

Asus x99 Clover EFI Install Guide

My personal setup

Motherboard: Asus X99-E WS

CPU: Intel 5960X

RAM: 64GB DDR4 GSkill 2800 RAM

GPU: Titan X GPU

Harddrive (NVME): Intel 750 NVME 1.2TB PCIE SSD

Harddrive (SATA): 3x Samsung 850 Pro 1TB SSD

Harddrive (M.2): SM951 m.2 SSD 512gb <- my install drive

Guide works on all x99 ASUS boards.

Other boards may work, but have not been verified to me.

Files are meant for 8 core processors such as 5960x or Xeon processor.

A VoodooTSCSync.kext modification method for other core processors is mentioned in the guide.

Never assume you are reading the codes correctly as you could have mistakes from wrapping.

Always copy into Word and make the smallest text size that allows you to see the full code on a single line.

When in doubt, use REPAIR DISK PERMISSIONS. Never skip. Its #1 cause of problems, from people skipping this easy step.

KextWizard is the best tool for this.

Useful / Needed Programs

Program 1: UniBeast

Program 2: MultiBeast

Program 3: Clover

Program 3: Clover Configurator

Program 4: KextWizard

Program 5: EFIMounter-v2

Program 6: AGDPfix

Program 7: DPCIManager

Program 8: IORegistryExplorer

Program 9: OSX Yosemite 10.10.5 Install downloaded from App Store into your apps folder



4 USB's are Needed

USB 1: UniBeast Installer USB named "USB" <- Used in Section 2

USB 2: Kext Copy Folder named "COPY" <- Used in Section 4

USB 3: Clover Installer USB named "Clover" <- Used in Section 5

USB 4: EFI folder for clover-post-install USB named "EFI-post-install" <- Used in Section 6 (If OS X says too long make it something shorter you like, its not important). You will notice I made an additional config.plist file available for download.

Note on USB 4: If you are using a system other than 5960x and Titan X you may need to adjust things like nvda_drv=1 in the config.plist to fit your respective graphics card. You might also want to change your resolution to your name resolution, since the file is set for mine. For other than 5960x you need to edit all "VoodooTSCSync.kext" files to match your processor number...

ie 4 core = 7 and 8 core = 15

Its [(no. of cores) x (2) - 1]

You do this by...

Step 1: Right click on VoodooTSCSync.kext

Step 2: Select Show Package Contents

Step 3: Go to Contents folder and Right Click on Info.plist and open with Xcode

Step 4: Go to...

- > IOKitPersonalities
- > VoodooTSCSync
- > IOPropertyMatch
- > IPCPUNumber (Make value that corresponds to your core number below)

16 core = 31

12 core = 23

8 core = 15

6 core = 11

4 core = 7

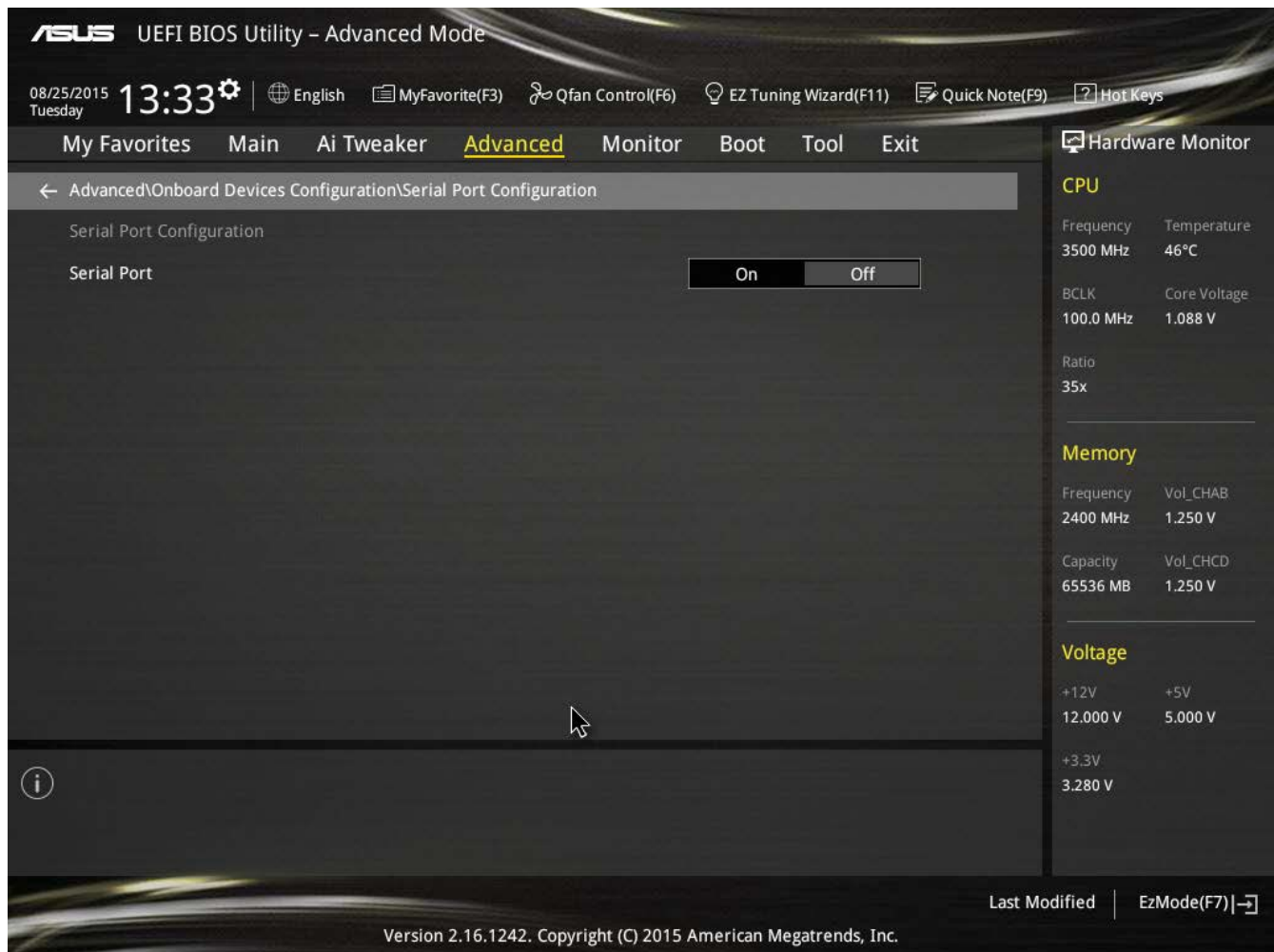
Info.plist		
Info.plist > No Selection		
Key	Type	Value
▼ Information Property List	Dictionary	(20 items)
BuildMachineOSBuild	String	11D50
Localization native development r...	String	English
Executable file	String	VoodooTSCSync
Get Info string	String	© 2009 Cosmo1t
Bundle identifier	String	org.voodoo.driver.VoodooTSCSync
InfoDictionary version	String	6.0
Bundle name	String	VoodooTSCSync
Bundle OS Type code	String	KEXT
Bundle creator OS Type code	String	????
Bundle version	String	1.1
DTCompiler	String	
DTPlatformBuild	String	4E109
DTPlatformVersion	String	GM
DTSDKBuild	String	10K549
DTSDKName	String	macosx10.6
DTXcode	String	0430
DTXcodeBuild	String	4E109
▼ IOKitPersonalities	Dictionary	(1 item)
▼ VoodooTSCSync	Dictionary	(5 items)
CFBundleIdentifier	String	org.voodoo.driver.VoodooTSCSync
IOClass	String	org_voodoo_driver_VoodooTSCSync
IOMatchCategory	String	VoodooTSCSync
▼ IOPropertyMatch	Dictionary	(1 item)
IOCPUNumber	Number	15
IOProviderClass	String	AppleACPICPU
► OSBundleLibraries	Dictionary	(3 items)
OSBundleRequired	String	Root

Section 1: Set your Bios in X99-E WS

Step 1: Set a Default Configuration

Step 2: Turn off Serialport

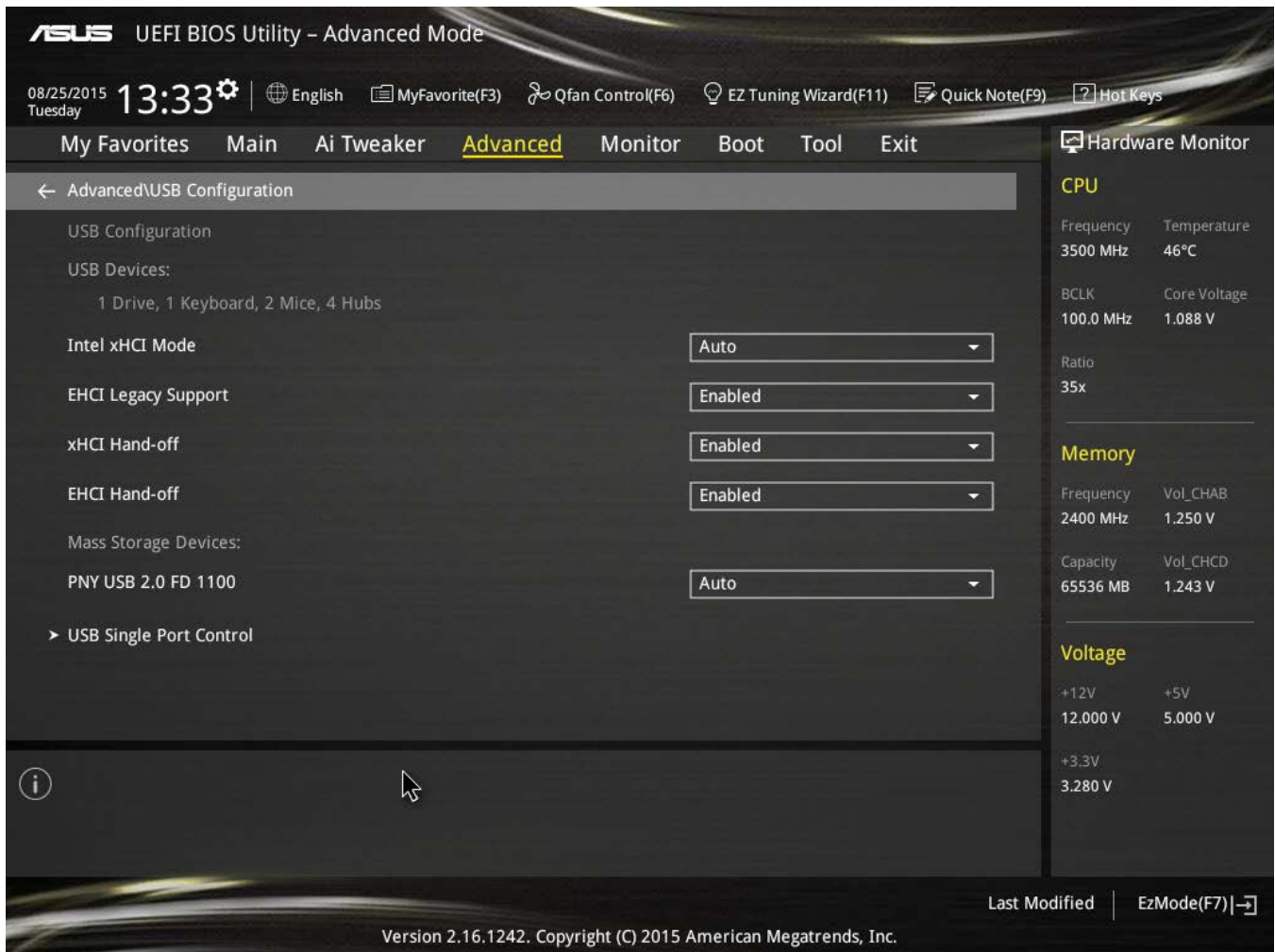
Advanced > Onboard Devices Configuration > Serialport = Disable



Step 3: Change USB Settings

Advanced > USB Configuration > ...

Intel xHCI Mode = Auto
xHCI Legacy Support = Enabled
EHCI Legacy Support = Enabled
xHCI Hand-off = Enabled
EHCI Hand-off = Enabled



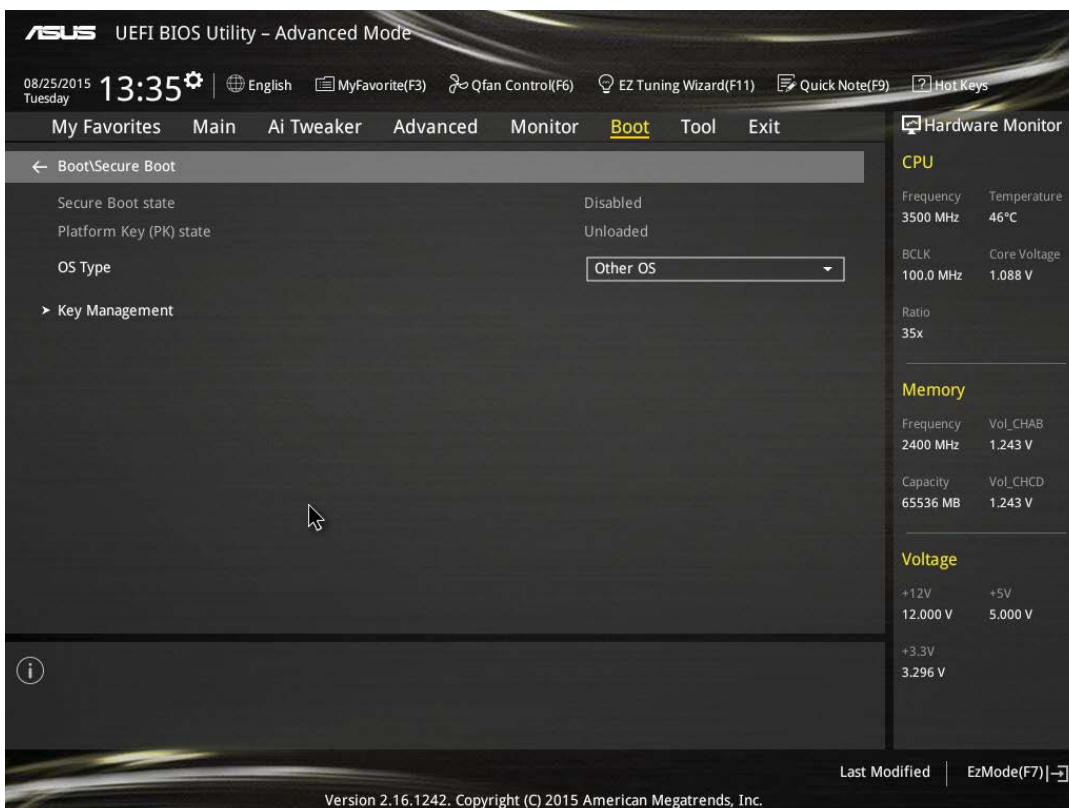
Step 4: Change BOOT Settings

BOOT > ...

