Troubleshooting Methodologies: Hardware, Software and Network Problems

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pre-preso tl;dr

- Feel good? Sorry, bitter truths within
- Listen & observe, but don't expect truth handed to you
- Exude confidence, even if you're not sure yet
- 75% is you NOT being technical, 25% is actual technical brawn
- Stay **HUNGRY**
- OK, feel free to take a nap

Know the boundaries

- Respect the client's patience
- Not all clients want to pay hours just to hunt down one problem (if you have that client: yay!)
- Balance between thoroughness and Alexander at the Gordian Knot

How to diagnose

- Usually they want you to ‘take over’ and figure out what’s going on. Not so fast!
- Tell them to sit in the driver’s seat and ‘show me’ what’s been going on
- Sometimes you have to hear the words that aren’t being spoken
- Your vast experience is your trusty co-pilot.

Troubleshooting Mindset

- Most problems all lead to same core set of problems:
  - Something's broken
  - Something's unplugged
  - Something's glitching
  - Someone did something wrong
- Remember the Gordian Knot

Put them at ease

- I’m here to help
- Commiserate
- **Be** confident – but not cocky
- Pretend to listen even if you’ve already got a bead on the problem

Basics

- Before arriving, prep ahead
- Can the error be reproduced?
- Start small/easy, work your way up to big/hard
- When testing a hypothesis/solution, always give yourself an escape hatch
- BACKUP BACKUP BACKUP

Things to assess

- Isolated to one machine?
- Isolated to one user account?
- Wear and tear? How old is the computer?
- How recent did the problem start? Anything change since then?
- Clean power?

Things to assess

- Does your pristine laptop, as a 'control,' not have the same problem?
- Updates recently applied?
- What sez the intertoobs?
- Physical location a clue?
- Anything weird going on?

Best Practice Always

- Watch your step
- Swap-out
- Split-half tests
- Consult others
- Sleep on it (luxury!)

Simple easy tricks

- Ahem, restart the machine
- Safe boot – flush the caches
- Create a temp user
- Reseat memory, cables, etc.
- Temp swap the library folder
- Swap cables
- Reapply last combo updater

You fixed it!

- Confirm with the user
- Test and double-test
- Document the issue and solution
- If origins are suspicious, keep an eye out

