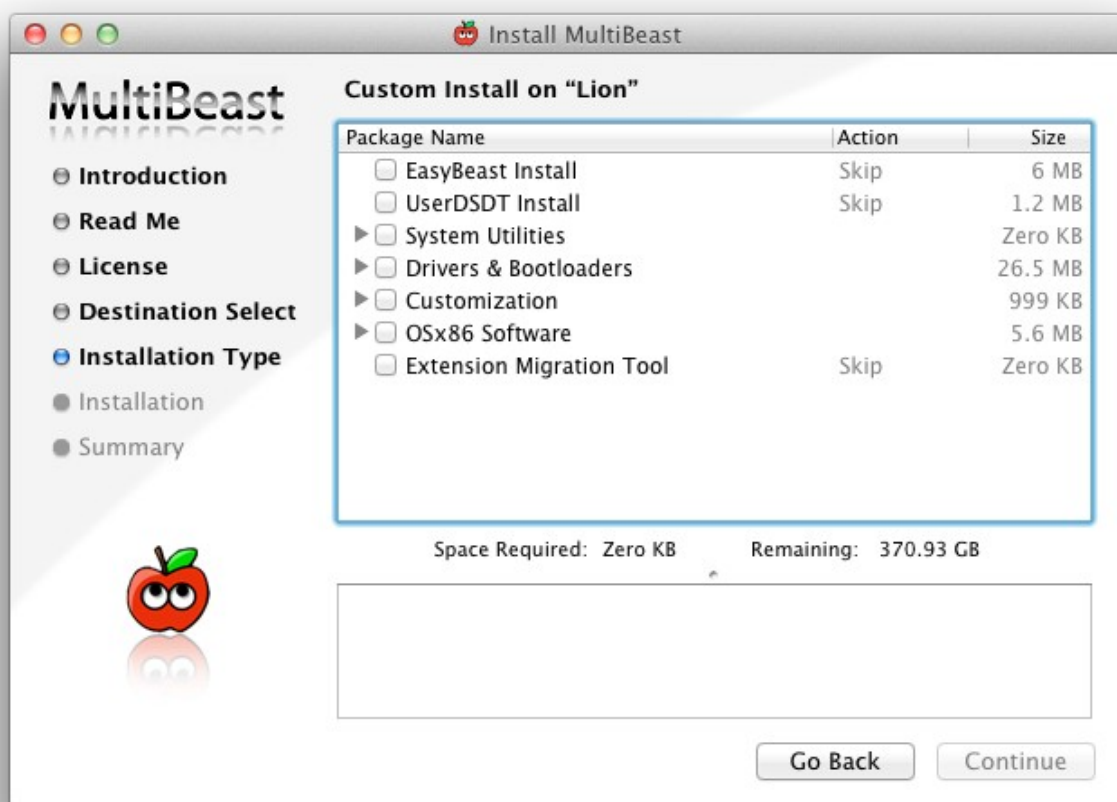




# MultiBeast



**MultiBeast** is an all-in-one post-installation tool designed to enable boot from hard drive, and install support for Audio, Network, and Graphics. It contains two different complete post-installation solutions: EasyBeast and UserDSDT. In addition it includes System Utilities to rebuild caches and repair permissions and a collection of drivers, bootloaders, boot time config files and handy software.

This document will reference all of the features of MultiBeast, as described inside the installer itself. The iBoot + MultiBeast guide is available at the [tonymacx86 Blog](http://tonymacx86.com).

Please read all of the descriptions carefully. You may run MultiBeast as often as you like, but keep in mind that it will not uninstall items, just overwrite them.

**tonymacx86 & MacMan**  
[www.tonymacx86.com](http://www.tonymacx86.com)



# iBoot

Plus MultiBeast

## For Mac OS X Snow Leopard 10.6

1. Follow all [Tips & Recommendations](#)
2. Install using iBoot + Retail Snow Leopard DVD
3. Boot with iBoot
4. Set up Computer
5. Run Combo Update - DON'T REBOOT
6. Run MultiBeast
7. Reboot



## UniBeast

## For Mac OS X Lion 10.7

1. Purchase OS X Lion (Retail App or USB)
2. Prepare a USB drive
3. Create a bootable USB drive using UniBeast
4. Boot from the UniBeast created drive and install OS X Lion
5. Using the UniBeast created drive boot the new installation
6. Run MultiBeast

Thanks to the [Chameleon](#) team, [netkas](#), [Project OS X](#), [Cheetha.net](#), hnak and [cVaD](#) for their contributions that makes this tool possible.

