MultiBeast

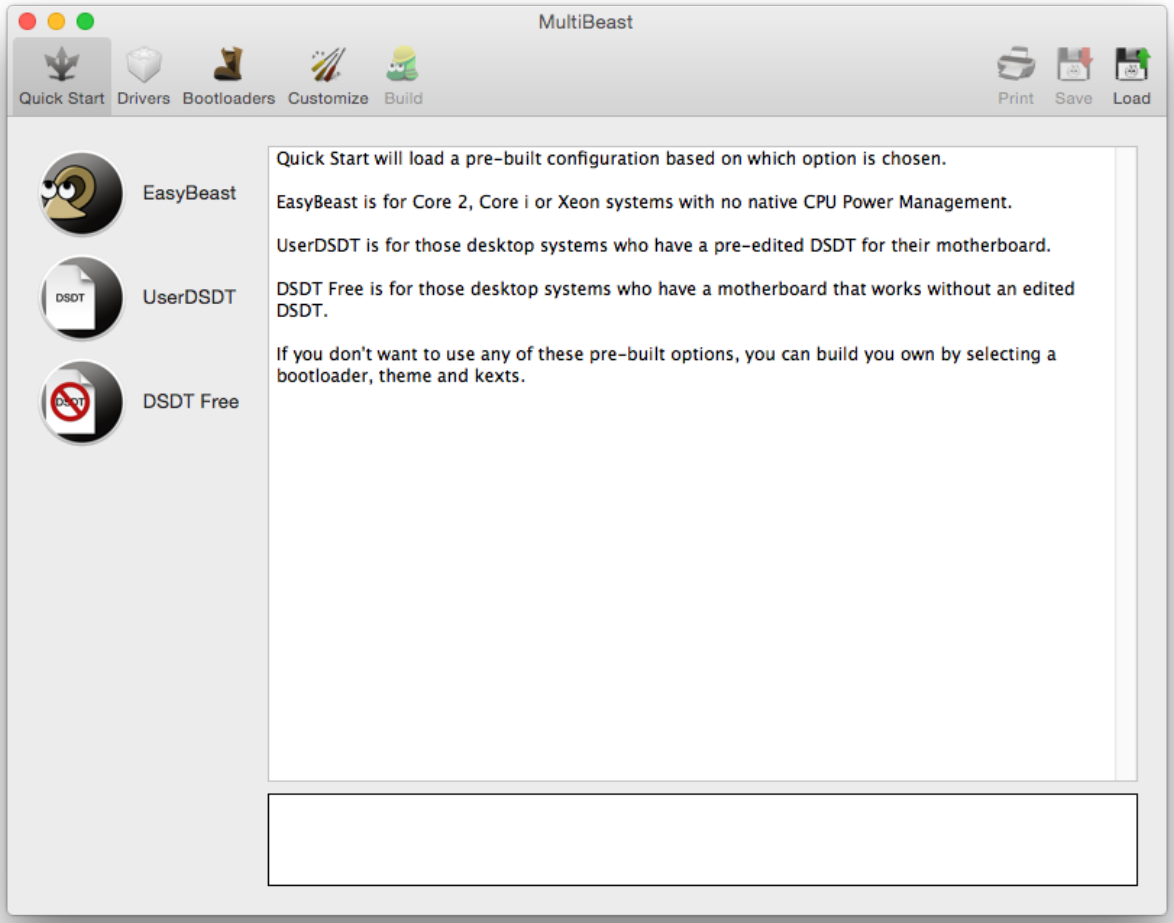
MultiBeast is an all-in-one post-installation utility designed to enable boot from a hard drive. It also features a collection of drivers and customization options.

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

v7.5

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, Mieze 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 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 v6.18.1394
Drivers -> Misc -> NullCPUPowerManagement
Bootloaders -> Chimera v4.1.0
Customize -> Boot Options -> Basic Boot Options
Customize -> Boot Options -> Kext Dev Mode
Customize -> Boot Options -> Use KernelCache
Customize -> System Definition -> Mac Pro -> Mac Pro 3,1
Customize -> Themes -> tonymacx86 Black

UserDSDT

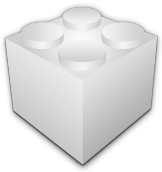
UserDSDT is for those desktop systems who have a pre-edited DSDT for their motherboard. UserDSDT pre-configured choices:

Drivers -> Disk -> 3rd Party SATA
Drivers -> Misc -> FakeSMC v6.18.1394
Bootloaders -> Chimera v4.1.0
Customize -> Boot Options -> Basic Boot Options
Customize -> Boot Options -> Generate CPU States
Customize -> Boot Options -> Hibernate Mode – Desktop
Customize -> Boot Options -> Kext Dev Mode
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 v6.18.1394
Bootloaders -> Chimera v4.1.0
Customize -> Boot Options -> Basic Boot Options
Customize -> Boot Options -> Generate CPU States
Customize -> Boot Options -> Hibernate Mode - Desktop
Customize -> Boot Options -> Use KernelCache
Customize -> Boot Options -> Kext Dev Mode
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.