Tools

Troubleshooting Non-Physical Tools

- GOOGLE!
- Sites/Forums/Lists - Apple Consultants Network
- GOOGLE!
- join.me / logmein / iChat / Skype / VPN
- GOOGLE!

```
4/17/12 9:41:52 PM  iTunes[4266]  _AMDeviceAttachedCallbackv3 (thread 0xb07ae000): Device 'AMDevice 0x1cb7c660 {UDID = 57b3bba74499c9f82abccd98c5cad969
                                  58:77:79:2d:a8@fe80::8e58:77ff:fe79:2da8._apple-mobdev._tcp.local.}' attached.
4/17/12 9:41:52 PM  ath[4579]     _AMDeviceAttachedCallbackv3 (thread 0x7fff708e9cc0): Device 'AMDevice 0x101921fa0 {UDID = 57b3bba74499c9f82abccd98c5c
                                  58:77:79:2d:a8@fe80::8e58:77ff:fe79:2da8._apple-mobdev._tcp.local.}' attached.
4/17/12 9:41:54 PM  AppleMobileDeviceHelper[4528]  _AMDeviceDetached (thread 0xa0ae1540): Device 'AMDevice 0x28137d0 {UDID = 57b3bba74499c9f82abccd98c5cad969671ffe27, d
4/17/12 9:42:00 PM  com.apple.usbmuxd[4264]  _SendDetachNotification (thread 0x7fff708e9cc0): sending detach for device 1c:ab:a7:a4:c6:c6@fe80::1eab:a7ff:fea4:c6c6
4/17/12 9:42:00 PM  usbmuxd[4264]  AMDeviceConnect (thread 0x1005af000): Could not connect to lockdown port (62078) on device 40 - 7538f1e80207d212a6f4f8
4/17/12 9:42:00 PM  usbmuxd[4264]  _AMDevicePreflightWorker (thread 0x1005af000): Pair worker could not connect to lockdownd on device 40: 0xe8000065.
4/17/12 9:42:23 PM  com.apple.usbmuxd[4264]  _SendDetachNotification (thread 0x7fff708e9cc0): sending detach for device 8c:58:77:79:2d:a8@fe80::8e58:77ff:fe79:2da8
4/17/12 9:42:23 PM  iTunes[4266]  _AMDeviceDetached (thread 0xb07ae000): Device 'AMDevice 0x1cb7c660 {UDID = 57b3bba74499c9f82abccd98c5cad969671ffe27,
                                  mobdev._tcp.local.}' detached.
4/17/12 9:42:23 PM  iTunes[4266]  _NotificationSocketReadCallbackGCD (thread 0xa0ae1540): Unexpected connection closure...
4/17/12 9:42:23 PM  ath[4579]     _AMDeviceDetached (thread 0x7fff708e9cc0): Device 'AMDevice 0x101921fa0 {UDID = 57b3bba74499c9f82abccd98c5cad969671ff
                                  mobdev._tcp.local.}' detached.
4/17/12 9:57:37 PM  com.apple.usbmuxd[4264]  _SendAttachNotification (thread 0x7fff708e9cc0): sending attach for device 8c:58:77:79:2d:a8@fe80::8e58:77ff:fe79:2da8
4/17/12 9:57:37 PM  usbmuxd[4264]  _AMDeviceConnectByAddressAndPort (thread 0x1005af000): IPv4
4/17/12 9:57:38 PM  ath[4527]     _AMDeviceAttachedCallbackv3 (thread 0x7fff708e9cc0): Device 'AMDevice 0x1019349d0 {UDID = 57b3bba74499c9f82abccd98c5c
                                  58:77:79:2d:a8@fe80::8e58:77ff:fe79:2da8._apple-mobdev._tcp.local.}' attached.
4/17/12 9:57:38 PM  iTunes[4266]  _AMDeviceAttachedCallbackv3 (thread 0xb07ae000): Device 'AMDevice 0x1cf131a0 {UDID = 57b3bba74499c9f82abccd98c5cad969
                                  58:77:79:2d:a8@fe80::8e58:77ff:fe79:2da8._apple-mobdev._tcp.local.}' attached.
4/17/12 9:57:38 PM  ath[4579]     _AMDeviceAttachedCallbackv3 (thread 0x7fff708e9cc0): Device 'AMDevice 0x100511540 {UDID = 57b3bba74499c9f82abccd98c5c
                                  58:77:79:2d:a8@fe80::8e58:77ff:fe79:2da8._apple-mobdev._tcp.local.}' attached.
4/17/12 10:02:36 PM  com.apple.backupd[4818]  Starting standard backup
4/17/12 10:02:36 PM  com.apple.backupd[4818]  Backing up to: /Volumes/Erased/Backups.backupdb
4/17/12 10:03:01 PM  com.apple.backupd[4818]  No pre-backup thinning needed: 3.61 GB requested (including padding), 196.20 GB available
4/17/12 10:03:49 PM  com.apple.backupd[4818]  Copied 41265 files (184.6 MB) from volume Macintosh HD.
4/17/12 10:03:54 PM  com.apple.backupd[4818]  No pre-backup thinning needed: 3.40 GB requested (including padding), 196.01 GB available
4/17/12 10:04:12 PM  com.apple.backupd[4818]  Copied 2346 files (2.2 MB) from volume Macintosh HD.
4/17/12 10:04:15 PM  com.apple.backupd[4818]  Starting post-backup thinning
4/17/12 10:05:13 PM  com.apple.backupd[4818]  Deleted backup /Volumes/Erased/Backups.backupdb/Mig_iMac/2012-04-16-212755: 196.20 GB now available
4/17/12 10:05:13 PM  com.apple.backupd[4818]  Post-back up thinning complete: 1 expired backups removed
4/17/12 10:05:13 PM  com.apple.backupd[4818]  Backup completed successfully.
4/17/12 10:06:28 PM  com.apple.usbmuxd[4264]  _SendAttachNotification (thread 0x7fff708e9cc0): sending attach for device 1c:ab:a7:a4:c6:c6@fe80::1eab:a7ff:fea4:c6c6
4/17/12 10:06:32 PM  usbmuxd[4264]  _AMDeviceConnectByAddressAndPort (thread 0x1005af000): IPv4
4/17/12 10:06:32 PM  ath[4579]     _AMDeviceAttachedCallbackv3 (thread 0x7fff708e9cc0): Device 'AMDevice 0x1005123d0 {UDID = 7538f1e80207d212a6f4f89c376
                                  1c:ab:a7:a4:c6:c6@fe80::1eab:a7ff:fea4:c6c6._apple-mobdev._tcp.local.}' attached.
4/17/12 10:06:32 PM  iTunes[4266]  _AMDeviceAttachedCallbackv3 (thread 0xb07ae000): Device 'AMDevice 0x1d2a6e10 {UDID = 7538f1e80207d212a6f4f89c376e1737
                                  1c:ab:a7:a4:c6:c6@fe80::1eab:a7ff:fea4:c6c6._apple-mobdev._tcp.local.}' attached.
4/17/12 10:06:51 PM  com.apple.usbmuxd[4264]  _SendDetachNotification (thread 0x7fff708e9cc0): sending detach for device 1c:ab:a7:a4:c6:c6@fe80::1eab:a7ff:fea4:c6c6
4/17/12 10:06:51 PM  iTunes[4266]  _AMDeviceDetached (thread 0xb07ae000): Device 'AMDevice 0x1d2a6e10 {UDID = 7538f1e80207d212a6f4f89c376e1737aeb3c5d8,
                                  mobdev._tcp.local.}' detached.
4/17/12 10:06:51 PM  iTunes[4266]  _NotificationSocketReadCallbackGCD (thread 0xa0ae1540): Unexpected connection closure...
4/17/12 10:06:51 PM  ath[4579]     _AMDeviceAttachedCallbackv3 (thread 0x7fff708e9cc0): Device 'AMDevice 0x10050eb70 {UDID = 57b3bba74499c9f82abccd98c5c
                                  58:77:79:2d:a8@fe80::8e58:77ff:fe79:2da8._apple-mobdev._tcp.local.}' attached.
```