Additional thanks to the tonymacx86 community for their testing and contributions to this work. Special thanks to all of the mods: adamsmasher, beelzebozo, Burninator, Complx, eelhead, Going Bald, gordo74, karacho, [Lnx2Mac](#), marosell, ModBot, ModBot Jr., notshy, Stork, thelostswede, toleda, and Vendetta.



## EasyBeast Install

EasyBeast is a DSDT-free solution for Core 2 or Core i systems. It installs Chimera v1.7.0 r1394 to allow your system to boot from the hard drive. Installs FakeSMC.kext, LegacyAppleRTC.kext, EvOreboot.kext, JMicron36xATA.kext, AHCI\_3rdParty\_SATA.kext, NullCPUPowerManagement.kext, IOUSBFamily.kext and IOUSBMassStorageClass.kext in /System/Library/Extensions. Installs 64-Bit org.chameleon.Boot.plist with GraphicsEnabler=Yes, Apple Boot Screen, UseKernelCache=Yes and npci=0x2000 and darkwake=0 kernel flags, MacPro3,1 smbios.plist and tonymacx86 Remixed theme in /Extra. Backs up /System/Library/Extensions/AppleRTC.kext to ~/Desktop/AppleRTC-Backup and then patches the original to prevent CMOS resets. Does not include any Network or Sound drivers or Graphics support beyond GraphicsEnabler.

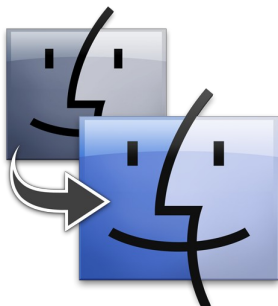


## UserDSDT Install

UserDSDT is a solution for those who have a pre-edited DSDT on the desktop with an .aml extension. Installs your DSDT as DSDT.aml, 64-Bit org.chameleon.Boot.plist with GraphicsEnabler=Yes, Apple Boot Screen, UseKernelCache=Yes, GenerateCStates=Yes, GeneratePStates=Yes and npci=0x2000 and darkwake=0 kernel flags, MacPro3,1 smbios.plist and tonymacx86 Remixed theme in /Extra. Installs FakeSMC.kext in /System/Library/Extensions. Installs Chimera v1.7.0 r1394 so the system will be bootable from the hard drive and ready for sleep with all hardware recognized in System Profiler. Backs up /System/Library/Extensions/AppleRTC.kext to ~/Desktop/AppleRTC-Backup and then patches the original to prevent CMOS. Does not include any Network or Sound drivers or Graphics support beyond GraphicsEnabler.

## Extension Migration Tool

Extension Migration Tool copies the contents of /Extra/Extensions to /System/Library/Extensions, deletes /Extra/Extensions and /Extra/Extension.mkext, rebuilds cache and adds UseKernelCache=Yes to /Extra/org.chameleon.Boot.plist. Backs up /System/Library/Extensions/AppleRTC.kext to ~/Desktop/AppleRTC-Backup and then patches the original to prevent CMOS. Only needs to be run after upgrading from Mac OS X 10.6 Snow Leopard.





# Drivers & Bootloaders

Collection of drivers, bootloaders, boot time config files and handy software. If you're unsure, don't install anything in here. Advanced users may skip EasyBeast and UserDSDT to do an à la carte install using this collection.

## Kexts & Enablers

Kexts or kernel extensions provide additional functionality to the operating system. The kexts contained here provide either enhanced hardware support or are mandatory for non-DSDT based systems. Be sure to read the descriptions carefully before installation.



## Audio

Collection of kexts to enable the on-board Audio on your system. Make sure to read the descriptions carefully and only install the correct files for your audio codec.

### Realtek ALC8xx

Enables audio for motherboards featuring the Realtek ALC888, ALC887/888b, ALC889, ALC885/889a and ALC892 high-definition audio codecs.

#### ALC8xxHDA

MacMan's Unified Audio Injector for Realtek ALC888, ALC887/888b, ALC889, ALC885/889a and ALC892 high-definition audio codecs. If you are not using a modified DSDT, you must also use a HDAEnabler for your specific codec. Installs ALC8xxHDA.kext in /System/Library/Extensions.