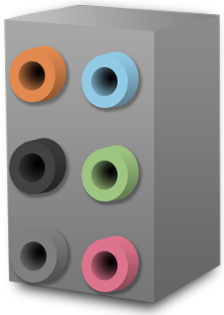
Realtek ALC8xx

Enables audio for motherboards featuring the Realtek ALC269, ALC283, ALC887/888b, ALC888, ALC885/889a, ALC889, ALC892, ALC898 or ALC1150 high-definition audio codecs.

Replaces /System/Library/Extensions/AppleHDA.kext with a patched AppleHDA.kext edited by toleda to enable full functionality for the Realtek ALC269, ALC283, 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.

Optional HDAEnabler

Optional kext-based audio injection method. Changes HDAEnabler to No in /Extra/org.chameleon.Boot.plist if found. Choose Audio ID: 1 or Audio ID: 2.

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 / 2.8.6 / 2.8.7

Also installs VoodooHDA.prefPane in /System/Library/PreferencePanes. 2.8.2 and later 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.

Intel Generic AHCI SATA

Provides support for the Intel 9 Series, X79 and X99 SATA controllers which are displayed as Generic AHCI Controller in System Profiler. All drives connected to these ports show on the desktop as Internal. Installs AHCI_Intel_Generic_SATA.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

10.10.0 - 10.10.2 TRIM Patch

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

10.10.3 TRIM Patch

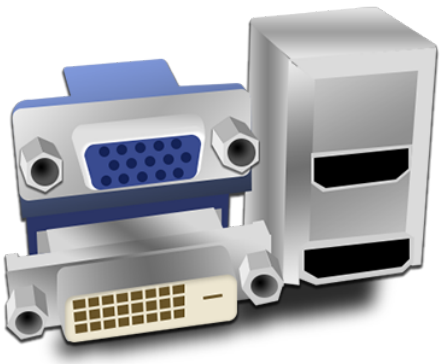
Patches /System/Library/Extensions/IOAHCIFamily.kext/Contents/PlugIns/IOAHCIBlockStorage.kext to enable TRIM on non-Apple SSD drives.

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. 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 ACPISensors.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 Laptop keyboards, mice and trackpads. Installs Rehabman's branch of VoodooPS2Controller.kext in /System/Library/Extensions. Also installs /usr/bin/VoodooPS2Daemon and /Library/LaunchDaemons/org.rehabman.voodoo.driver.Daemon.plist

USB 3.0 – Universal
RehabMan's branch of Zenith432's GenericUSBXHCI.kext to enable USB 3.0. Installs GenericUSBXHCI.kext in /System/Library/Extensions/. 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.

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.

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.

AtherosE2200Ethernet

Mieze's driver based on Johannes Berg's alx driver and RealtekRTL811 for the Killer E2200 controller. Installs AtherosE2200Ethernet in /System/Library/Extensions.

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.

AppleIGB

Enables Intel 82575, 82576, 82580, dh89xxcc, i350, i210 and i211 ethernet controllers. hnak's port of the Intel igb ethernet driver for Linux. Installs AppleIGB.kext in System/Library/Extensions.

Realtek

RealtekRTL81xx

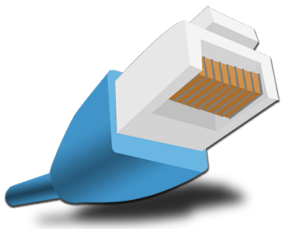
Enables Realtek 81xx Ethernet controllers. Lnx2Mac's port of the Linux RTL81xx driver merged into Chuck Fry's "Chucko R1000SL" kext. Installs RealtekRTL81xx.kext in /System/Library/Extensions.

RealtekRTL8111

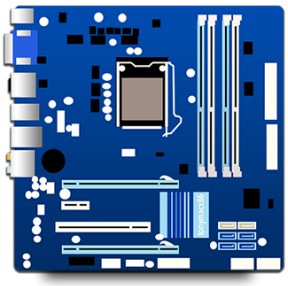
Mieze's port of the Realtek Linux v8.037.00 driver. Installs RealtekRTL8111.kext in /System/Library/Extensions. Project page: https://github.com/Mieze/RTL8111_driver_for_OS_X

Realtek – AppleRTL8169Ethernet

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



System



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.

