



# MultiBeast

MultiBeast is an all-in-one post-installation utility designed to enable boot from a hard drive. It also features a collection of drivers and customization options.



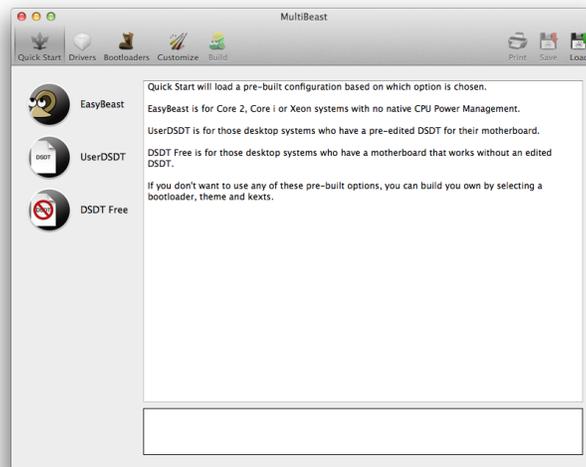
This document will reference all of the features of MultiBeast, as described inside the app itself. Please read all of the descriptions carefully. You may run MultiBeast as often as you like, but keep in mind that it will not uninstall items, just overwrite them.

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

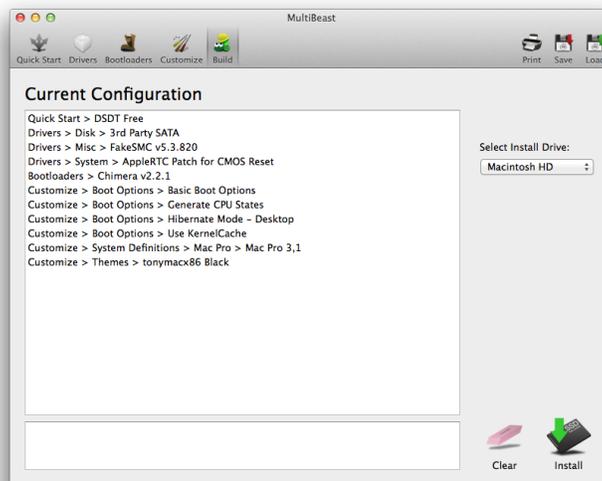
**v6.3.1**



# How to Use MultiBeast



1. Click **Quick Start** to choose EasyBeast, UserDSDT, or DSDT-Free
2. Click **Drivers** for Audio, Graphics, and Network options
3. Click **Customize** for further options
4. Click **Print** or **Save** to back up your configuration
5. Click **Build** then **Install**
6. Restart computer to complete installation



Thanks to the [Chameleon](#) team, [netkas](#), Project OS X, kozlek, toleda, Lnx2Mac, flAKed, cmf, Shailua, the candle, Henties, Rehabman, Zenith432, Mieke and hnak for their contributions that make this tool possible. Additional thanks to the tonymacx86 community for their testing and contributions to this work. Special thanks to all of the tonymacx86.com mods.

**MultiBeast concept and design by tonymacx86, MacMan, and adamsmasher.**  
**MultiBeast 6 user interface, architecture, and development by Rob Wallace.**



## Quick Start

Quick Start will load a pre-built configuration based on which option is chosen. If you don't want to use any of these pre-built options, you can build your own by selecting a bootloader, theme and kexts.

## EasyBeast

EasyBeast is for Core 2, Core i or Xeon systems with no native CPU Power Management. EasyBeast pre-configured choices:

- Drivers -> Disk -> 3rd Party SATA
- Drivers -> Misc -> ElliottForceLegacyRTC
- Drivers -> Misc -> EvOreboot
- Drivers -> Misc -> FakeSMC v6.8.1307
- Drivers -> Misc -> NullCPUPowerManagement
- Drivers -> System -> AppleRTC Patch for CMOS Reset
- Bootloaders -> Chimera v3.0.1
- Customize -> Boot Options -> Basic Boot Options
- Customize -> Boot Options -> Use KernelCache
- Customize -> System Definition -> Mac Pro -> Mac Pro 3,1
- Customize -> Themes -> tonymacx86 Black



## UserDSDT

UserDSDT is for those desktop systems who have a pre-edited DSDT for their motherboard. UserDSDT pre-configured choices:

- Drivers -> Disk -> 3rd Party SATA
- Drivers -> Misc -> FakeSMC v6.8.1307
- Drivers -> System -> AppleRTC Patch for CMOS Reset
- Bootloaders -> Chimera v3.0.1
- Customize -> Boot Options -> Basic Boot Options
- Customize -> Boot Options -> Generate CPU States
- Customize -> Boot Options -> Hibernate Mode - Desktop
- Customize -> Boot Options -> Use KernelCache
- Customize -> System Definition -> Mac Pro -> Mac Pro 3,1
- Customize -> Themes -> tonymacx86 Black

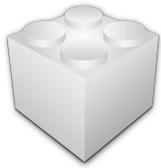


## DSDT-Free

DSDT Free is for those desktop systems who have a motherboard that works without a DSDT. DSDT Free pre-configured choices:

- Drivers -> Disk -> 3rd Party SATA
- Drivers -> Misc -> FakeSMC v6.8.1307
- Drivers -> System -> AppleRTC Patch for CMOS Reset
- Bootloaders -> Chimera v3.0.1
- Customize -> Boot Options -> Basic Boot Options
- Customize -> Boot Options -> Generate CPU States
- Customize -> Boot Options -> Hibernate Mode - Desktop
- Customize -> Boot Options -> Use KernelCache
- Customize -> System Definition -> Mac Pro -> Mac Pro 3,1
- Customize -> Themes -> tonymacx86 Black





## Drivers

Drivers provide additional functionality to the operating system. The drivers 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 ALC887/888b, ALC888, ALC885/889a, ALC889, ALC892, ALC898 or ALC1150 high-definition audio codecs. Click the triangle to expand and then choose the appropriate codec for your environment.

Replaces `/System/Library/Extensions/AppleHDA.kext` with a patched 10.9.3 AppleHDA.kext edited by toleda to enable full functionality for the Realtek ALC887/888b, ALC888, ALC885/889a, ALC889, ALC892, ALC898 or ALC1150 high-definition audio codecs. Patches `/Extra/DSDT.aml` if found to replace the current layout-id with layout-id 1. Adds `HDAEnabler=Yes`, `HDEFLayoutID=01000000` to `/Extra/org.chameleon.Boot.plist`.

#### Optional 3 Port (5.1) Audio

Optional for 3 port audio layouts. Remaps audio input and output ports for 5.1 analog support. Adds `HDEFLayoutID=02000000` to `/Extra/org.chameleon.Boot.plist`.

#### Optional HD 3000/HD 4000 HDMI Audio

Enables HDMI audio on HD 3000/4000 with limited analog output options. Adds `HDEFLayoutID=03000000` to `/Extra/org.chameleon.Boot.plist`.

#### Optional EFI Installed Bootloader Support

Allows installation of patched AppleHDA without checking for required files. Does not edit `/Extra/org.chameleon.Boot.plist`.

#### Intel 9 Series Motherboard Support

Mandatory patch for Intel 9 Series motherboard audio. Patches `/System/Library/Extensions/AppleHDA.kext/Contents/PlugIns/AppleHDAController.kext/Contents/MacOS/AppleHDAController` with new 9 Series Device ID. Requires MultiBeast 6.3.0 or later AppleHDA.

#### 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. Click the triangle to expand and then choose the appropriate version. Installs `VoodooHDA.kext` in `/System/Library/Extensions`.

**VoodooHDA 0.2.1 / 0.2.2** - VoodooLabs branches.

**VoodooHDA 0.2.56 / 0.2.61 / 2.7.2 / 2.7.3 / 2.8.2 / 2.8.4** Also installs `VoodooHDA.prefPane` in `/System/Library/PreferencePanels`. 2.8.2/2.8.4 installs `VoodooHdaSettingsLoader.app` in `/Applications` and `getdump` in `/usr/local/bin`.

**VoodooHDA VT2021 2.7.2** - Project OS X branch version 2.7.2 edited by lazybon3 for the VIA VT2021.



## Disk

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

### 3rd Party SATA

Provides support for the ASMedia ASM1061, JMicron 36x (aka GSATA) and Marvell 88SE912x, 88SE9172 and 88SE9230 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.



### 3rd Party eSATA

Provides support for the ASMedia ASM1061, JMicron 36x (aka GSATA) and Marvell 88SE912x, 88SE9172 and 88SE9230 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.

### IOAHCIBlockStorageInjector

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

### Trim Enabler - 10.9.x TRIM Patch

Patches the 10.9.x version of /System/Library/Extensions/IOAHCIFamily.kext/Contents/PlugIns/IOAHCIBlockStorage.kext to enable TRIM on non-Apple SSD drives.