ogle apple-mobdev._tcp.local

h About 803 results (0.49 seconds)

ng

iTunes "Sync WiFi" (iPhone4) and infinite WiFi logs/callback, you ...
forums.macrumors.com › ... › Mac OS X › Mac OS X 10.7 Lion
Oct 18, 2011 – _apple-**mobdev**._**tcp**.**local**.: _BrowseReplyReceivedCallback got bonjour removal. 18/10/11 15:28:14642 com.**apple**.usbmuxd: ...

Display Problem - Apr 8, 2012
Woke Up To Mini Shut Down - Jan 20, 2012
iOS5 and battery life - Oct 17, 2011
More results from forums.macrumors.com »

ons

Weird System Log Error: Apple Support Communities
https://discussions.**apple**.com/thread/3399638?start=0&tstart=0
Dec 19, 2011 – _apple-**mobdev**._**tcp**.**local**.: _BrowseReplyReceivedCallback got bonjour removal. Oct 16 15:28:56 Athena com.**apple**.usbmuxd[34]: ...

Lion:WiFi not autoconnecting after...: **Apple** Support Communities - Apr 14, 2012
iPhone 4S not recognized by iTunes for...: **Apple** Support ... - Apr 5, 2012
So many problems with iTunes Match...: **Apple** Support ... - Apr 4, 2012
Having problems importing and editing...: **Apple** Support ... - Mar 26, 2012
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arch tools

osx - How to fix message spam from usbmuxd in console ...
apple.stackexchange.com/.../how-to-fix-message-spam-from-usbmux...
apple-**mobdev**.**tcp**.**local**.: _BrowseReplyReceivedCallback got bonjour removal. 11.01.12 21:21:46596 com.**apple**.usbmuxd: _SendAttachNotification (thread ...