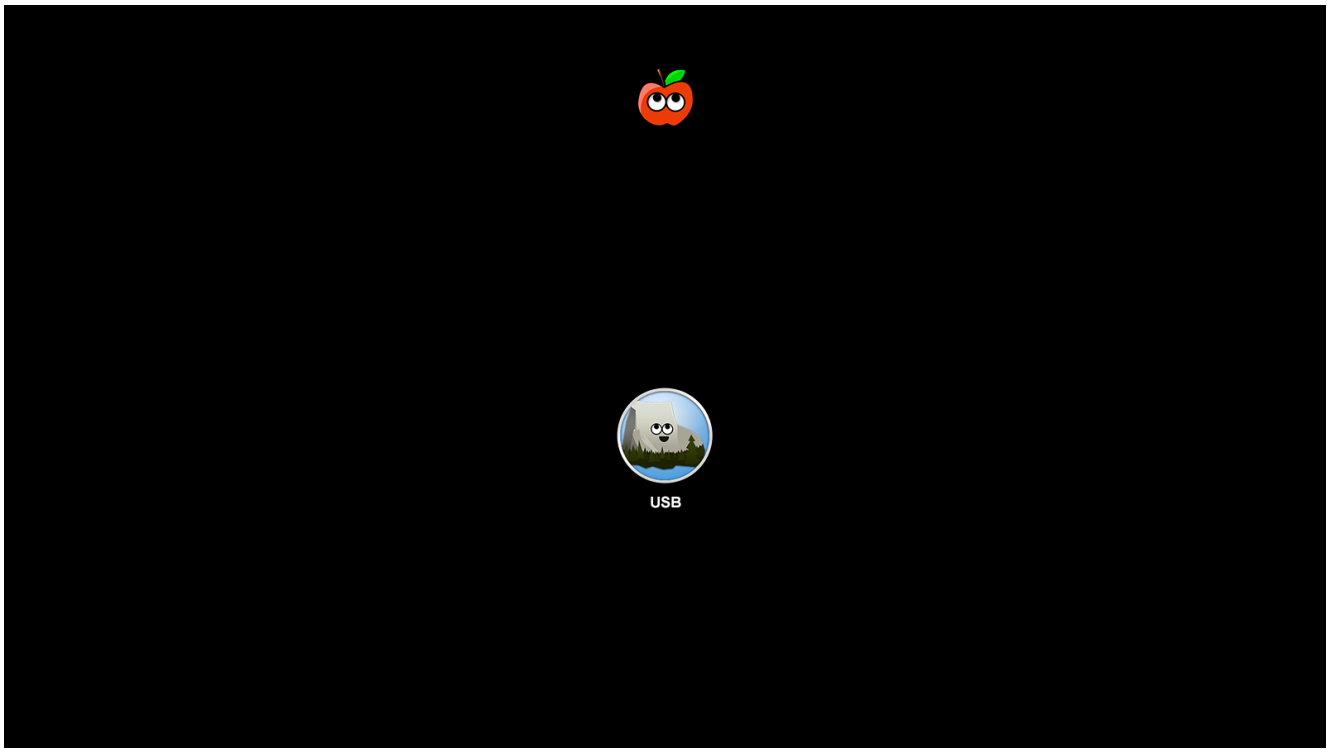
AppleRTC Patch for CMOS Reset
Patches /System/Library/Extensions/AppleRTC.kext/ to prevent CMOS resets.

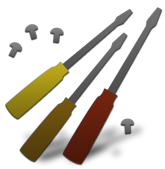
10.9.5 AppleACPIPlatform Rollback
Required for [PCI configuration begin] halt on 10.10 on some AWARD BIOS systems, including Gigabyte 6 series and x58. Replaces the current AppleACPIPlatform.kext in /System/Library/Extensions with the 10.9.5 version.

Bootloaders

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

Chimera v4.1.0
MacMan's branch of Chameleon 2.2.





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

Kext Dev Mode
Adds kext-dev-mode=1 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

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.

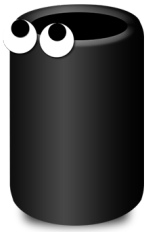
Sandy Bridge Core i5
Optimized SSDT supporting Sandy Bridge Core i5 CPUs with a maximum Turbo Boost clock of 3.8 GHz. Installs SSDT.aml in /Extra.

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.

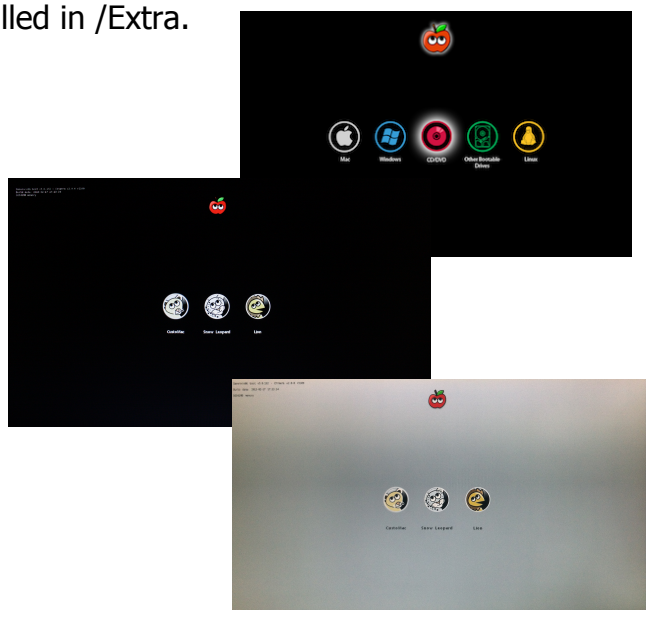
Mac Pro
These pre-edited smbios.plist files will identify your system as a Mac Pro.

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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Please consider a contribution to support further MultiBeast development. Thanks in advance!