#### AppleHDA Rollback

Replaces the current AppleHDA.kext with an unmodified 10.6.2 AppleHDA.kext to restore full functionality for Realtek ALC888, ALC887/888b, ALC889, and ALC892 high-definition audio codecs. on systems running 10.6.3 or later.

#### Non-DSDT HDAEnabler

Required for ALC8xxHDA.kext to work WITHOUT a DSDT and enable audio on motherboards featuring the Realtek ALC888, ALC887/888b, ALC889, ALC885/889a and ALC892 high-definition audio codecs. Make sure you only choose ONE HDAEnabler option. Installs HDAEnabler8xx.kext in /System/Library/Extensions.

### Universal

Enables audio for most codecs. Uses VoodooHDA which is an open source audio driver for devices compliant with the Intel High Definition Audio (HDA) specification, based primarily on code from the FreeBSD hdac driver. It is intended as an Intel-only replacement for AppleHDA. Enables sound without DSDT patching on 32/64-bit systems. Installs VoodooHDA.kext in /System/Library/Extensions.

#### VoodooHDA 0.2.1 / 0.2.2

VoodooLabs branch version 0.2.1.

#### VoodooHDA 0.2.5.6 / 0.2.6.1 / 0.2.7.2 / 0.2.7.3

Project OS X branch version 0.2.6.1. Includes VoodooHDA.prefPane installed in /System/Library/PreferencePanels.



## Disk

Collection of kexts that provide enhanced hardware support for optical and disk drives.

### IOAHCIBlockStorageInjector

Makes drives appear as internal. Installs IOAHCIBlockStorageInjector.kext in /System/Library/Extensions. Not needed when using AHCI\_3rdParty\_SATA.kext.



### 3rdParty SATA

Provides support for the ASMedia ASM1061, JMicron 36x (aka GSATA) and Marvell 88SE912 SATA controllers. All drives connected to these ports show on the desktop as Internal and can NOT be hot swapped. Installs AHCI\_3rdParty\_SATA.kext in /System/Library/Extensions.

### 3rdParty eSATA

Provides support for the ASMedia ASM1061, JMicron 36x (aka GSATA) and Marvell 88SE912 SATA controllers. All drives connected to these ports show on the desktop as External and can be hot swapped. Installs AHCI\_3rdParty\_eSATA.kext in /System/Library/Extensions.

### JMicron36x ATA

MacMan's version of JMicronATA. Enables the IDE port on the JMicron 36x (aka GSATA) chips. Supports optical and hard drives. Installs JMicron36xATA.kext in /System/Library/Extensions.

### TRIM Enabler

This will patch

/System/Library/Extensions/IOAHCIFamily.kext/Contents/PlugIns/IOAHCIBlockStorage.kext to add support for non-Apple SSD drives. The original IOAHCIFamily.kext will be backed up to ~/Desktop/IOAHCIFamily-Backup/. Installation will fail if ~/Desktop/IOAHCIFamily-Backup/ already exists.



## Graphics

Install to enable QE/CI full Graphics acceleration. Only install if the default GraphicsEnabler=Yes is not working correctly.

### ATI 48xx Patch

Netkas.org packages to get QE/CI on Radeon HD 48xx cards for 10.7.0/10.7.1. Installs patched ATI4800Controller and ATIRadeonX2000 to /System/Library/Extensions.

### ATI 48xx Device Injector

Installs ATI48xxInjector.kext in /System/Library/Extensions which is a device ID injector that provides all device IDs for ATI 48xx cards.

### NVIDIA GF100 Fermi Patches – OpenCL Enabler

This patches /System/Library/Extensions/GeForceGLDriver.bundle using patch info from netkas.org.



## Miscellaneous

Collection of miscellaneous kexts that provide enhanced hardware support or mandatory for systems not using a DSDT. EasyBeast and UserDSDT already installs all of the mandatory kexts. Be sure to read the descriptions carefully before installation.

### **ElliottForceLegacyRTC.kext**

Prevents a CMOS reset on reboot without a DSDT. Installs ElliottForceLegacyRTC.kext in /System/Library/Extensions.