XYMer's Home away from Home • View topic - Empty zombie folder c...
x704.net › Board index › Computers › OS X
25 posts - 5 authors - Dec 27, 2011
apple-**mobdev**.**tcp**.**local**.: _BrowseReplyReceivedCallback got bonjour removal. 12/27/11 12:23:18 PM com.**apple**.usbmuxd[19] ...

Mac Mini lockups :(- Mac-Forums.com
www.mac-forums.com/forums/**apple**.../264090-mac-mini-lockups.ht...
4 posts - 2 authors - Jan 19
apple-**mobdev**.**tcp**.**local**.}' attached. 19/01/12 9:11:31.085 PM com.**apple**. usbmuxd: _SendDetachNotification (thread 0x7fff7cc6a960): ...

How to fix message spam from usbmuxd in console (_SendDetachNotification/_SendAttachNotification)

4

2

My console is flooded with messages like these:

```
11.01.12 21:21:39,819 com.apple.usbmuxd: _SendDetachNotification (thread 0x7fff7f6cb960): se
11.01.12 21:21:46,596 com.apple.usbmuxd: _SendAttachNotification (thread 0x7fff7f6cb960): se
11.01.12 21:21:46,729 usbmuxd: _AMDeviceConnectByAddressAndPort (thread 0x100781000): IPv4
```

They always happen in this combination of three messages and around every 10-30seconds

Any suggestions where this is coming from and how to fix/disable it?

Edit: (additional Infos)
Ok it seems to be originating from my iPhone (MAC `d0:23:db:3e:0b:82`)...

There are no Wifi-Printers or anything like that in the Network.
And the Messages are still there when all USB Devices are disconnected.

Edit2:
This seems to be coming from iPhone Wifi-Sync, is there any way to get rid of this spam without diabling Wifi-Sync for the phone?

osx lion iphone ios console

link improve this question

edited Jan 18 at 11:05

asked Jan 11 at 20:30
bardiir
83 8

welcome!

This is a collaboratively edited question and answer site for **power users of Apple hardware and software.** It's 100% free, no registration required.

Got a question about the site itself? meta is the place to talk about things like what questions are appropriate, what tags we should use, etc.

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tagged

lion × 2145
osx × 2082
iphone × 1852
ios × 897
console × 26

asked **3 months ago**
viewed **834 times**
active **20 days ago**

Web Resources

http://www.macenterprise.org

http://www.omnigroup.com/mailman/listinfo

https://lists.apple.com/mailman/listinfo

https://discussions.apple.com/

http://consultants.apple.com/

http://macintouch.com/

http://www.afp548.com/

http://xlr8yourmac.com/

http://apple.stackexchange.com/

http://macfixit.com/

http://hints.macworld.com/

http://www.commandlinefu.com/

http://www.macsurfer.com/

http://www.macobserver.com/tmo/features/tmo_quick_tip/

Troubleshooting Physical Tools

- Ext. drives with various systems/ installers/updaters
- Network / tone / ground tester. Cables!
- Don’t be stingy with good drivers
- Real champ? Carry spare RAM!
- Real champ with strong back? Spare UPS!

FireWire

FLUKE

ENHANCED NETWORK
CABLE TESTER
POWER
GND
Network
Cable
Terminator

Voyager Q

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2. Hinged flap for 3.5" drive access
3. drive eject lever for safe removal of 3.5" drives
4. Status LED:
   Blue = Power
   Flashing Red = Disk Activity
5. Power receptacle
6. USB 3.0/2.0/1.1 port
7. eSATA port
8. Two FireWire 800 (1394b) ports
9. FireWire 400 (1394a) port

Works with Macs AND PCs!