Fast Boot = Disabled

Secure Boot = Other OS

Key Management = Clear Secure Boot Keys



Section 2: Prepare USB drive for UniBeast

Step 1: Open...

/Applications/Utilities/Disk Utility

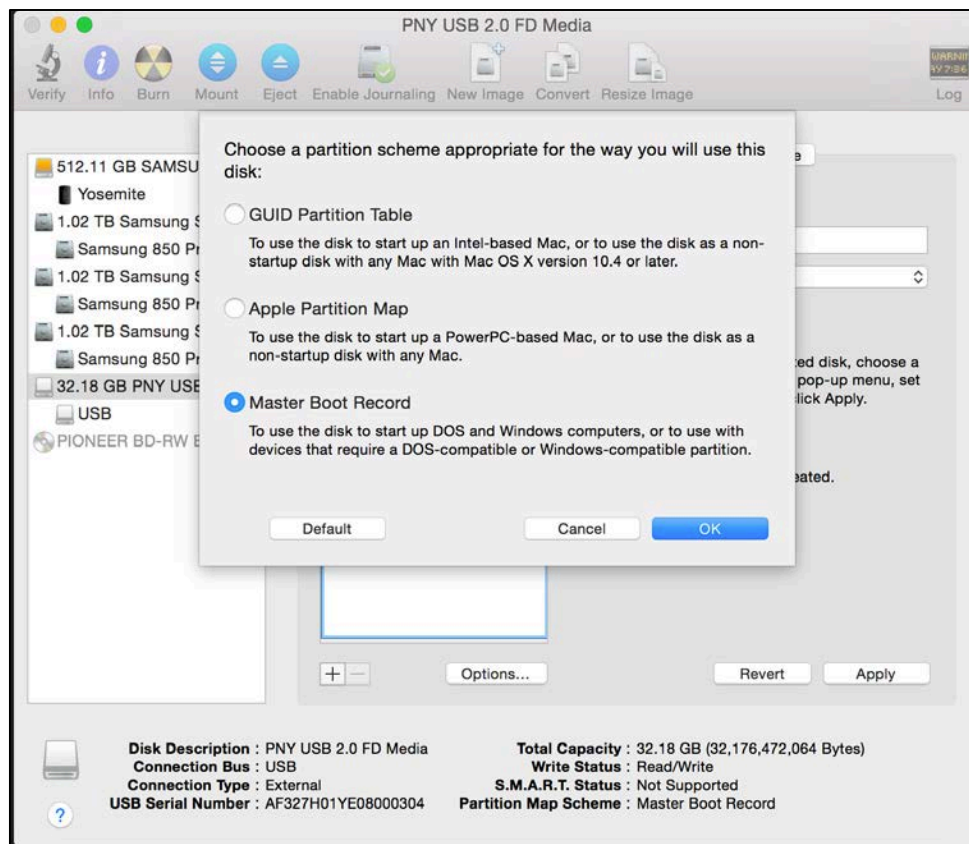
Step 2: Highlight the USB drive in left column

Step 3: Click on the Partition tab

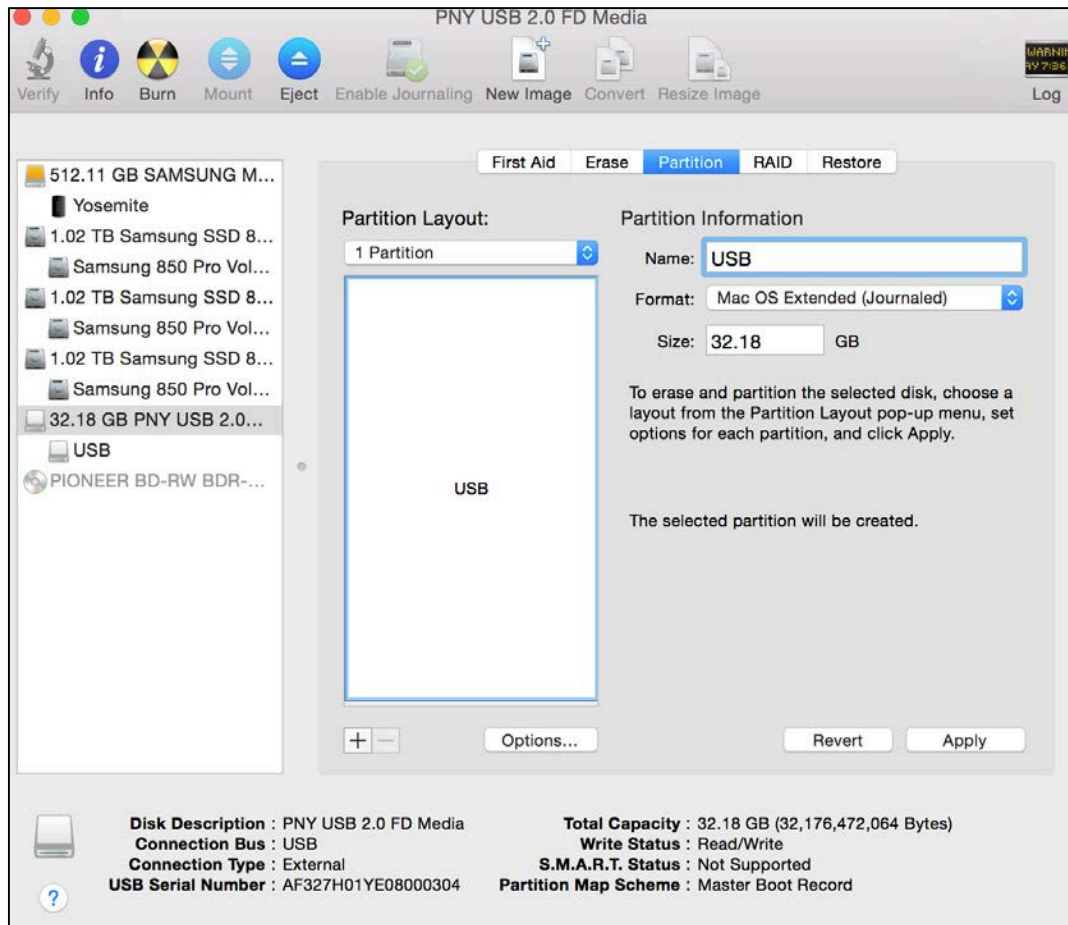
Step 4: Click Current and choose 1 Partition

Step 5: Click Options...

Step 6: Choose MBR Master boot loader



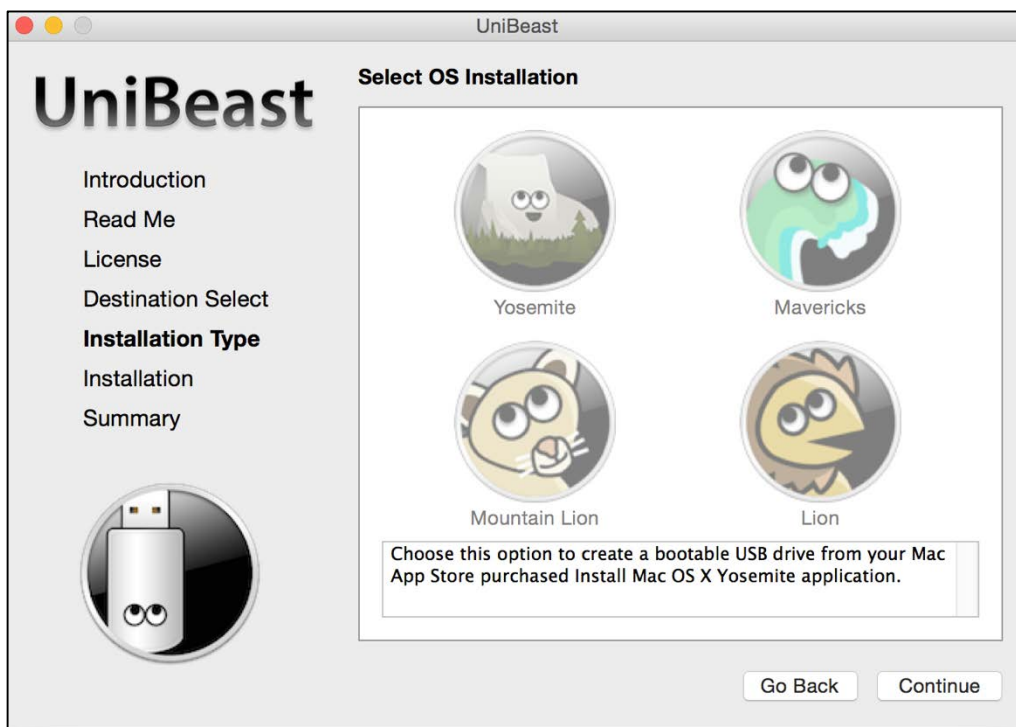
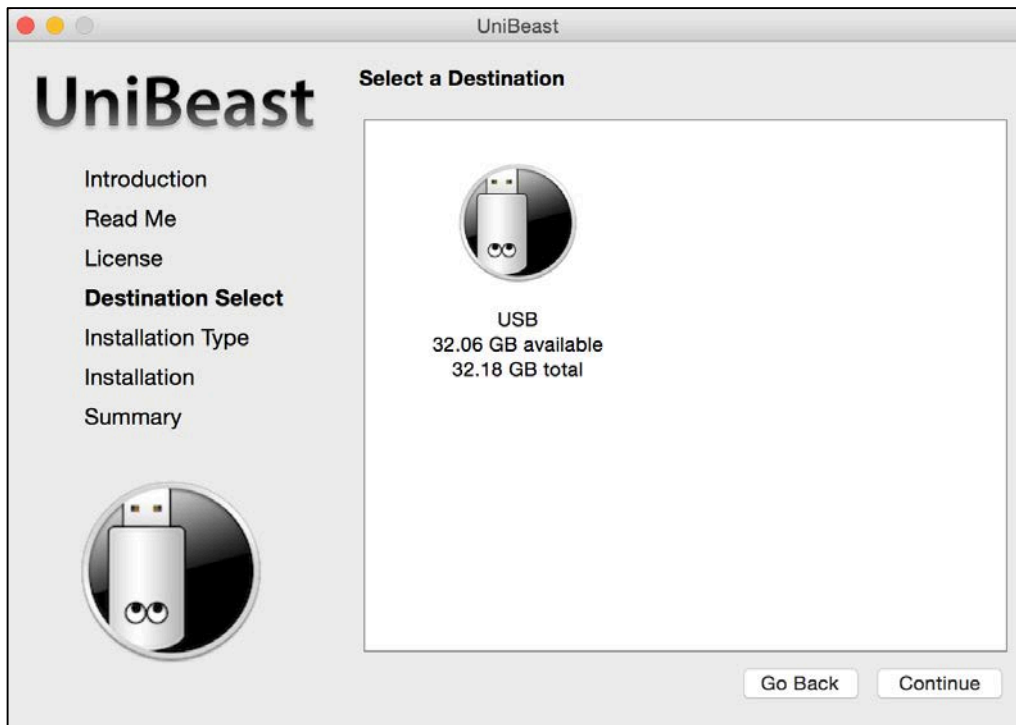
Step 7: Under Name: type "USB"



Step 8: Under Format: choose Mac OS Extended (Journaled)

Step 9: Click Apply then Partition

Step 10: Open UniBeast to create the bootable drive on “USB”



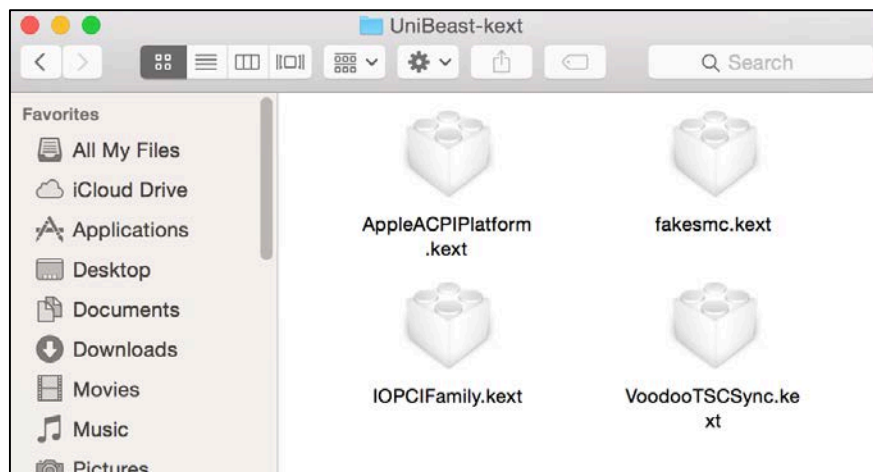
Step 11: Click change install directory to “USB”. Do not select legacy support or laptop mode.

Step 12: Run UniBeast to create bootable USB

Section 3: Copy kexts to UniBeast and Patch Kernel

Step 1: Gather the attached kext files in UniBeast-kext folder. These are pre-configured kext files for the 8 cores of 5960x.

- 1) AppleACPIPlatform.kext
- 2) fakesmc.kext
- 3) IOPCIFamily.kext
- 4) VoodooTSCSync.kext <- requires modification if your processor is not 8 core



Step 2: In terminal command make all hidden folders visible on "USB".

```
defaults write com.apple.finder AppleShowAllFiles TRUE;killall Finder
```

Note- to navigate inside to folders you need to right click and select "open as new tab"

Step 3: Navigate to...

/USB/Extras/Extensions folder

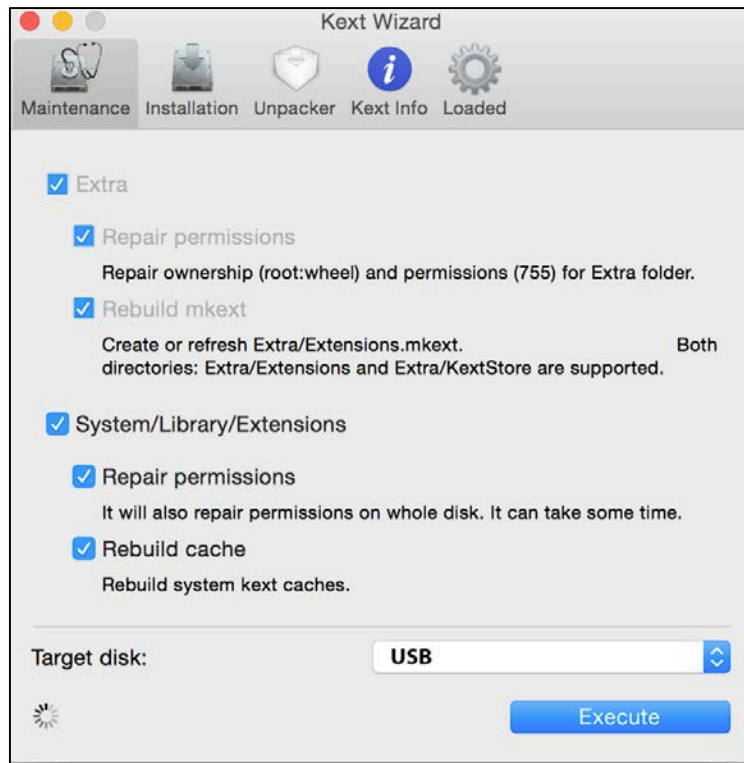
Step 4: Paste the 4 kext files. Select "yes" to overwrite if necessary. If you can't overwrite them, right click to delete.