### **EvOreboot**

If you don't have a DSDT, shutdown and reboot do not work without this kext. Installs EvOreboot.kext in /System/Library/Extensions.

### **FakeSMC**

FakeSMC.kext is the only absolutely mandatory kext, and is required for booting the system. Original by netkas, new branch by Project OS X. Installs FakeSMC.kext in /System/Library/Extensions.

### **FakeSMC Plugins**

Installs ACPIMonitor.kext, IntelCPUMonitor.kext and SuperIOFamily.kext FakeSMC plugins to /System/Library/Extensions/. These plugins allow software access to motherboard hardware monitors.

### **IOUSBFamily Rollback**

Replaces the current IOUSBFamily.kext and IOUSBMassStorageClass.kext with the unmodified 10.6.2 and 10.6.4 versions to restore full functionality to non-DSDT systems running 10.6.3 or later.

### **NullCPUPowerManagement**

Disables AppleIntelCPUPowerManagement.kext to prevent kernel panic without proper HPET DSDT edits. Installs NullCPUPowerManagement.kext in /System/Library/Extensions.

### **PS/2 Keyboard/Mouse/Trackpad**

Enables non-USB keyboards, mice and trackpads. Installs AppleACPIPS2Nub.kext and ApplePS2Controller.kext in /System/Library/Extensions.

### **USB 3.0 – NEC/Reneseas and Etron**

Enables USB 3.0 ports for systems using the NEC/Renesas D720200 controller or Etron EJ168 controller. LaCie driver patched by modbin. Installs PXHCD.kext in /System/Library/Extensions.

### **AppleRTC Patch for CMOS Reset**

This will patch /System/Library/Extensions/AppleRTC.kext/ to prevent CMOS resets. The original AppleRTC.kext will be backed up to ~/Desktop/AppleRTC-Backup/. Installation will fail if ~/Desktop/AppleRTC-Backup/ already exists.





## Network

Collection of kexts to enable on-board Ethernet. Install only ONE.

### **Ln2Mac's RealtekRTL81xx Ethernet**

Enables Realtek 81xx Ethernet controllers by launching Ln2Mac's Installer which installs RealtekRTL81xx.kext in /System/Library/Extensions.

### **Hnak's AppleIntelE1000e Ethernet**

Enables Intel 825xx ethernet controllers. hnak's port of the e1000.sourceforge.net Intel Wired Ethernet for Linux driver. 32/64 bit. Installs AppleIntelE1000e.kext in /System/Library/Extensions.

### **Realtek Gigabit Ethernet 2.0.6**

Official Realtek 2.0.6 for 10.7 driver for 81xx Ethernet controllers. Installs AppleRTL8169Ethernet.kext in /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns.



## Bootloaders

Install ONE of the following options to make your drive bootable. Not necessary for a EasyBeast or UserDSDT install.

### **Chimera v1.7.0**

MacMan's branch of Chameleon 2.0. Further information on features and source can be found [here](#).







# Customization

Click the triangle to expand and view the collection of boot time config files and system customization options.

## Boot Options

Contains pre-edited or scripts to edit /Extra/org.chameleon.Boot.plist files to enable/disable special boot loader features at startup. NOTE: The pre-edited files found here do NOT contain all of the options used in the EasyBeast or UserDSDT org.chameleon.Boot.plist files. If you used EasyBeast or UserDSDT, ONLY use the scripts to add the PCI Root ID Fix or Instant Menu options.

### 32-bit Apple Boot Screen

Pre-edited 32-bit org.chameleon.Boot.plist. Contains GraphicsEnabler=Yes (enables most NVIDIA and ATI Graphics cards), Apple Boot Screen and 32-bit kernel, npci=0x2000 and darkwake=0 kernel flags. Installed in /Extra.

### 32-bit GraphicsEnabler=No

Pre-edited 32-bit org.chameleon.Boot.plist. Contains GraphicsEnabler=No, Apple Boot Screen and 32-bit kernel, npci=0x2000 and darkwake=0 kernel flags. Installed in /Extra.

### 64-bit Apple Boot Screen

Pre-edited 64-bit org.chameleon.Boot.plist. Install ONLY if using a patched DSDT. Contains GraphicsEnabler=Yes (enables most NVIDIA and ATI Graphics cards), Apple Boot Screen and npci=0x2000 and darkwake=0 kernel flags. Installed in /Extra. Not needed when using EasyBeast or UserDSDT.