Built-in Tools

- Disk Utility
- Activity Monitor
- System Info / Profiler
- Console
- Terminal

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TextWrangler

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- Unix And Server Administrator's Tool
- Powerful Text Transformer And Manipulator
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TextWrangler Overvi

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Benefits
Take The Tour
Testimonials
Requirements
Updates

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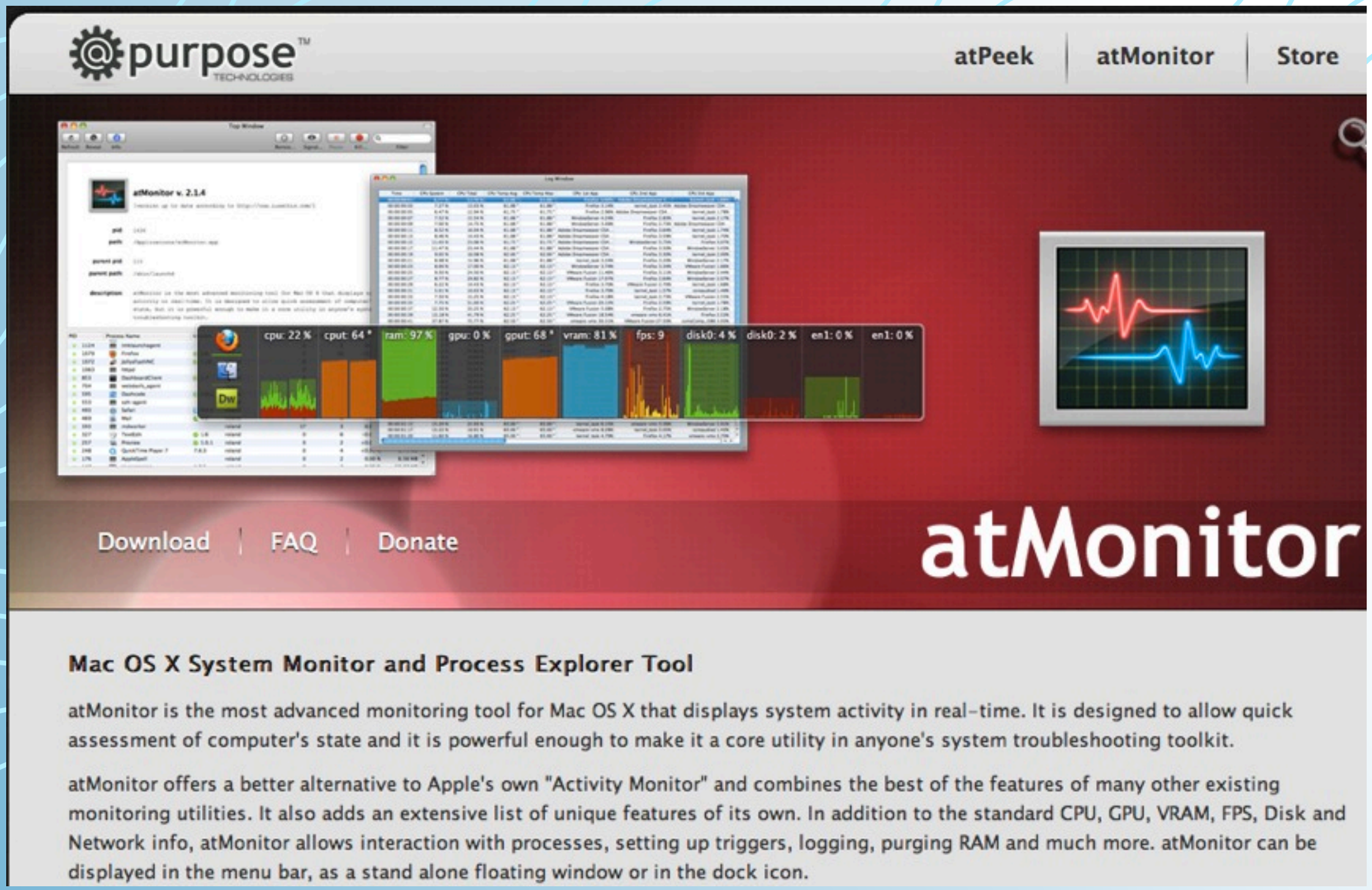