Step 5: Navigate to /USB/System/Library/Extensions folder and paste the 4 kext files. Select "yes" to overwrite if necessary. If you can't overwrite them, right click to delete.

Step 6: Open terminal and Patch kernel.

```
sudo perl -pi -  
e 's|\\x74\\x11\\x83\\xF8\\x3C|\\x74\\x11\\x83\\xF8\\x3F|g' /Volumes/USB/System/Library/Kernels/kernel
```

Step 7: Open KextWizard. Select your USB drive named USB. Checkmark the 6 boxes and hit execute to “verify disk permissions”.



Step 8: In terminal command hide all hidden folders on USB.

```
defaults write com.apple.finder AppleShowAllFiles FALSE;killall Finder
```

Section 4: Create USB named "COPY" with 4 kext files

Step 1: Open...

/Applications/Utilities/Disk Utility

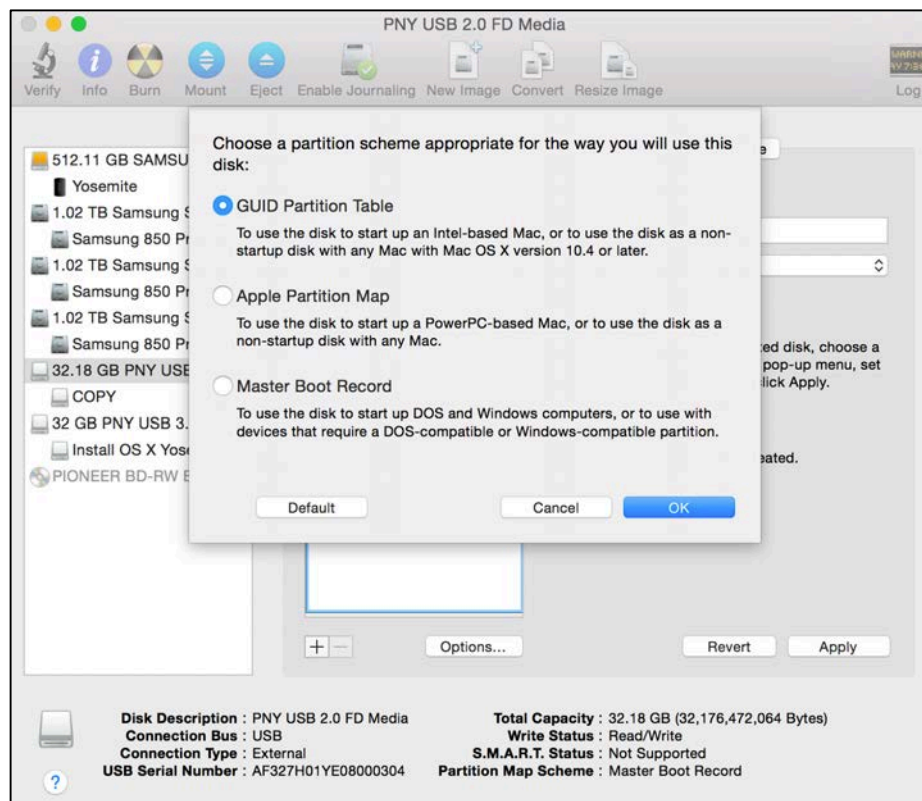
Step 2: Highlight the USB drive

Step 3: Click on the Partition tab

Step 4: Click Current and choose 1 Partition

Step 5: Click Options...

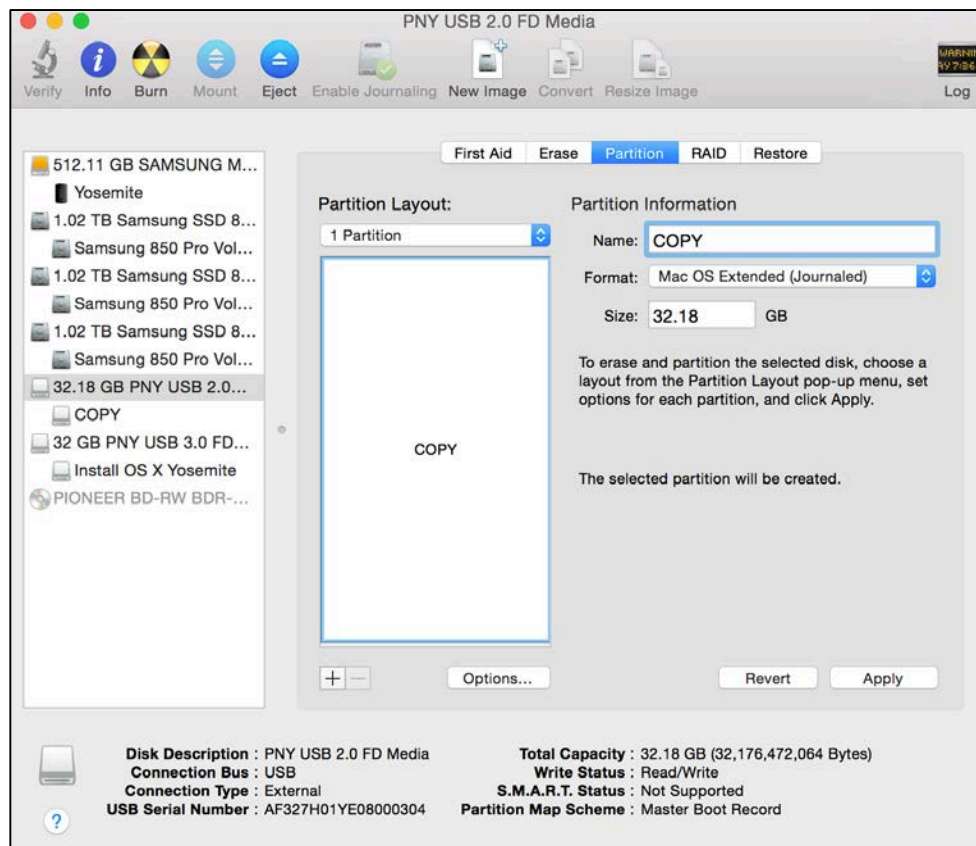
Step 6: Choose GUID Partition Table



Step 7: Under Name: type "COPY"

Step 8: Under Format: choose Mac OS Extended (Journaled)

Step 9: Click Apply then Partition



Step 10: Exit Disk Utility

Step 11: In "COPY" USB add new folder and title it "kexts"

Step 12: Copy and paste the 4 kext files from UniBeast-kexts folder

- 1) AppleACPIPlatform.kext
- 2) fakesmc.kext
- 3) IOPCIFamily.kext
- 4) VoodooTSCSync.kext <- requires modification if your processor is not 8 core

Section 5: Create CLOVER boot USB

Step 1: Open...

/Applications/Utilities/Disk Utility

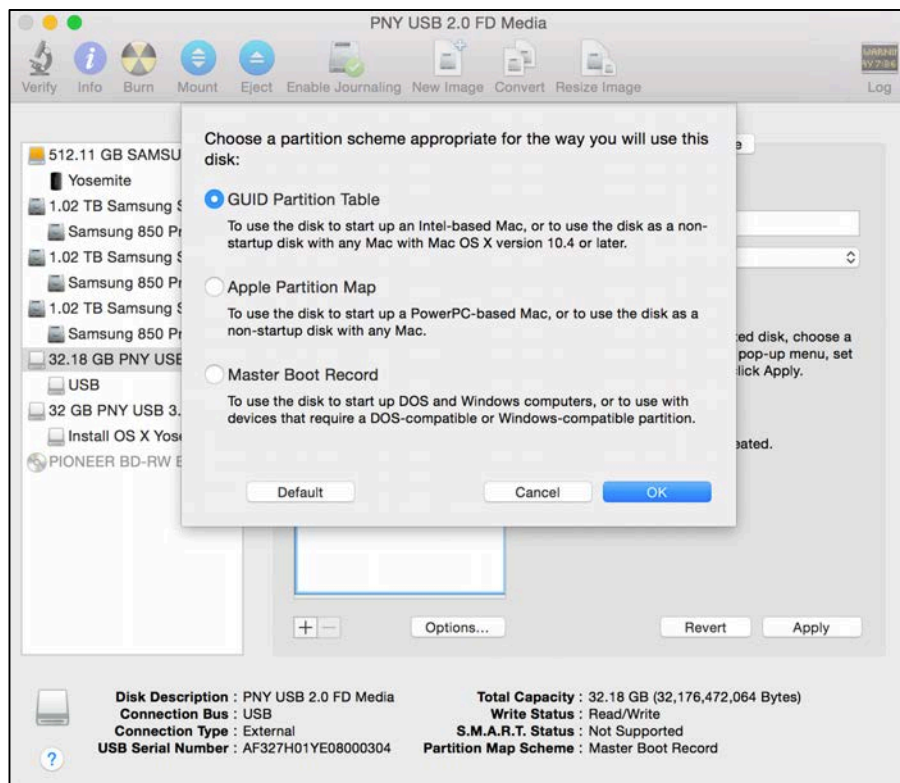
Step 2: Highlight the USB drive in left column

Step 3: Click on the Partition tab

Step 4: Click Current and choose 1 Partition

Step 5: Click Options...

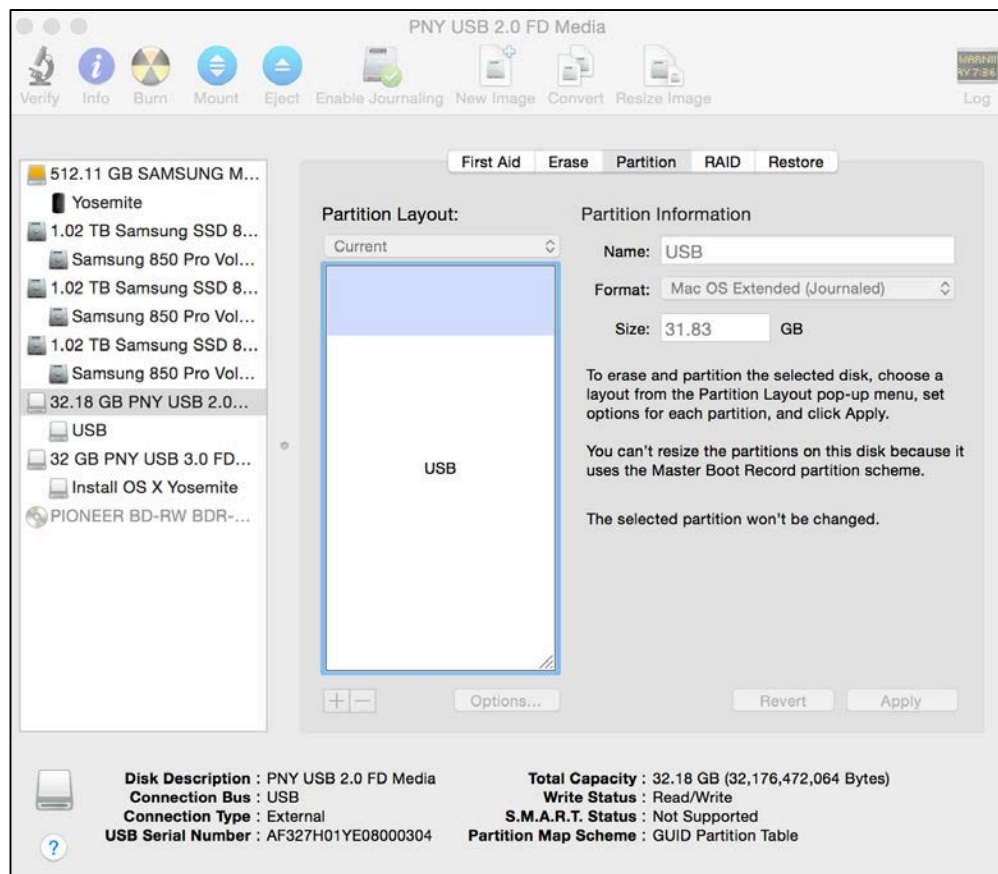
Step 6: Choose GUID Partition Table



Step 7: Under Name: type USB (Installer renames it later automatically)

Step 8: Under Format: choose Mac OS Extended (Journaled)

Step 9: Click Apply then Partition



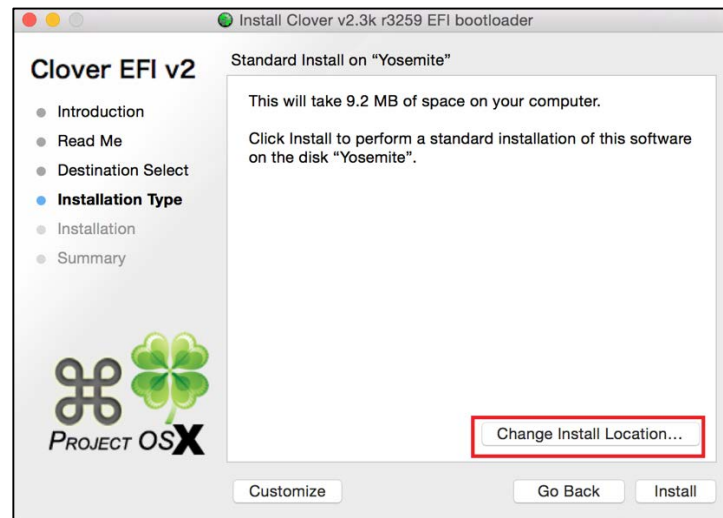
Step 10: Open /Applications/Utilities/Terminal

Step 11: Type the following, enter password and hit enter. This command completely erases the USB, then creates native OS X installer media from the Install OS X Yosemite Application.

