseat RAM

- Try a different user account

- Boot off a good clean FW Drive or OS X CD

- Did you Check The Connections? - No really?

You've Got Power

- Right Wattage For Laptop

- Dirty Power is Bad

- Brown Outs Are Bad

- UPS from Reliable Manufacturers with Voltage Regulation (Belkin/APC/ Tripplite)

Hard Drives

- S.M.A.R.T

- Use Your Ears

- SBBOD (Spinning Beach Ball Of Death)

- Data Rescue - Prosofteng.com

- Drive Savers

Kernel Panics

- RAM

- HD / SW

- Motherboard or Processor

- USB Devices

RAM

- Use only Apple purchased memory or Crucial memory.

- Use a RAM test app like Tech Tool Pro

- experienced 50% or more hardware related problems in Panther and Tiger to be memory related.

- Memory that used to work fine in OS 9 and Jaguar is not good enough for Panther and Tiger.

USB

- Just because the specification says you can 127 devices per bus

- Powered Hubs - USB 2.0 Better

- Test by removing devices

- System Profiler

Video

- Check the connections

- Universal Access -

- Brightness and Positioning of Display

- Colorsync issues

FW

- Have an 800 to 400 adapter

- Powered FW Hub

- iSight conflicts with certain devices

- Cable Length

Networking

- Eliminate The Easy Stuff First

  - Cable - Check The Connection

  - Bad Port On A Switch

  - Link Lights Are Your Friend

- Routers Can go bad

  - Odds are its bad configuration or the ISP

Q & A
and a drawing