Mac OS X System Monitor and Process Explorer Tool

atMonitor is the most advanced monitoring tool for Mac OS X that displays system activity in real-time. It is designed to allow quick assessment of computer's state and it is powerful enough to make it a core utility in anyone's system troubleshooting toolkit.

atMonitor offers a better alternative to Apple's own "Activity Monitor" and combines the best of the features of many other existing monitoring utilities. It also adds an extensive list of unique features of its own. In addition to the standard CPU, GPU, VRAM, FPS, Disk and Network info, atMonitor allows interaction with processes, setting up triggers, logging, purging RAM and much more. atMonitor can be displayed in the menu bar, as a stand alone floating window or in the dock icon.

Mactracker

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from the Mac App Store

Download App
Mac OS X 10.5.4 or later

Mactracker provides detailed information on every Apple Macintosh computer ever made, including items such as processor speed, memory, optical drives, graphic cards, supported Mac OS versions, and expansion options. Also included is information on Apple mice, keyboards, displays, printers, scanners, digital cameras, iPod, Apple TV, iPhone, iPad, Wi-Fi Cards/Base Stations, Newton, iOS and Mac OS versions.

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ORGANIZATION

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Features Screenshots Skins

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Screenshots

» Extensions » Adblock Plus

Adblock Plus 2.0.3

by Wladimir Palant

Annoyed by adverts? Troubled by tracking? Bothered by banners? Install Adblock Plus now to regain control of the internet and change the way that you view the web.

A short video overview is available at http://www.youtube.com/watch?v=oNvb2SjVjjI

Download Now Privacy Policy

Works with Firefox 3.6.13 - 14.0a1 · View other versions

★★★★★

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14,396,213 users

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What you have to learn

- Files & Permissions
- OS X standard directories
- Single user mode
- Terminal commands
- What OS X can do for you

What you should learn

- CUPS localhost:631
- dscacheutil -flushcache
- dd and GNU ddrescue
- fs_usage tcpdump -vv -i en0
- redirect output to text file for uber-manipulation