### 64-bit GraphicsEnabler=No

Pre-edited 64-bit org.chameleon.Boot.plist. Contains GraphicsEnabler=No, Apple Boot Screen and npci=0x2000 and darkwake=0 kernel flags. Installed in /Extra.

### PCI Configuration Fix

Adds npci=0x2000 to Kernel Flags in /Extra/org.chameleon.Boot.plist

### PCI Root ID Fix

Adds PCIRootUID=1 to Kernel Flags in /Extra/org.chameleon.Boot.plist

### Instant Menu

Adds Instant Menu=Yes or replaces Timeout=n in /Extra/org.chameleon.Boot.plist

### Generate CPU States

Adds GenerateCStates=Yes and GeneratePStates=Yes to /Extra/org.chameleon.Boot.plist

### Use KernelCache

Adds UseKernelCache=Yes to /Extra/org.chameleon.Boot.plist. Not needed when using EasyBeast or UserDSDT.







## System Definitions

Contains pre-edited smbios.plist files that will identify your system as a specific Mac model. MacPro3,1 is installed by default by EasyBeast, and UserDSDT installations, and is the general recommendation.

### iMac

These pre-edited smbios.plist files will identify your system as an iMac.

### Mac Pro

These pre-edited smbios.plist files will identify your system as a Mac Pro.

### MacBook Pro

These pre-edited smbios.plist files will identify your system as a MacBook Pro.

### Mac mini

This pre-edited smbios.plist file will identify your system as a Mac mini. Enables multiple port outputs with Intel onboard HD 3000 graphics.

## Themes

Themes for bootloader GUI customization.

### Chameleon Default

Default Chameleon theme. Installed in /Extra.

### tonymacx86 Classic

tonymacx86 theme. Installed in /Extra.

### tonymacx86 Remixed

tonymacx86 theme remixed by complx. Installed in /Extra.



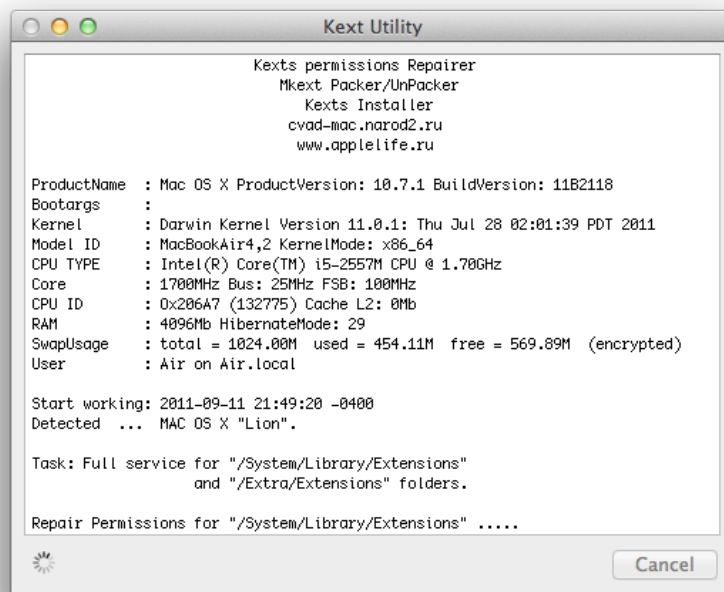


# OSx86 Software

Helpful OSx86 Utilities and Tools. Installed in Applications folder.

## Kext Utility

cVad's utility for kext installation, permission and cache maintenance. To use you simply drag the folder or files you are working with directly on top of the icon in Applications folder or Dock. Installed in /Applications folder. Updated for 10.7 Lion.



## ShowAllFiles

ShowAllFiles enables display of all hidden files in Finder. Very useful for locating hidden boot files, mach\_kernel, etc... Installed in Applications folder.





This tool was created for your personal use and may not be sold or re-distributed without the express written consent of tonymacx86 LLC.

This tool is provided "as is" without warranties of any kind, either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. The entire risk as to the quality and performance of this tool is with you. Should the tool prove defective, you assume the cost of all necessary servicing, repair or correction.

Please consider a [contribution](#) to support further MultiBeast development. Thanks in advance!

Contribute

The copyright to the original works contained within are retained by the original creators.