## Graphics

Collection of patches to fully enable graphics capabilities.

### Intel Graphics Patch for Mixed Systems

Patches AppleIntelSNBGraphicsFB.kext and AppleIntelFramebufferCapri.kext to enable the use of the HD 3000 GPU on 7-Series motherboards and the HD 4000 GPU on 6-Series motherboards.



## Misc

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

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 kozlek. Installs FakeSMC.kext in /System/Library/Extensions/.



## **FakeSMC Plugins**

Installs FakeSMC plugins ACPI Sensors.kext, CPUSensors.kext, GPUSensors.kext and LPCSensors.kext in /System/Library/Extensions/FakeSMC.kext/Contents/PlugIns. These plugins allow software access to motherboard hardware monitors.

## **FakeSMC HWMonitor Application**

Hardware Monitoring application from kozlek's branch. Requires FakeSMC Motherboard Plugins. Installs /Applications/HWMonitor.app.

## **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 – Universal**

Zenith432's GenericUSBXHCI.kext to enable USB 3.0. Installs GenericUSBXHCI.kext in /System/Library/Extensions/ and xhcdump in /usr/local/bin. Also enables USB 2.0 on LGA 1156 motherboards that aren't using a DSDT and don't enable Rate Matching Hub in BIOS.

## **VoodooTSCSync**

VoodooTSCSync.kext synchronizes the Timer Stamp Counter (TSC) on x86/Intel®64 CPUs. Only necessary for LGA2011 CPUs. Written by Cosmosis Jones with source available [here](#).

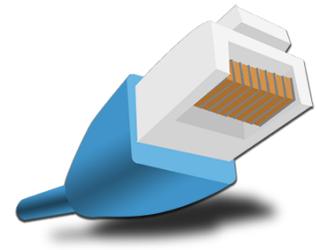
# **Network**

Collection of kexts to fully enable specific Ethernet controllers.

## **Atheros**

### **ALXEthernet**

Shailua's port of the Qualcomm Atheros alx Ethernet Linux driver. Installs ALXEthernet.kext in /System/Library/Extensions /IONetworkingFamily.kext/Contents/PlugIns.



### **AtherosL1cEthernet**

Shailua's updated version of maolj's port of the Atheros Linux driver. Adds support for the AR81(31/32/51/52/61/62/71/72). Installs AtherosL1cEthernet.kext in /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns.

### **Killer ALXEthernet**

gamester3333's version of Shailua's port of the Qualcomm Atheros alx Ethernet Linux driver for the Killer E2200 controller. Installs ALXEthernet.kext in /System/Library/Extensions /IONetworkingFamily.kext/Contents/PlugIns.

## **Intel**

### **AppleIntelE1000e**

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



## Realtek

### RealtekRTL81xx

Enables Realtek 81xx Ethernet controllers. Lnx2Mac's port of the Linux RTL81xx driver merged into Chuck Fry's "Chucko R1000SL" kext. Installs RealtekRTL81xx.kext in /System/Library/Extensions.

### RealtekRTL8111

Mieze's port of the Realtek Linux v8.037.00 driver. Installs RealtekRTL8111.kext in /System/Library/Extensions/IONetworkingFamily.kext/Contents/PlugIns. Project page: [https://github.com/Mieze/RTL8111\\_driver\\_for\\_OS\\_X](https://github.com/Mieze/RTL8111_driver_for_OS_X)

### Realtek – AppleRTL8169Ethernet

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

## System

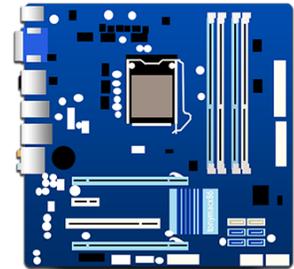
### AppleACPIPlatform Rollback

#### 10.6.8 Rollback for ASUS X58 Systems

Replaces the current AppleACPIPlatform.kext in /System/Library/Extensions with an patched 10.6.8 AppleACPIPlatform.kext by ErmaC for ASUS X58 motherboards running OS X Lion 10.7.4 or later.

#### 10.8.1 Rollback for ASUS X58 Systems

Replaces the current AppleACPIPlatform.kext in /System/Library/Extensions with the 10.8.1 version. Required on some non-Gigabyte motherboards.



### Patched AppleIntelCPUPowerManagement

Replaces the current /System/Library/Extensions/AppleIntelCPUPowerManagement.kext with a version that was patched using AICPMPatch by el coniglio. Deletes /System/Library/Extensions/NullCPUPowerManagement.kext if found.