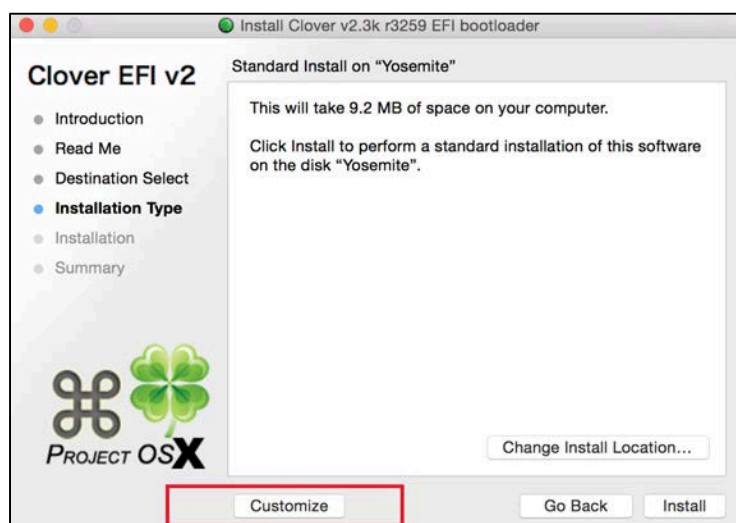
```
sudo /Applications/Install\ OS\ X\ Yosemite.app/Contents/Resources/createinstallmedia --  
volume /Volumes/USB --applicationpath /Applications/Install\ OS\ X\ Yosemite.app --no interaction
```

Step 12: Open Clover

Step 13: In Clover, Change Install Location to your USB - USB should automatically be named "Install OS X Yosemite" from previous step

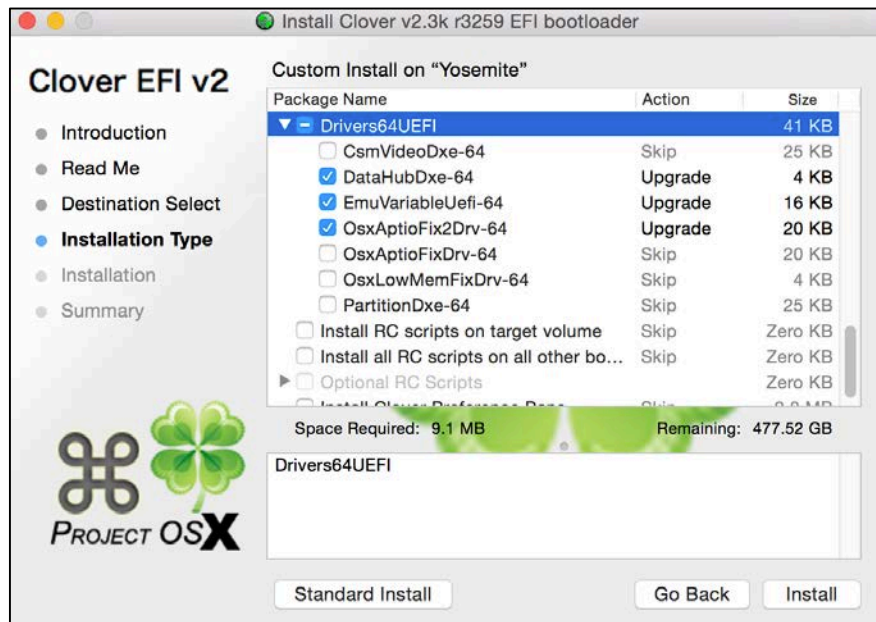
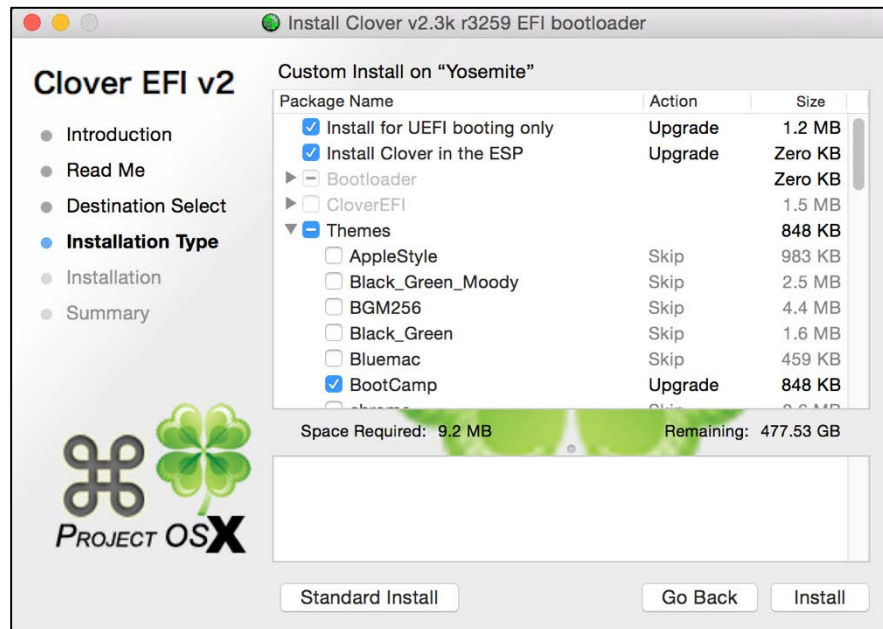


Step 14: Click on Customize Button



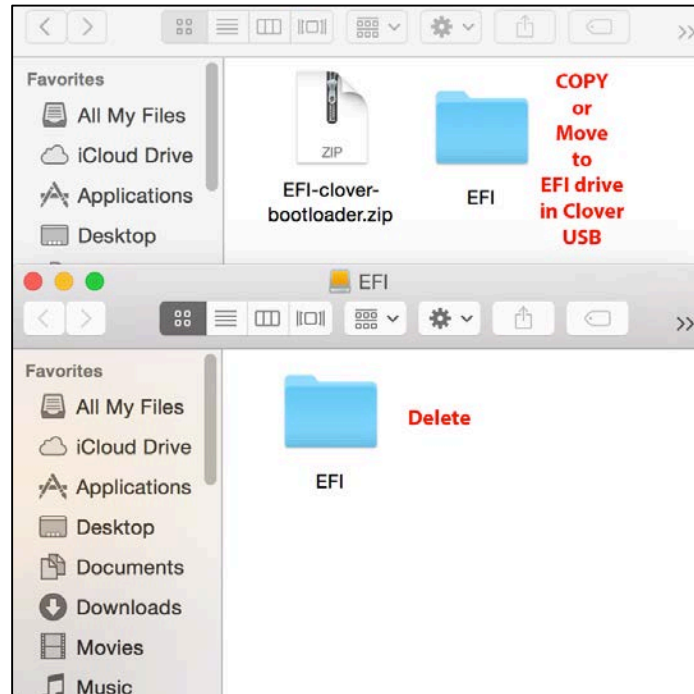
Step 15: Select the Following

- (A)** Install for UEFI booting only
- (B)** Install Clover in the ESP
- (C)** Themes
 - BootCamp
- (D)** Drivers64UEFI
 - DataHubDxe-64
 - EmuVariableUefi-64
 - OsxAptioFixDrv-64



Step 16: Click "Install", You have now made your Clover Bootloader drive

Step 17: Copy "EFI" folder from EFI-clover-bootloader.zip and paste into EFI partition of Clover USB you just created that is named "*Install OS X Yosemite*"



- Select yes to overwrite previous EFI folder
- **Note:** If you did not see EFI partition above, use EFI Mounter-v2 as an easy tool to mount it.
- If you are unsure of which UEFI partition to mount go into terminal and type...

[diskutil list](#)

- Press enter and identify the EFI under your USB, you are completely done making the Clover boot USB

Section 6: Create USB named "EFI-post-install"

Step 1: Open...

/Applications/Utilities/Disk Utility

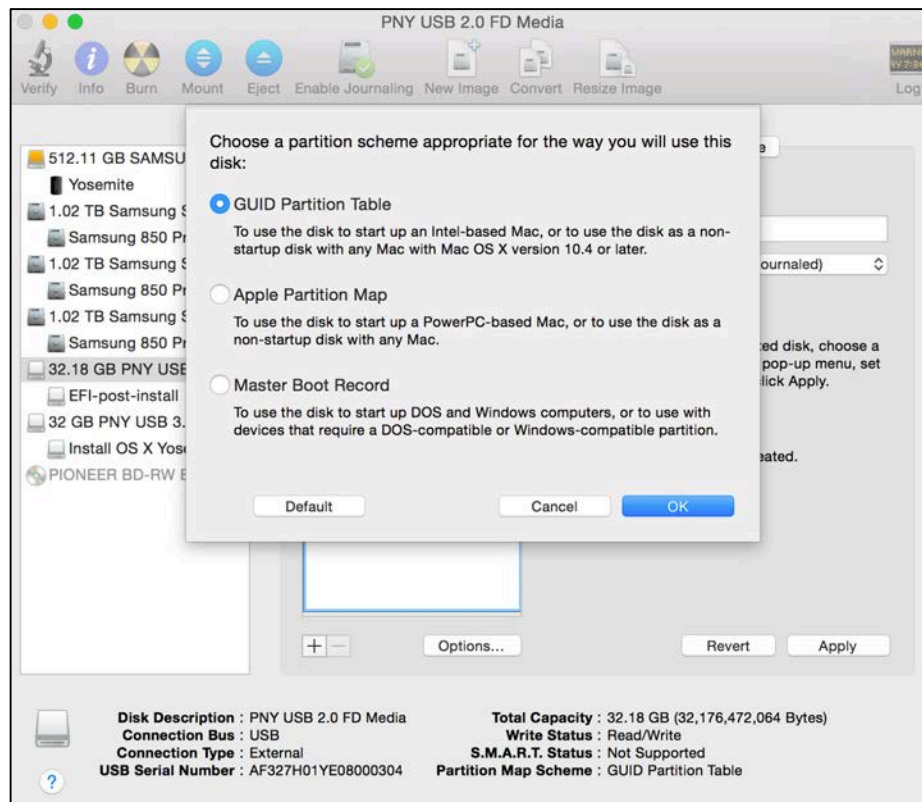
Step 2: Highlight the USB drive in left column

Step 3: Click on the Partition tab

Step 4: Click Current and choose 1 Partition

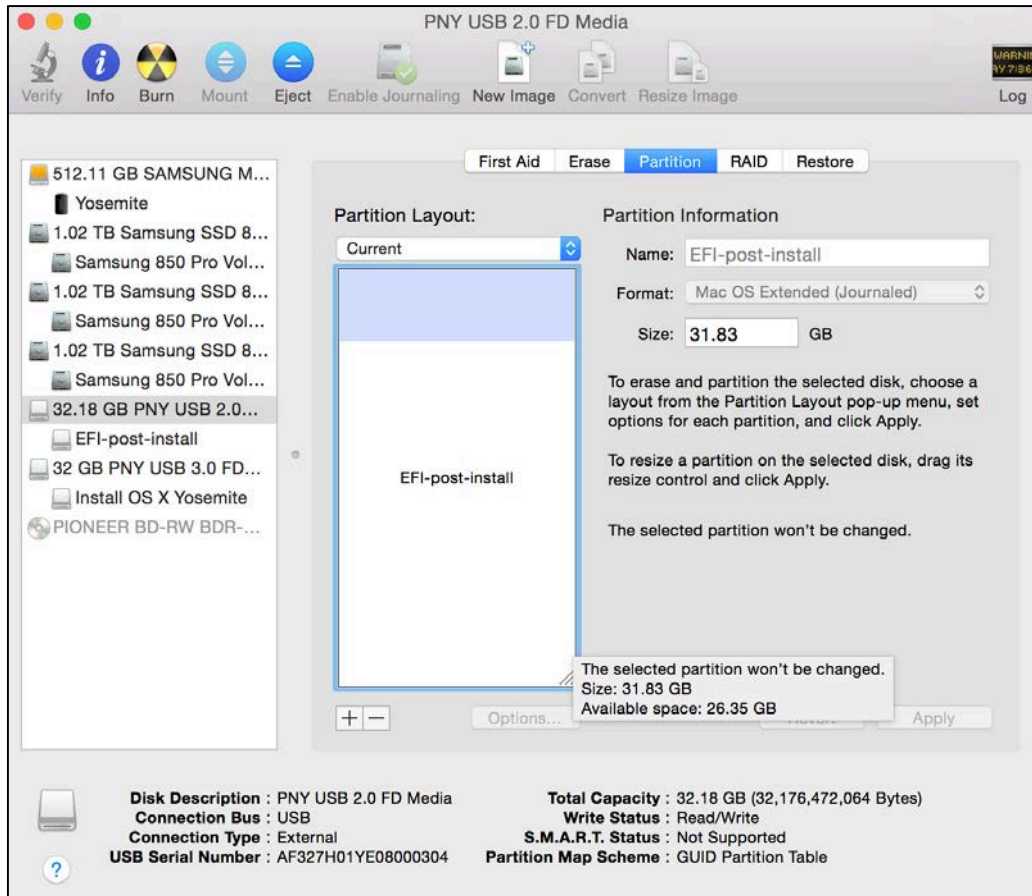
Step 5: Click Options...

