

Apple General Troubleshooting Flowchart



Quick Fixes

Consider First (Innocuous)

The following fixes have little or no impact on the system:

- Restart/shut down
- Run System Profiler
- Check Top Support Questions¹ if issue seems familiar
- Start up in Safe Mode (startup issues)
- Suppress Auto-Login
- Suppress Login items
- Use known-good disc (e.g., CD, DVD, Zip), Install Mac OS, Restoration, or MacTest Pro CD
- Access through Target Disk Mode
- Repair volume with Disk Utility
- Start up in single-user mode (startup issues)
- Start up in verbose mode (startup issues)
- Relaunch Finder
- Disconnect all external devices
- Turn off Screen Saver and Energy Saver (installation)
- Verify with other users (network issue)
- Connect to another device or volume (network)
- Check for SMTP connection (network)
- Connect to PPP test server (modem)
- Open iChat (network)
- Browse Network icon in Finder window (network)
- Use Connect to Server (network)
- Check that cables are well seated in proper ports (network)

Consider Next (Less Innocuous)

The following fixes have a moderate impact on the system:

- Grab IP address by opening a Web browser
- Adjust user settings
- Disable fast user switching
- Configure printer
- Check Firewall setting (network)

¹ Authorized service technicians only.

- Check Active Ports setting
- Check Startup Disk selection (startup)
- Force quit
- Log in as test user
- Reset permissions
- Move, rename, or delete preference file
- Update printer driver (printing)
- Update firmware
- Change ports (e.g., Ethernet, USB)
- Use known-good peripherals (e.g., monitor, disk drive, printer)
- Reset Keychain passwords
- Reset Open Firmware

Consider Last (Invasive)

The following fixes have a more drastic impact on the system:

- Reinstall suspect application
- Reset PRAM
- Reset PMU/SMU
- Remove non-Apple RAM
- Perform a soft reset (AirPort—all base station models)
- Perform a hard reset (AirPort—all base station models)

Diagnostic Tools

The following tools are common diagnostic tools found on Mac OS X:

- DigitalColor Meter
- Disk Utility
- System Profiler
- Network Utility
- Apple Service Diagnostic²
- Apple Hardware Test
- MacTest Pro³
- Tech Tool Deluxe⁴

² Available to Apple-authorized service providers and AppleCare Technician Training customers only.

³ Available to Apple-authorized service providers.

⁴ Available with purchase of AppleCare Protection Plan.
Apple General Troubleshooting Flowchart with Notes—2

- Display Utilities⁵

Systematic Fault Isolation Techniques

The following are systematic fault isolation techniques:

- Start up in single-user mode (startup issues)
- Start up in Safe Mode (startup issues)
- Perform a Safe Login (startup- and account-related)
- Systematically kill processes
- Disconnect peripherals
- Component isolation
- Perform OS Archive and Install

Research Resources

The following are common resources for troubleshooting Mac OS X issues:

- Service manuals
- Logs
- Read Me files
- Mac Help
- User's manuals
- Network Utility
- Console
- Process Viewer
- UNIX commands
- Apple Support page (<http://www.info.apple.com/>)
- Knowledge Base
- Service Source⁶

Repair/Replace

First Choices

The following should be tried first when repairing or replacing:

- Run `-fsck`
- Update driver

5 Available to Apple-authorized service providers.

6 Apple-authorized service providers and AppleCare Technician Training customers only.

- Run Disk Utility
- Run AirPort Admin Utility
- Run Setup Assistant
- Run Directory Access
- Run UNIX commands
- Target Disk Mode

Second Choices

The following should be tried after the appropriate first choices have been tried:

- Adjust user controls
- Reset PRAM

Third Choices

The following should be tried after the appropriate first and second choices have been tried:

- Use AirPort Management Utility (AMU)
- Perform recommended (default) Mac OS X installation
- Perform Archive and Install
- Erase and restore from Restore DVDs
- Perform Erase and Install from a Mac OS X install CD
- Repair with ASD, AHT, MTP
- Use Terminal