### AppleRTC Patch for CMOS Reset

Patches /System/Library/Extensions/AppleRTC.kext/ to prevent CMOS resets under Mavericks.



## Bootloaders

Install to make your drive bootable. Does not include any themes.

### Chimera v3.0.1

MacMan's branch of Chameleon 2.2.

chimera 





# Customize

A collection of boot time configuration files and system customization options.

## Boot Options

Contains scripts to edit /Extra/org.chameleon.Boot.plist files to enable/disable special boot loader features at startup.

### Basic Boot Options

Installs /Extra/org.chameleon.Boot.plist with the minimum required options, EthernetBuiltIn=Yes, GraphicsEnabler=No, IGPEnabler=Yes, Legacy Logo=Yes and Timeout=2

### DropSSDT=Yes

Adds DropSSDT=Yes to /Extra/org.chameleon.Boot.plist

### Generate CPU States

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

### GraphicsEnabler=Yes

Changes GraphicsEnabler=No to GraphicsEnabler=Yes in /Extra/org.chameleon.Boot.plist.

### Hibernate Mode - Desktop

Configures the system for Desktop power management hibernate mode and deletes /var/vm/sleepimage to reclaim disk space.

### Hibernate Mode - Laptop

Configures the system for Laptop power management hibernate mode

### IGPEnabler=No

Changes IGPEnabler=Yes to IGPEnabler=No in /Extra/org.chameleon.Boot.plist

### Instant Menu

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

### PCI Root ID Fix

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

### Use KernelCache

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

### Verbose Boot

Adds -v to Kernel Flags in /Extra/org.chameleon.Boot.plist.

### 1080p Display

Adds Graphics Mode = "1920x1080x32" or changes Graphics Mode to "1920x1080x32" in /Extra/org.chameleon.Boot.plist.





## SSDT Options

Optimized versions of Sandy Bridge Core i CPU specific SSDTs. Each CPU type supports a specific maximum Turbo Boot clock rate. Installs SSDT.aml in /Extra.

### Sandy Bridge Core i5

Optimized SSDT supporting Sandy Bridge Core i5 CPUs with a maximum Turbo Boost clock of 3.8 GHz. Installs SSDT.aml in /Extra.



### Sandy Bridge Core i7

Optimized SSDT supporting Sandy Bridge Core i7 CPUs with a maximum Turbo Boost clock of 3.9 GHz. Installs SSDT.aml in /Extra.

### Sandy Bridge Core i5/i7 Overclocked

Optimized SSDT supporting Sandy Bridge Core i5 or Core i7 CPUs overclocked up to 4.2 Ghz. Installs SSDT.aml in /Extra.

## 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

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



## Themes

Themes for bootloader GUI customization. Installed in /Extra.

### Chameleon 2.1 Default

Default Chameleon theme

### Chameleon 2.2 Default

Default Chameleon theme

### tonymacx86 remixed

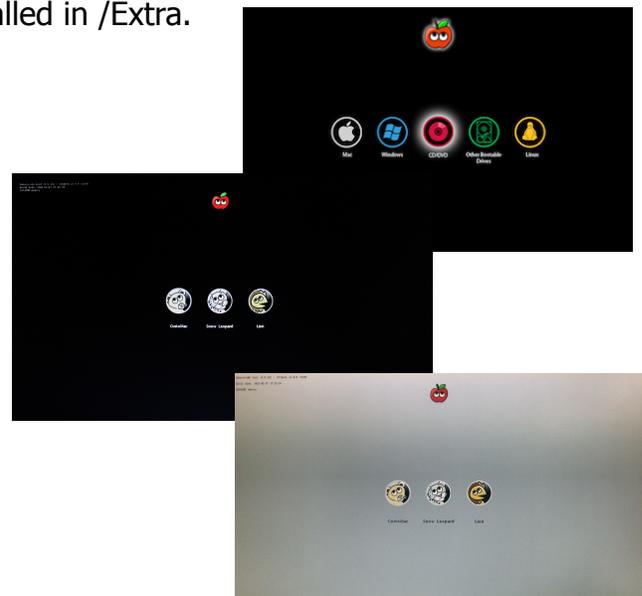
Alternate tonymacx86 theme by Complx

### tonymacx86 Black

Default tonymacx86 theme by Adamsmasher

### tonymacx86 White

Alternate tonymacx86 theme by Adamsmasher





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