Step 6: Choose GUID Partition Table



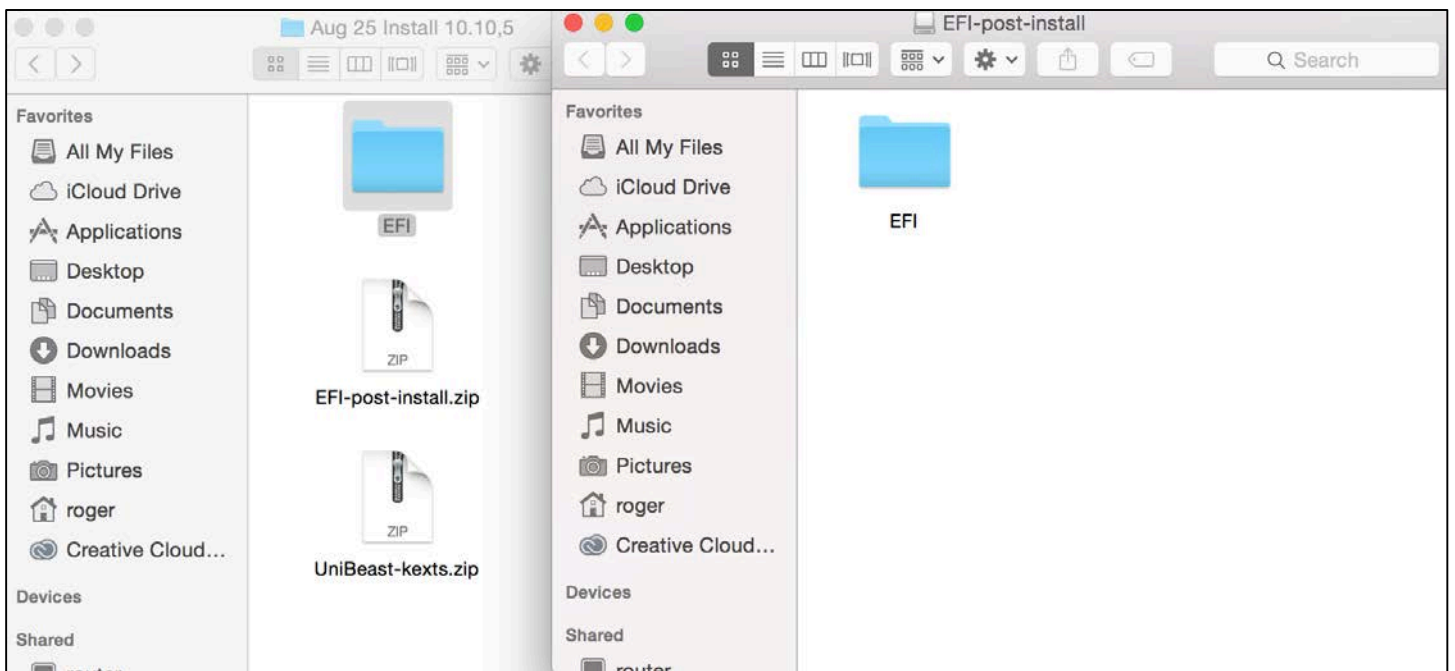
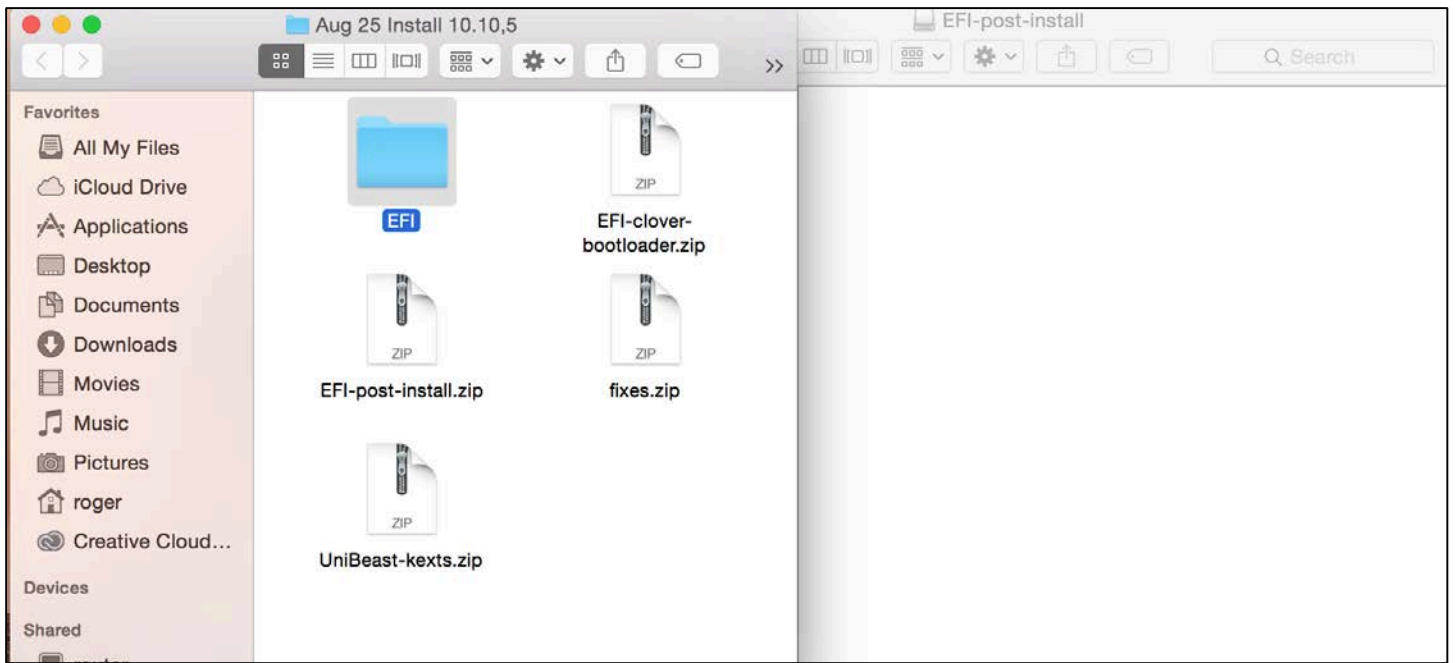
Step 7: Under Name: type "EFI-post-install"

Step 8: Under Format: choose Mac OS Extended (Journaled)



Step 9: Click Apply then Partition

Step 10: Unzip “EFI-post-install.zip” and put its EFI folder on this USB



Section 7: Install Yosemite with UniBeast

Step 1: Insert the UniBeast USB into the PC you will install to and go to BIOS

Step 2: Boot to the USB

Step 3: Immediately type in this Bootflags code when Chimera screen comes up

```
-x -f -v npci=0x2000 nv_disable=1 kext-dev-mode=1
```



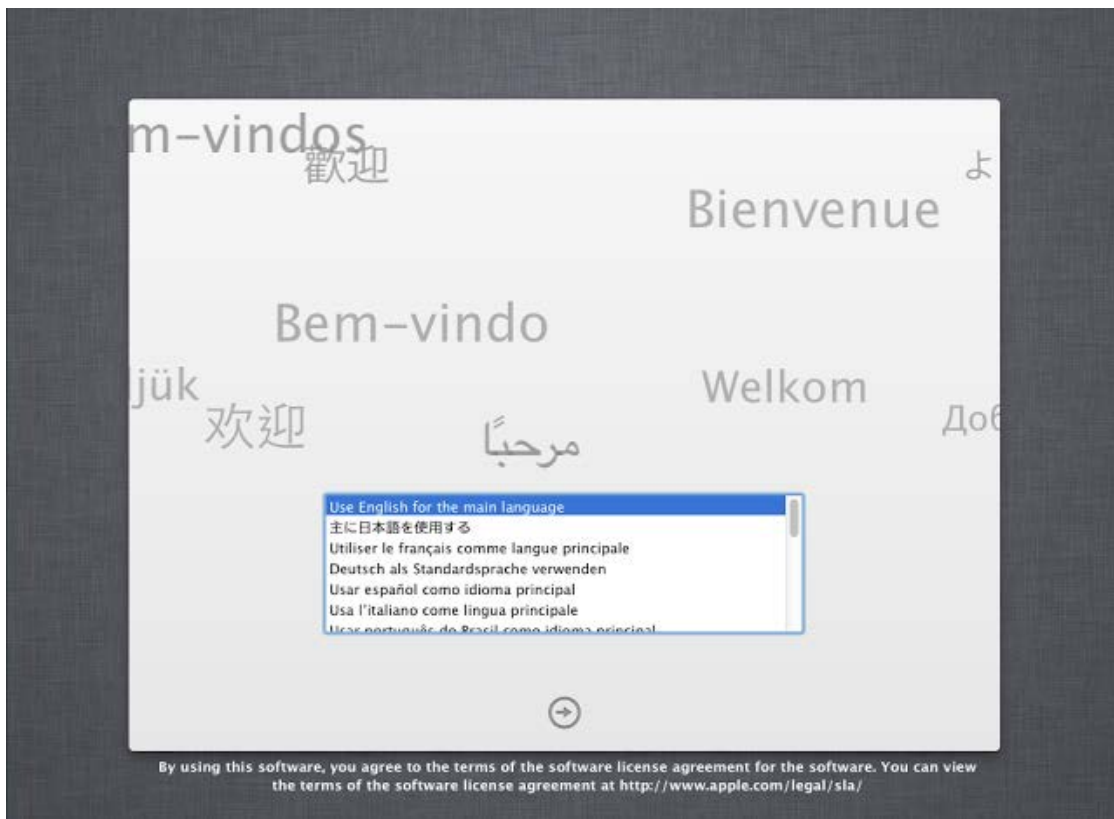
Step 4: Press Enter

Step 5: It will go through Verbose screen and load to MacOSx installer

```
npvhash=4095
hi mem tramps at 0xffe00000
PAE enabled
64 bit mode enabled
rtclock_init: Taking bus ratio path 4 (Intel / Apple)
TSC: Verification of clock speed PASSED.
TSC: Frequency = 2738.949560MHz, FSB frequency = 684.737390MHz, bus ratio = 4
Darwin Kernel Version 9.5.0: Sat Dec 6 19:39:54 IST 2008; Voodoo; Release 1.0 :xnu-1228.7.58/BUILD/obj/RELEASE_1386
standard timeslicing quantum is 10000 us
vm_page_bootstrap: 384097 free pages and 9119 wired pages
mig_table_max_displ = 79
ACPI CA 20051117 [debug level=0 layer=0]
AppleACPICPU: ProcessorApicId=0 LocalApicId=0 Enabled
Loading security extension com.apple.security.TMSafetyNet
calling mpo_policy_init for TMSafetyNet
Security policy loaded: Safety net for Time Machine (TMSafetyNet)
Loading security extension com.apple.nke.applicationfirewall
Loading security extension com.apple.security.seatbelt
calling mpo_policy_init for mb
Seatbelt MACF policy initialized
Security policy loaded: Seatbelt Policy (mb)
Copyright (c) 1982, 1986, 1989, 1991, 1993
The Regents of the University of California. All rights reserved.

MAC Framework successfully initialized
using 7864 buffer headers and 4096 cluster IO buffer headers
IOAPIC: Version 0x11 Vectors 0:23
ACPI: System State [S0 S5] (S0)
ACPI: Button driver prevents system sleep
ACPI: Button driver prevents system sleep
USBF: 0.871 AppleUSB0HC1[0x3155000]::CheckSleepCapability - controller will be unloaded across sleep
SATA WARNING: Checksum Cookie not valid
USBF: 5.989 AppleUSB0HC1[0x3155000]::CheckSleepCapability - controller will be unloaded across sleep
```

Step 6: Select Language



Step 7: Open...

/Applications/Utilities/Disk Utility

Step 8: Highlight the preferred install drive in left column

Step 9: Click on the Partition tab

Step 10: Click Current and choose 1 Partition

Step 11: Click Options...

Step 12: Choose GUID Partition Table

Step 13: Under Name: type "Yosemite"

Step 14: Under Format: choose Mac OS Extended (Journaled)

Step 15: Click Apply then Partition

Step 16: Exit Disk Utility and Complete the Installation of Yosemite

Step 17: Restart the PC reboot into your USB. The chimera program will show only USB if you installed on an m.2 or NVME drive that requires UEFI support. If you installed on a normal SSD or HDD it will also show "Yosemite". Select "USB".



Step 18: You will boot back to the setup configuration screen of Yosemite by clicking on "USB"

```
-x -f -v npci=0x2000 nv_disable=1 kext-dev-mode=1
```

Step 19: At OSx installer screen go to Open /Applications/Utilities/Terminal

Step 20: Run the following commands in terminal command to check that they are present

```
rmdir /Volumes/Yosemite/System/Library/Extensions/AppleACPIPlatform.kext
```

then

```
rmdir /Volumes/Yosemite/System/Library/Extensions/IOPCIFamily.kext
```

Step 21: Copy your kexts to the Yosemite hard drive

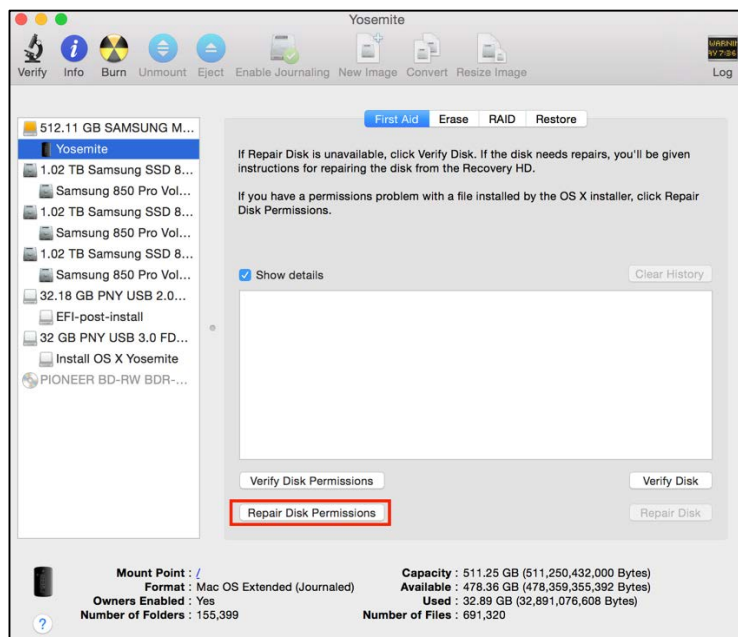
```
cp -R /Volumes/COPY/kexts/. /Volumes/Yosemite/System/Library/Extensions/
```

Step 22: Copy your patched kernel to the Yosemite hard drive.

```
cp -R /Volumes/USB/System/Library/Kernels/kernel /Volumes/Yosemite/System/Library/Kernels/kernel
```

Step 23: Exit Terminal.

Step 24: Go to Disk Utility and select the Yosemite hard drive and click “*Repair Disk Permissions*”



Step 25: Restart the Computer through shutdown.

If you're one of the cool kids you are looking for UEFI support on an m.2 or PCI-E drive and can't see the "Yosemite" install selection, only USB.

Section 8: UEFI Support and Booting with CLOVER

Step 1: Insert the Clover boot USB and open bios in the install PC

Step 2: Boot to UEFI:(name of your USB)

Step 3: At Bootloader screen look for option like "Open OS X on Yosemite". Hit enter

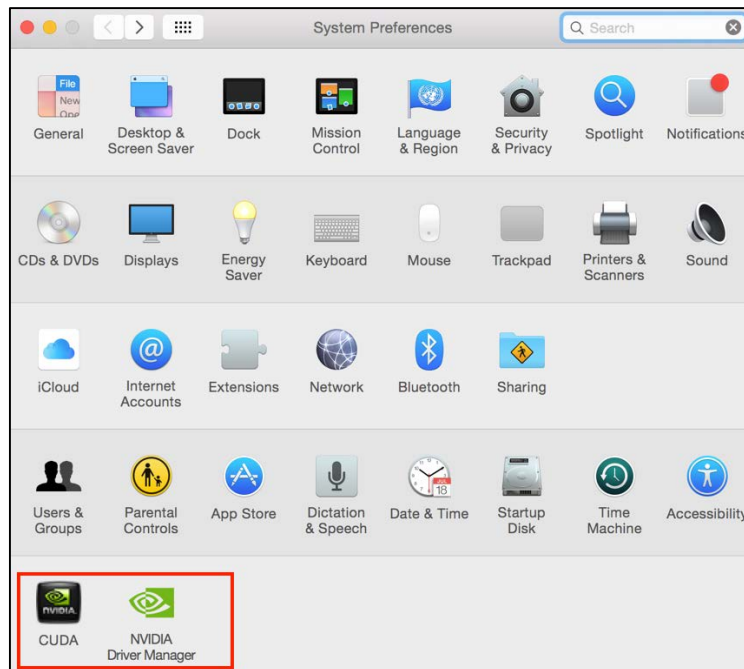
- **Note** I preloaded "-v npci=0x2000 kext-dev-mode=1 nv_disable=1" for you so you don't need to type. If it fails (it shouldn't) try adding "-x -f" in the bootflags



Step 4: It will boot into Yosemite, albeit sluggishly without graphics drivers.