TextWrangler File Edit Text View Search Window #! Help

dir_test2.txt

Last Saved: 4/18/12 12:15:38 AM
File Path ▾ : ~/Desktop/mig_preso/dir_test2.txt

dir_test2.txt

```
total 36624
drwxr-xr-x@  5 root  admin       170 Dec 22  2007 -OLD DESKTOPS -02-05
drwxr-xr-x  42 root  admin      1428 Mar 24  2009 .
drwxrwxr-x  13 root  admin       510 Apr 16 14:04 ..
-rw-r--r--   1 root  admin      7452 Oct 18  2006 .583-182879591-1.rtf
-rw-r--r--   1 root  admin      8685 Oct 19  2006 .583-182981759-3.rtf
-rw-rw-r--@  1 root  admin     21508 Apr 15 16:37 .DS_Store
drwx------@  5 root  admin       170 Feb 27 16:12 .Spotlight-V100
-rw-rw-rw-@  1 root  admin  11797888 Sep 26  2007 .SymAVQSFile
drwxrwxrwt@  3 root  admin       102 Oct 12  2007 .Temporaryltems
d-wx-wx-wt@  3 root  admin       102 Mar 28 15:32 .Trashes
-rw-r--r--   1 root  admin         0 Mar 24  2009 .com.apple.timemachine.supported
drwx------   9 root  admin       306 Feb 27 16:12 .fseventsd
-r--r--r--@  1 root  admin       156 Dec  8  2003 .hidden
-rw-------@  1 root  admin    131072 May 12  2006 .hotfiles.btree
-rw-r--r--   1 root  admin         0 Apr 21  2007 .symSchedScanLockxz
dr-xr-xr-x   2 root  admin        68 Oct 12  2007 .vol
drwxrwxr-x@ 91 root  admin      3094 Oct 12  2007 Applications
-rw-rw-rw-@  1 root  admin       512 Nov 16  2004 Auth-DigitalPerformer 4.5
drwx------   3 root  admin       102 Jan 22  2008 Desktop
-rw-r--r--@  1 root  admin    192512 Sep  3  2007 Desktop DB
-rw-r--r--@  1 root  admin   1609058 Aug 28  2007 Desktop DF
drwxrwxr-x@  2 root  admin        68 Sep 26  2003 Desktop Folder
drwxrwxr-t@ 50 root  admin      1700 Oct 12  2007 Library
drwxr-xr-x@  2 root  admin        68 Oct 12  2007 Network
drwxr-xr-x   4 root  admin       136 Oct 12  2007 System
drwxr-xr-x@ 51 root  admin      1734 Oct 12  2007 System Folder
drwxr-xr-x@ 17 root  admin       578 Oct 12  2007 THE80's
drwxrwxr-t  10 root  admin       340 Oct 24  2007 Users
drwxr-xr-x@  4 root  admin       136 Oct 12  2007 automount
drwxr-xr-x@ 40 root  admin      1360 Oct 12  2007 bin
drwxrwxr-t@  2 root  admin        68 Dec  8  2003 cores
dr-xr-xr-x@  2 root  admin        68 Oct 12  2007 dev
lrwxr-xr-x@  1 root  admin        11 Mar 28 16:08 etc -> private/etc
drwxr-xr-x@ 170 root  admin      5780 Nov 18  2007 iPodDump
lrwxr-xr-x@  1 root  admin         9 Mar 28 16:28 mach -> /mach.sym
-r--r--r--@  1 root  admin    603980 Oct 12  2007 mach.sym
-rw-r--r--@  1 root  admin   4347724 Feb 22  2007 mach_kernel
drwxr-xr-x@ 12 root  admin       408 Oct 12  2007 other
drwxr-xr-x@  6 root  admin       204 Oct 12  2007 private
drwxr-xr-x@ 64 root  admin      2176 Oct 12  2007 sbin
drwxr-xr-x@ 59 root  admin      2006 Jan 20  2008 theripperc
drwxr-xr-x@ 14 root  admin       476 Jan 22  2008 tv-video

/Volumes/465c/-OLD DESKTOPS -02-05:
total 16
```