Step 5: Download proper web driver for your NVIDIA card

Step 6: Install web driver for your NVIDIA card



Step 7: Restart the computer

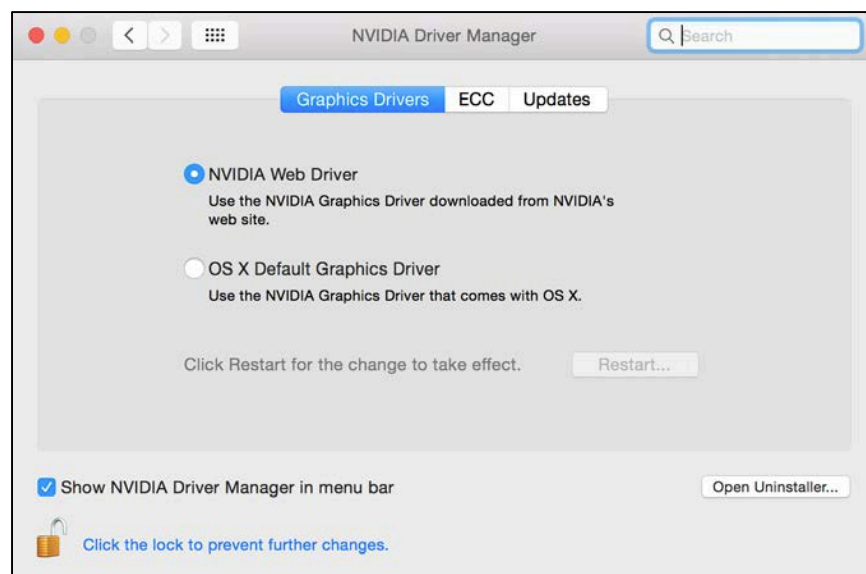
Step 8: Boot to UEFI:(name of your USB)

Step 9: At Bootloader screen look for option like "Open OS X on Yosemite". Hit enter

Step 10: It will boot into Yosemite

Step 11: Under System Preferences is NVIDIA drivers

- Change options to "Nvidia Webdriver" from "Native OS X Graphics Driver"



Step 12: It will ask you to restart, if so... do so... and boot as you did previously two times. When graphics driver is loaded you should see clear smooth screen and mouse movement.

Section 9: Permanent Clover Install / Post-Install

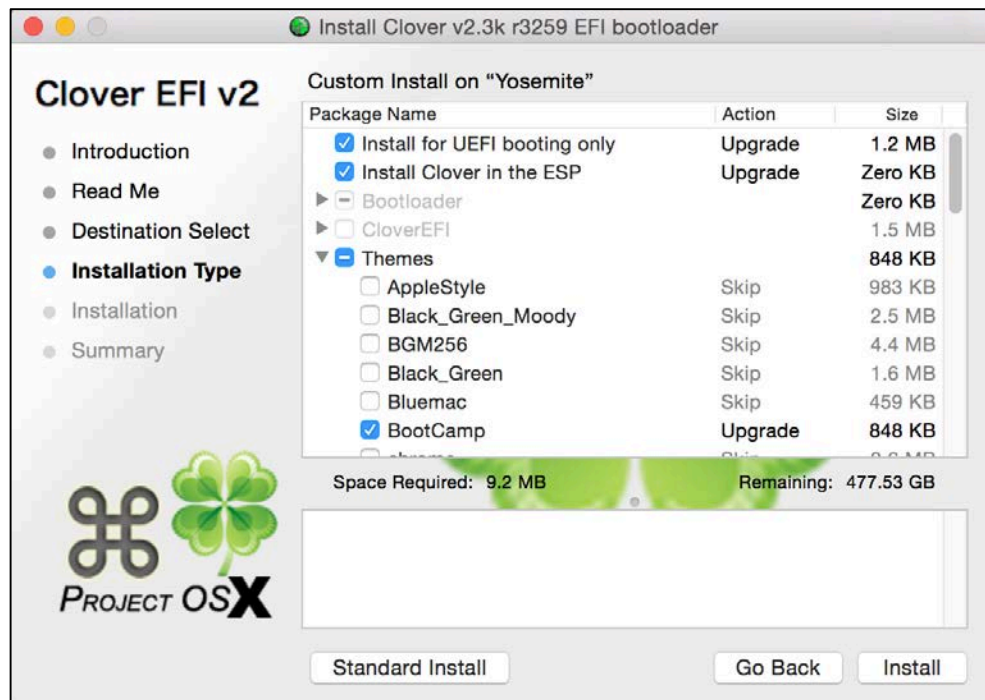
Step 1: Download Clover on OS X from Internet

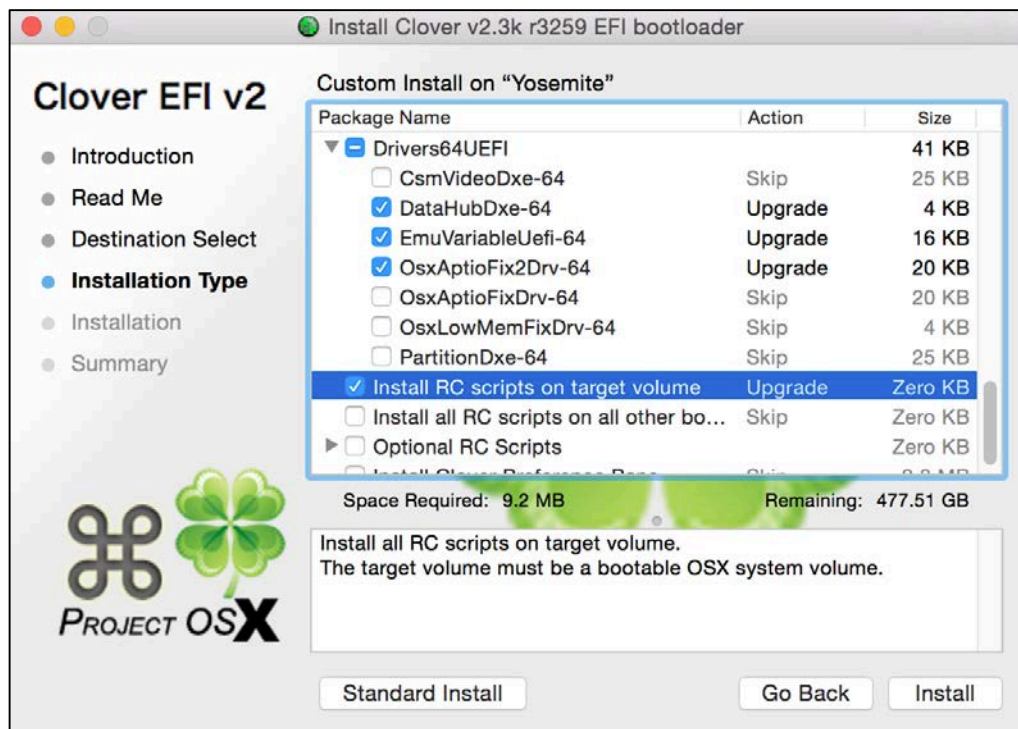
Step 2: Open Clover and **this time do Install location to Yosemite**. It will automatically create an EFI partition to install to

Step 3: Select Custom Install

Step 4: Choose the following settings

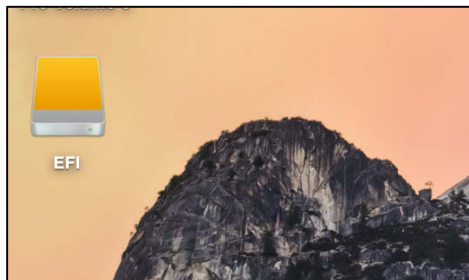
- (A) Install for UEFI booting only
- (B) Install Clover in the ESP
- (C) Themes
 - BootCamp
- (D) Drivers64UEFI
 - DataHubDxe-64
 - EmuVariableUefi-64
 - OsxAptioFixDrv-64
- (E) Install RC scripts on target volume



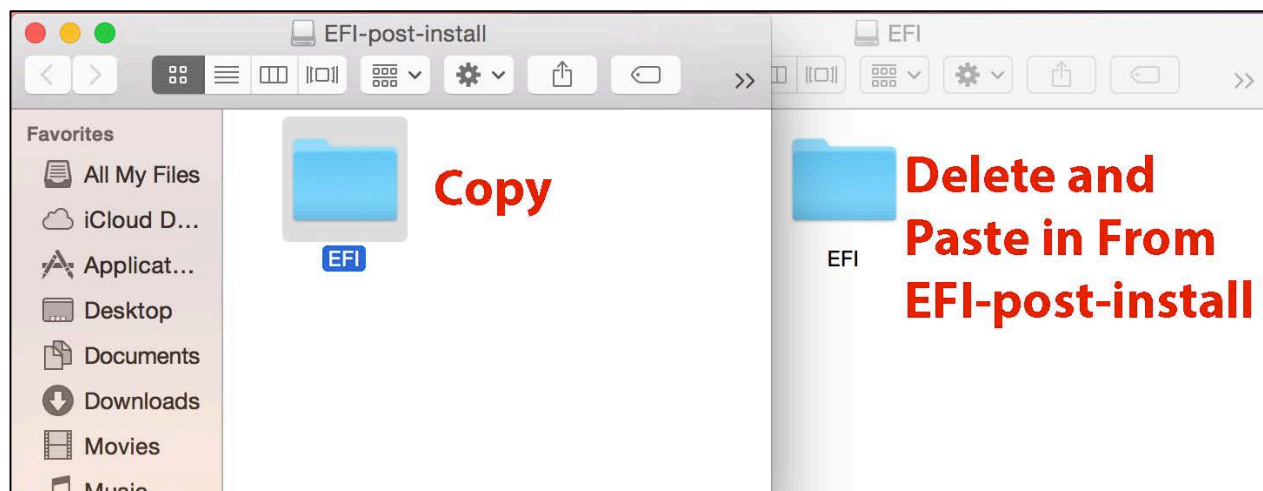


Step 5: Click Install

Step 6: Go to newly created EFI partition



Step 7: Copy EFI folder from "EFI-post-install" USB to EFI partition. Click Yes to Overwrite.



Step 8: Restart

Step 9: Boot to UEFI:(should now be your bootable partition and not a USB anymore)

Step 10: At Bootloader screen look for option like "Open OS X on Yosemite". Hit enter.

Step 11: If your screen goes black, reset your PC and reboot into EFI partition

- 1) Go to options...
- 2) Change nvda_drv=1 to nv_disable=1
- 3) Go back to boot loader screen and do "Open OS X on Yosemite"

Step 12: Your good to go. If you needed step 11, play around with your reboot a few times until your NVIDIA driver is recognized

If you want to play with config.plist, download clover configurator. Make changes, based on your needs. You will need to remount your EFI partition where the files are located. I do this by simply re-running clover with the same options I specified earlier, it automatically remounts it. You can also do other techniques such as using terminal command (where X is determined based on current location of EFI partition (found by `diskutil list` command described earlier)...

In my case (pictured below) it is **sudo mount -t msdos /dev/disk0s1 /Volumes/**

```
diskutil list
```

identify proper EFI drive location

```
mkdir /Volumes/efi
```

then

```
sudo mount -t msdos /dev/diskXs1 /Volumes/efi
```

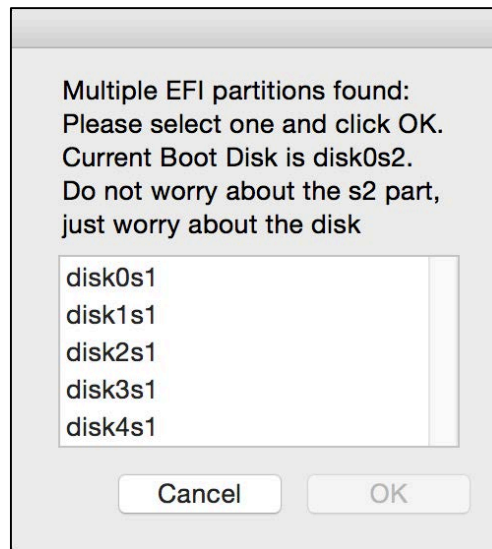
```
roger — bash — 80x35
Last login: Tue Aug 25 05:39:00 on ttys000
Rogers-iMac:~ roger$ diskutil list
/dev/disk0
#:
```

#:	TYPE	NAME	SIZE	IDENTIFIER
0:	GUID_partition_scheme		*512.1 GB	disk0
1:	EFI	EFI	209.7 MB	disk0s1
2:	Apple_HFS	Yosemite	511.3 GB	disk0s2
3:	Apple_Boot	Recovery HD	650.0 MB	disk0s3

```
/dev/disk1
#:
```

#:	TYPE	NAME	SIZE	IDENTIFIER
0:	GUID_partition_scheme		*1.0 TB	disk1
1:	EFI	EFI	209.7 MB	disk1s1
2:	Apple_HFS	Samsung 850 Pro Volu...	1.0 TB	disk1s2

...or use EFI mounter-v2 on the correct disk.



Section 10: Enable Trim on SSD

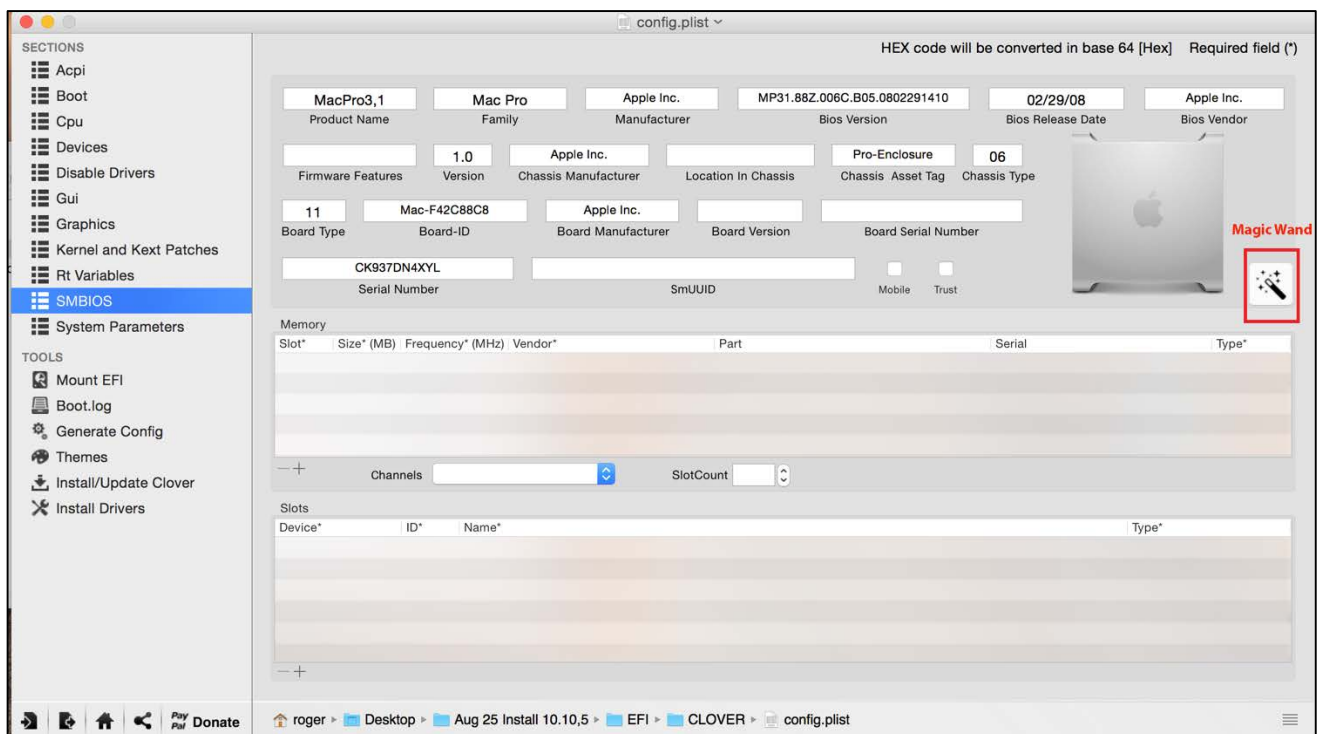
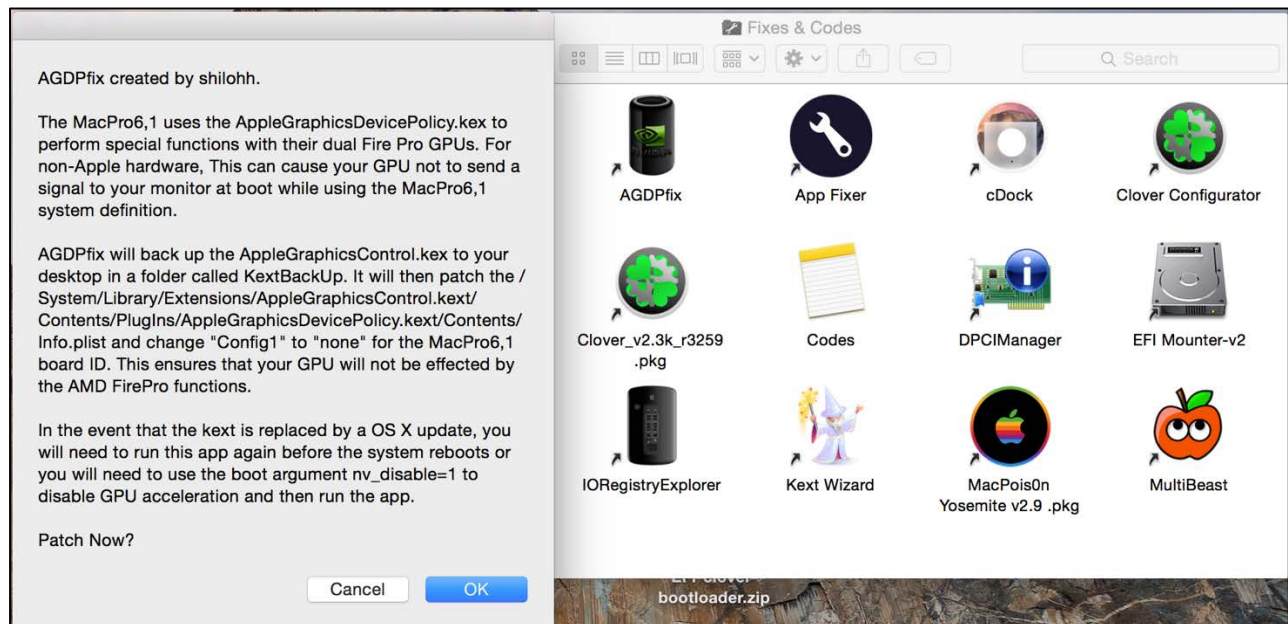
Necessary for full support and speed of SSD, preventing disk corruption as well as for future system updates.

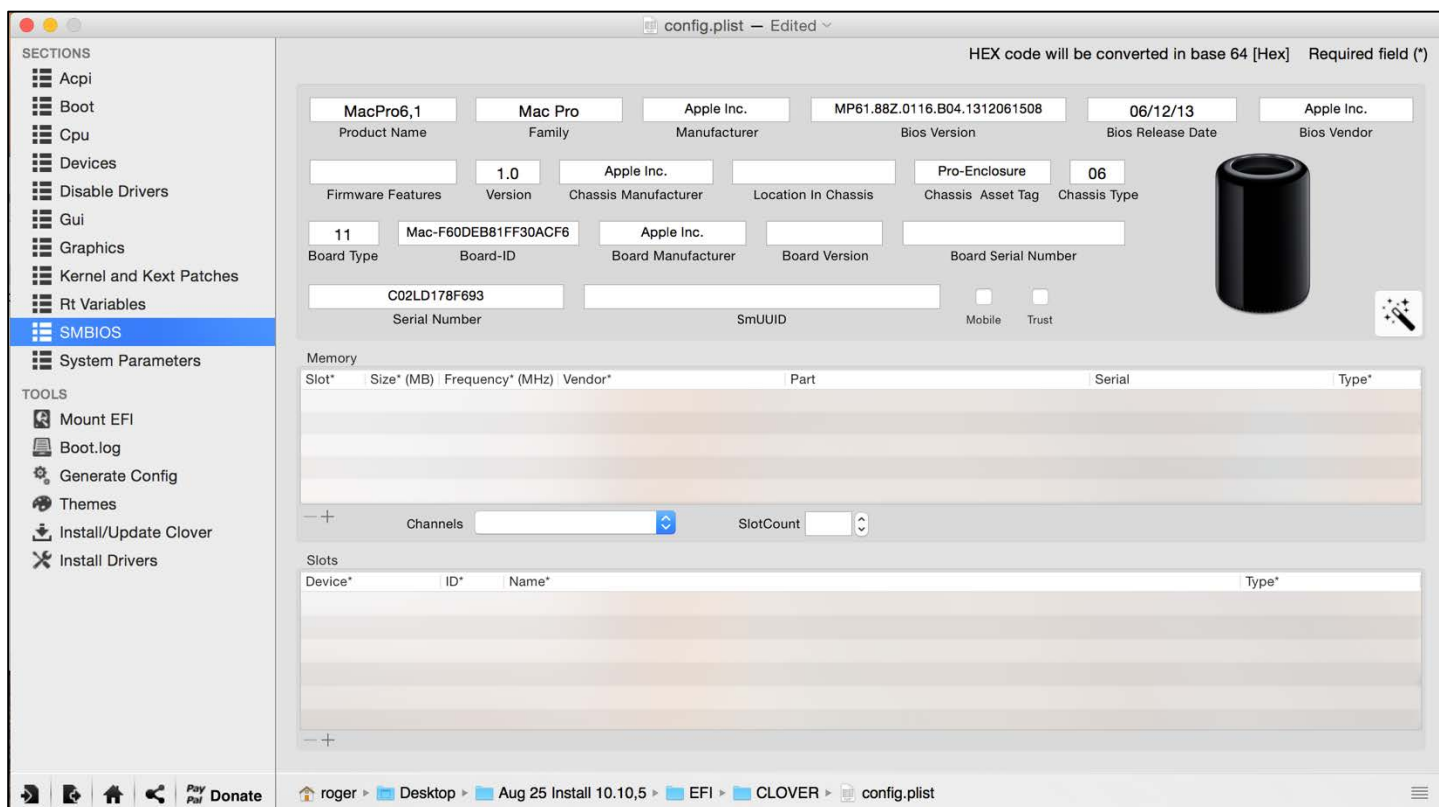
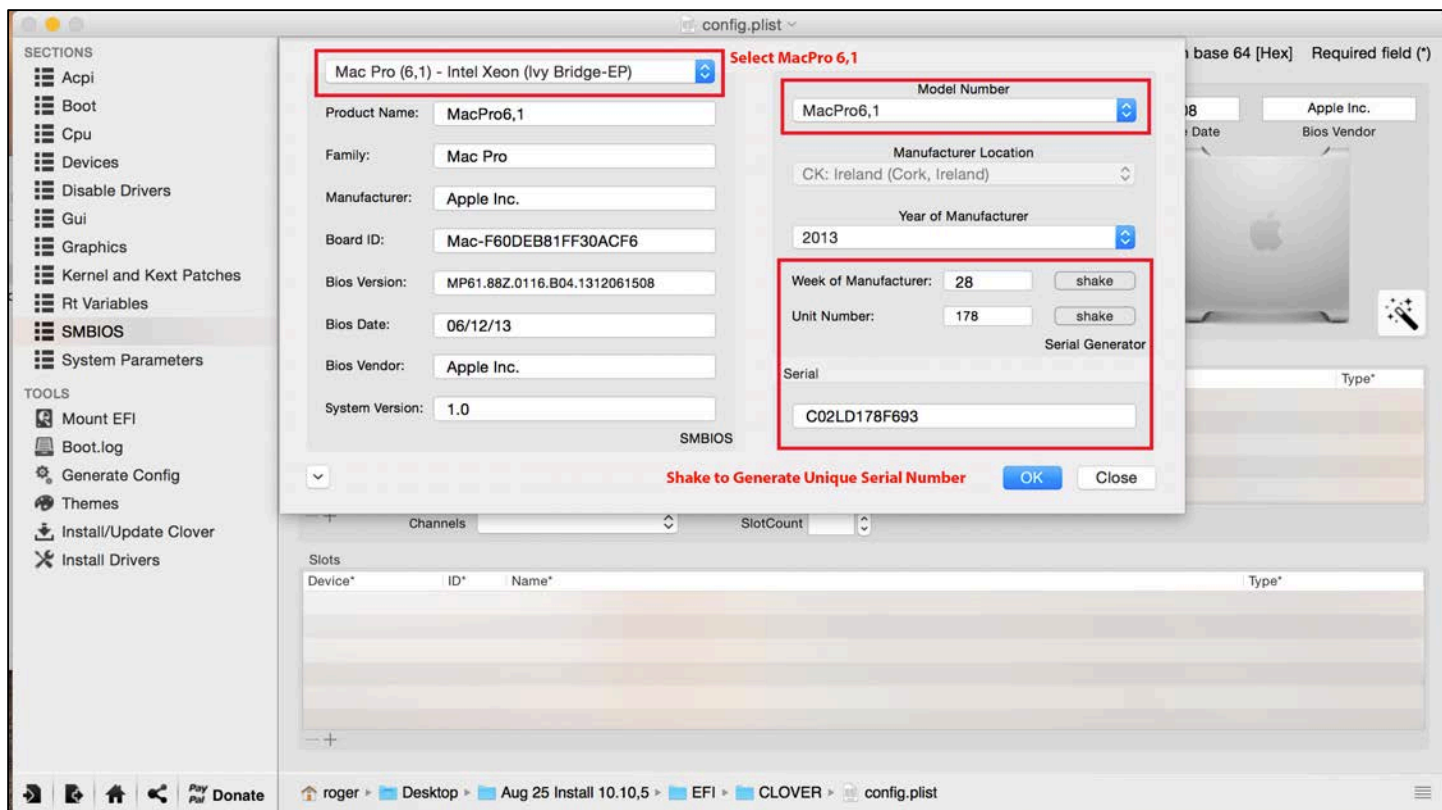
Step 1: In terminal...

```
sudo trimforce enable
```

Section 11: Enable MacPro 6,1 Bios

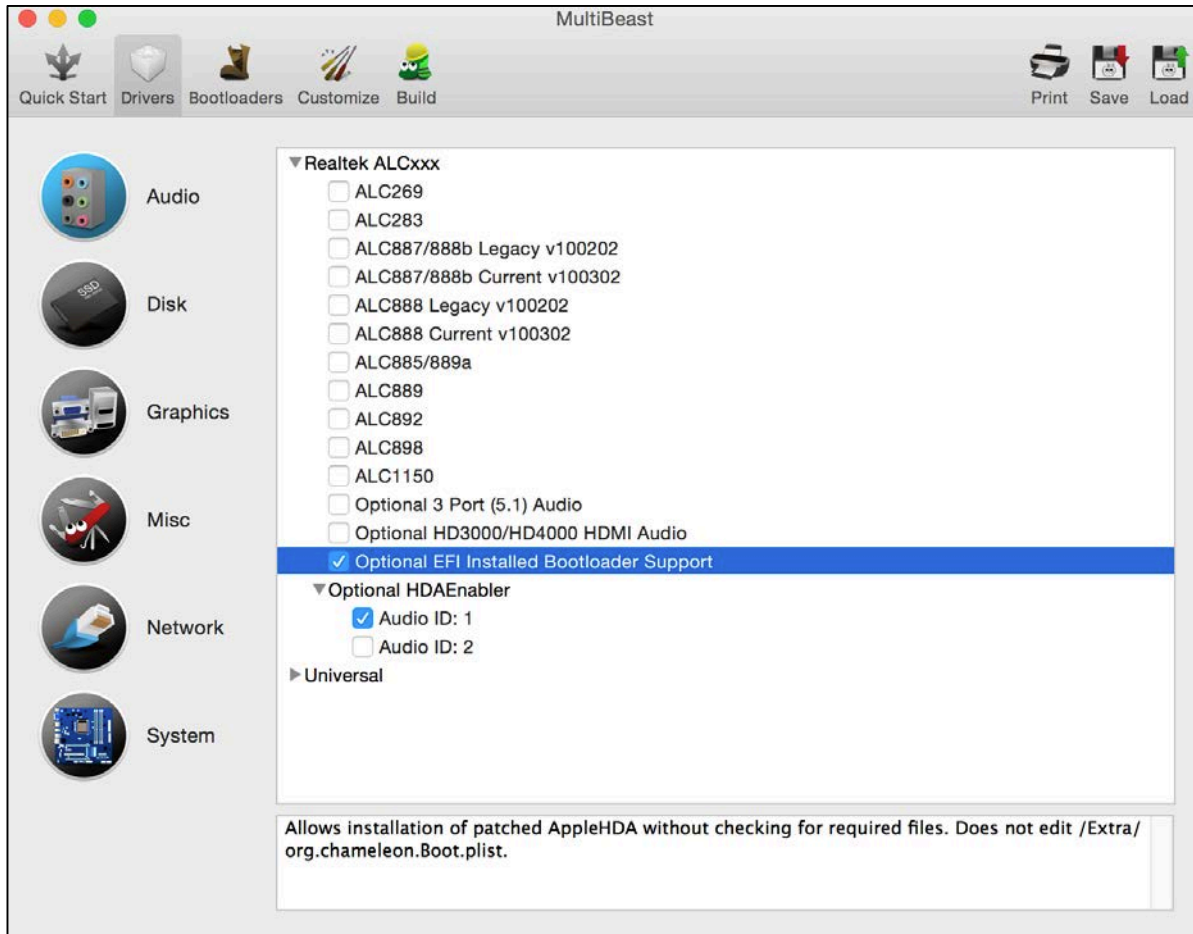
Not necessary but you can have most updated supported. Requires patching a graphics file prior to setting MacPro 6,1 or you will corrupt your system and not be able to boot. The patch is easy with the tool AGDPfix that automates it. I can't provide a link to it as it is not officially supported by Tonymacx86, but just google it. Run the patch and then use clover configurator to set MacPro 6,1 bios. AGDPfix patches AppleGraphicsControl.kext and may be necessary after every time you update to a new driver. I am not sure.