1 1 (none) Unicode (UTF-8) Unix (LF) 2,644 / 474 / 43

dir_test1.txt

Last Saved: 4/18/12 12:15:36 AM
File Path ▾ : ~/Desktop/mig_preso/dir_test1.txt

dir_test1.txt

```
total 36640
drwxr-xr-x@  5 admin      admin       170 Dec 22  2007 -OLD DESKTO
drwxr-xr-x  49 _unknown   _unknown   1734 Mar 24  2009 .
drwxrwxrwt@  6 root       admin       204 Apr 17 00:29 ..
-rw-r--r--   1 macports   admin      7452 Oct 18  2006 .583-182879
-rw-r--r--   1 macports   admin      8685 Oct 19  2006 .583-182981
-rw-rw-r--@  1 admin      admin     21508 Apr 15 16:35 .DS_Store
drwx------@  5 root       admin       170 Feb 27 16:12 .Spotlight-
-rw-rw-rw-@  1 root       admin  11797888 Sep 26  2007 .SymAVQSFil
drwxrwxrwt@  3 admin      admin       102 Oct 12  2007 .Temporaryl
d-wx-wx-wt@  3 root       admin       102 Apr 17 00:29 .Trashes
-rw-r--r--   1 _unknown   _unknown     0 Mar 24  2009 .com.apple.
drwx------  11 _unknown   _unknown   374 Apr 15 16:36 .fseventsd
-r--r--r--@  1 root       wheel       156 Dec  8  2003 .hidden
-rw-------@  1 root       admin    131072 May 12  2006 .hotfiles.b
-rw-r--r--   1 admin      admin         0 Apr 21  2007 .symSchedSc
dr-xr-xr-x   2 root       wheel        68 Oct 12  2007 .vol
drwxrwxr-x@ 91 root       admin      3094 Oct 12  2007 Applicatio
-rw-rw-rw-@  1 admin      admin       512 Nov 16  2004 Auth-Digito
drwx------   3 _unknown   _unknown   102 Jan 22  2008 Desktop
-rw-r--r--@  1 root       admin    192512 Sep  3  2007 Desktop DB
-rw-r--r--@  1 root       admin   1609058 Aug 28  2007 Desktop DF
drwxrwxr-x@  2 root       admin        68 Sep 26  2003 Desktop Fol
drwxrwxr-t@ 50 root       admin      1700 Oct 12  2007 Library
drwxr-xr-x@  2 root       wheel        68 Oct 12  2007 Network
drwxr-xr-x   4 root       wheel       136 Oct 12  2007 System
drwxr-xr-x@ 51 admin      admin      1734 Oct 12  2007 System Fold
drwxr-xr-x@ 17 admin      admin       578 Oct 12  2007 THE80's
drwxrwxr-t  10 root       admin       340 Oct 24  2007 Users
drwxr-xr-x@  4 root       admin       136 Oct 12  2007 automount
drwxr-xr-x@ 40 root       wheel      1360 Oct 12  2007 bin
drwxrwxr-t@  2 root       admin        68 Dec  8  2003 cores
dr-xr-xr-x@  2 root       wheel        68 Oct 12  2007 dev
lrwxr-xr-x@  1 root       admin        11 Oct 12  2007 etc -> priv
drwxr-xr-x@ 170 _unknown   _unknown   5780 Nov 18  2007 iPodDump
lrwxr-xr-x@  1 root       admin         9 Oct 12  2007 mach -> /ma
-r--r--r--@  1 root       admin    603980 Oct 12  2007 mach.sym
-rw-r--r--@  1 root       wheel   4347724 Feb 22  2007 mach_kernel
drwxr-xr-x@ 12 admin      macports    408 Oct 12  2007 other
drwxr-xr-x@  6 root       wheel       204 Oct 12  2007 private
drwxr-xr-x@ 64 root       wheel      2176 Oct 12  2007 sbin
drwxr-xr-x@ 59 _unknown   _unknown   2006 Jan 20  2008 theripperc
drwxr-xr-x@ 14 _unknown   _unknown    476 Jan 22  2008 tv-video

/Volumes/465c/-OLD DESKTOPS -02-05:
total 16
```

1 1 (none) Unicode (UTF-8) Unix (LF) 2,938 / 471 / 43

Differences

New File:~/Desktop/mig_preso/dir_test2.txt ← Apply Apply → **Old File:** ~/Desktop/mig_preso/dir_test1.txt

Nonmatching Lines (File dir_test2.txt; Line 1:43; File dir_test1.txt; Line 1:43)
Nonmatching Lines (File dir_test2.txt; Line 47:51; File dir_test1.txt; Line 47:51)
Nonmatching Lines (File dir_test2.txt; Line 55:89; File dir_test1.txt; Line 55:89)

Advanced

EMPOWER ANY USER,
ANY DEVICE, ANYWHERE

Here's how »

10 Things

10 Linux rescue tools for recovering Linux, Windows, or Mac machines

By Jack Wallen
April 14, 2010, 8:39 AM PDT

Takeaway: When you're dealing with a system that won't boot, you need a robust and dependable recovery tool. Here are a few Linux tools that might save the day.

Our consulting firm has had a rash of problems recently that required the help of Linux rescue tools. From corrupt partition tables to severely infected machines, Linux tools come in handy when the host system won't boot. But because of the plethora of tools available, it's sometimes tough to sift through the cruft and find the ones that are usable. So I decided to highlight some of the better tools. I hope one or two of them will find their way to your toolkit.

Thank You

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