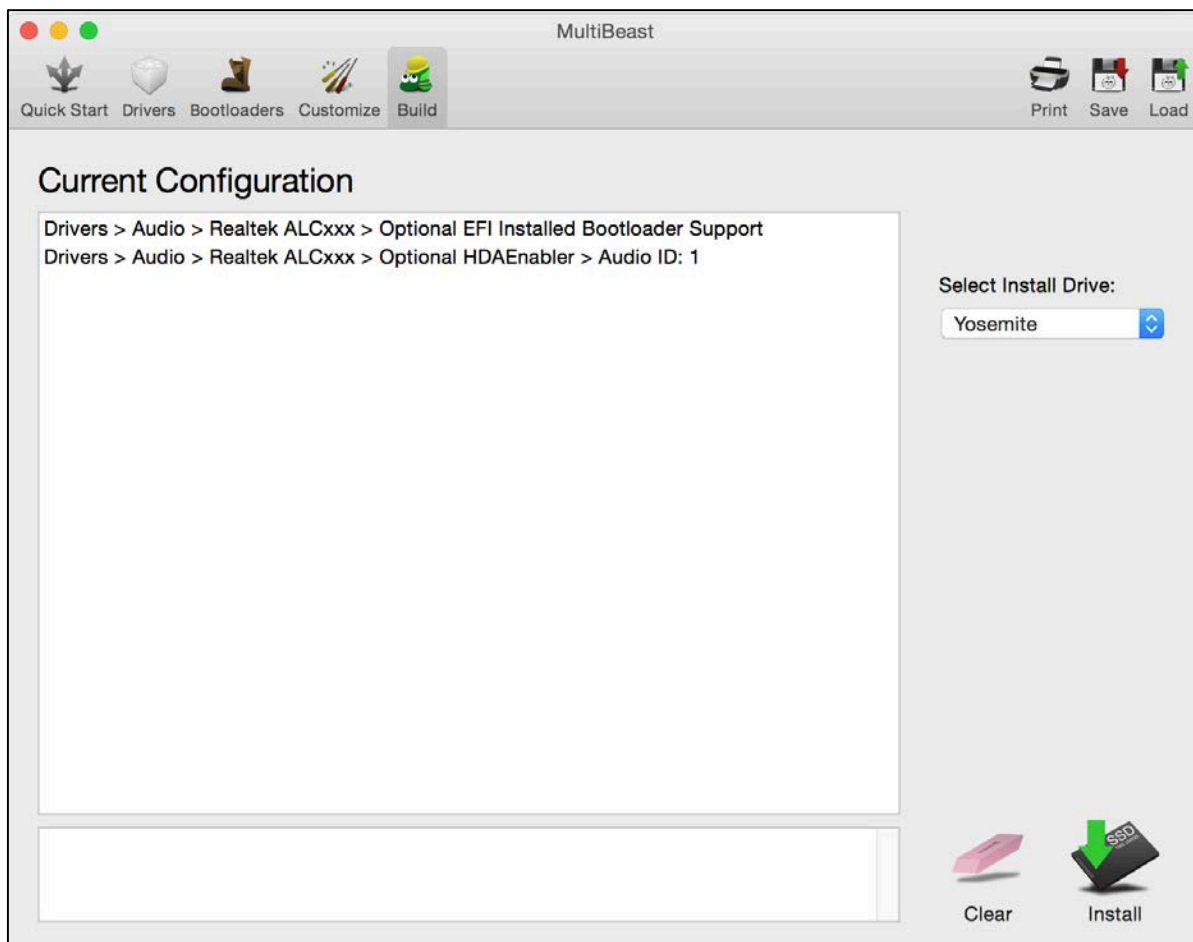




Section 12: Audio Fix (ALC1150)

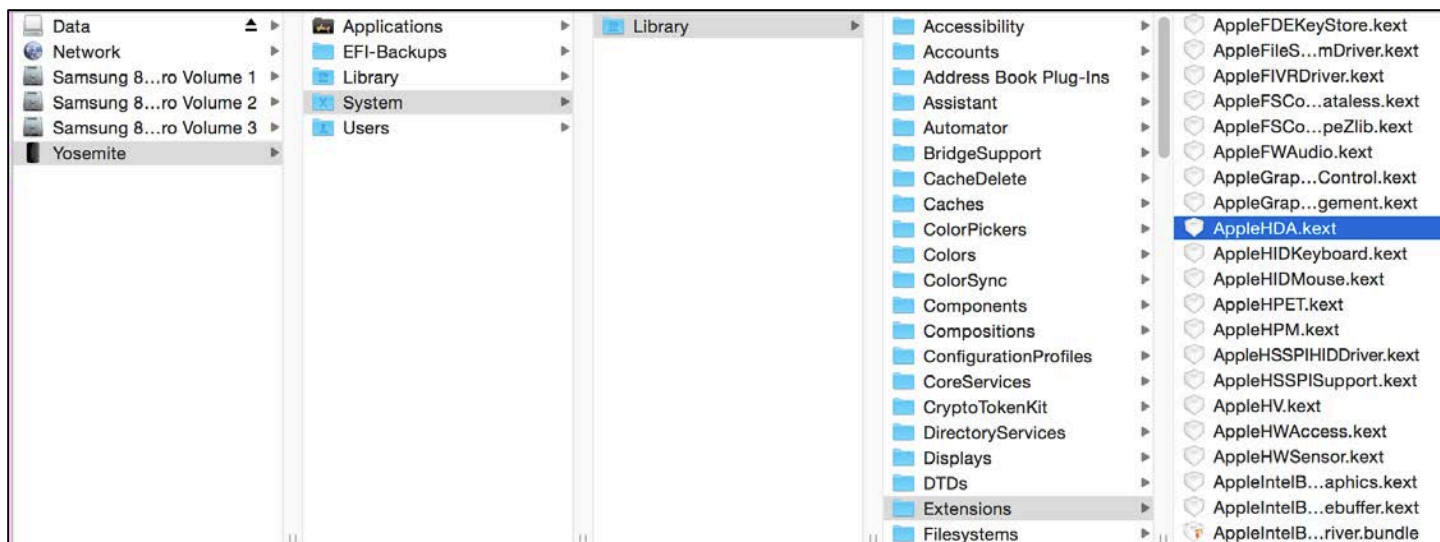
Step 1: In MultiBeast install HDAEnabler1.kext and EFI support to S/L/E folder. It will give an error, ignore it.





Step 2: Go to...

System/Library/Extensions

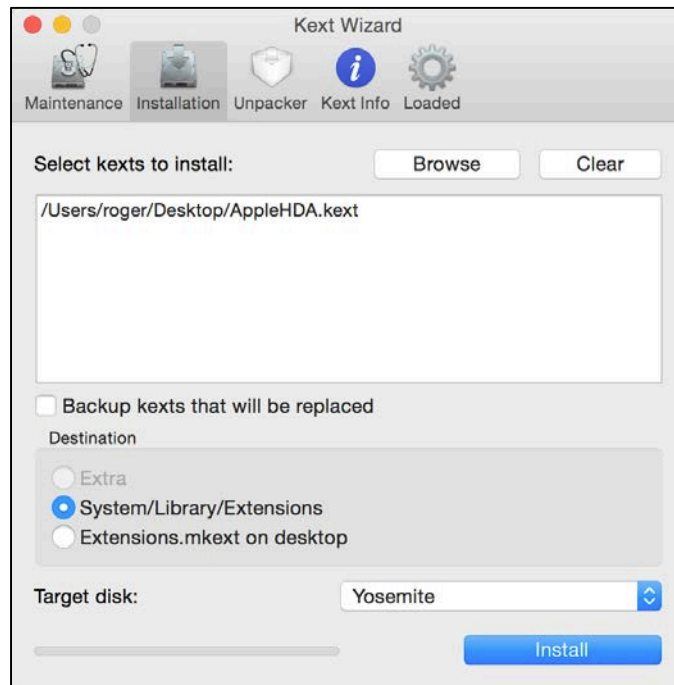


Step 3: Delete native...

- AppleHDA.kext

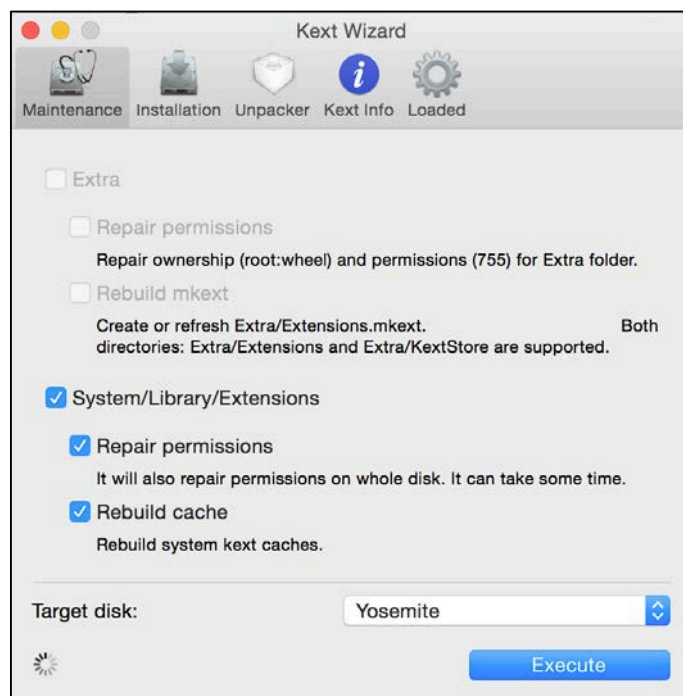
Step 4: In KextWizard click on *Installation* tab

- Browse for patched AppleHDA.kext I provided you
- **Destination** = System/Library/Extensions
- **Target disk** = Yosemite

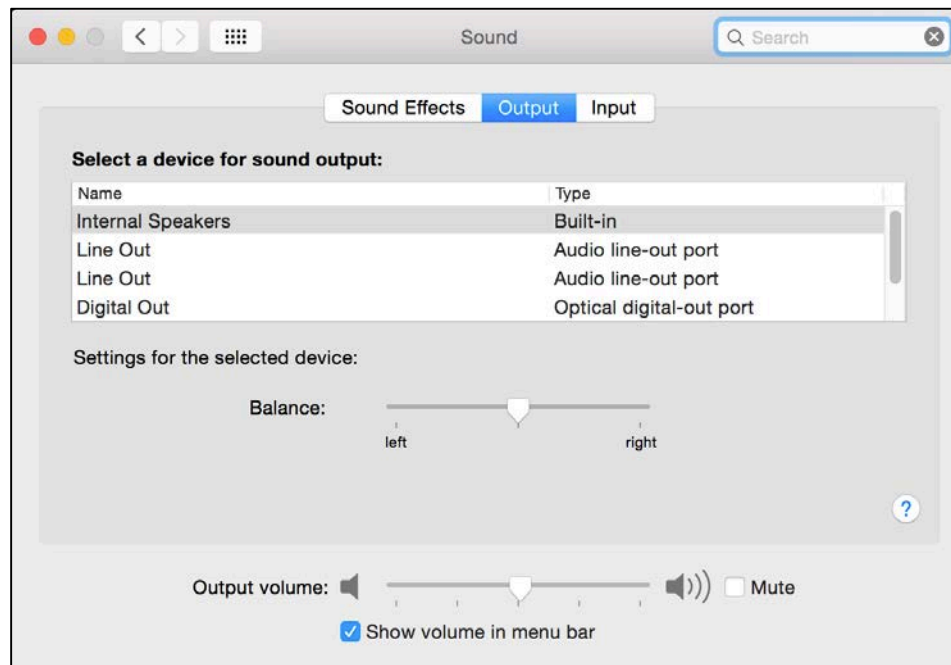


Step 5: Hit install

Step 6: In KextWizard under maintenance tab repair your permissions and rebuild cache.



Step 7: Restart Computer and test audio



Section 13: Overclocking

Step 1: In Bios, disable...

Enhanced Intel Speedstep Technology = Disable

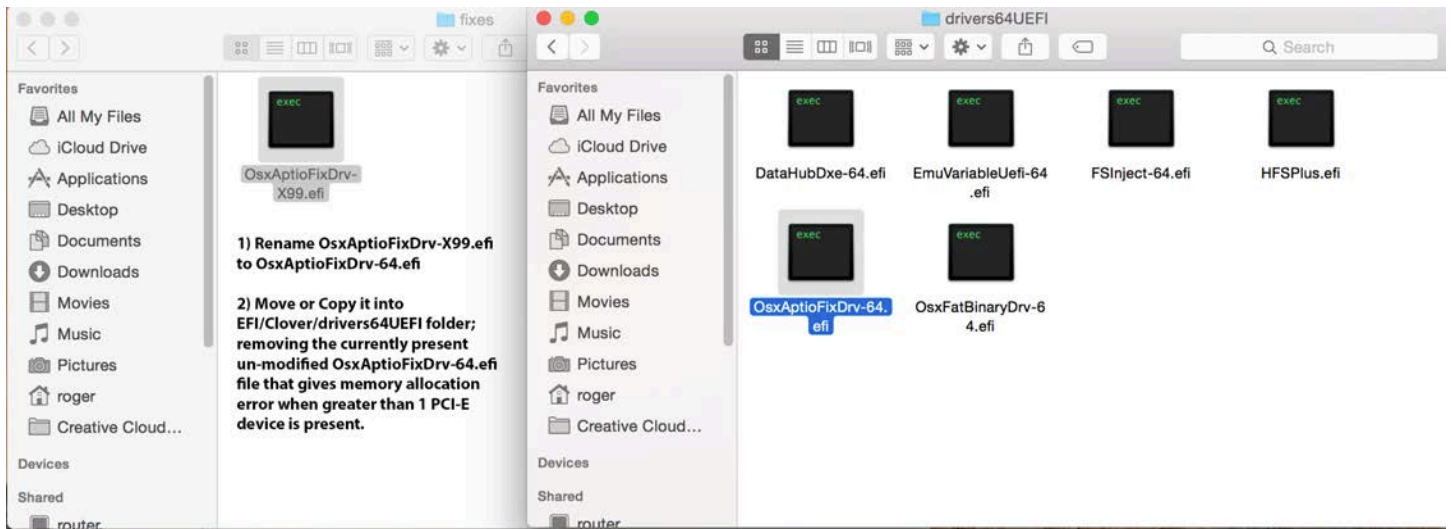
Step 2: Overclock as normal

Section 14: ThunderboltexII and >1 PCI-E Device

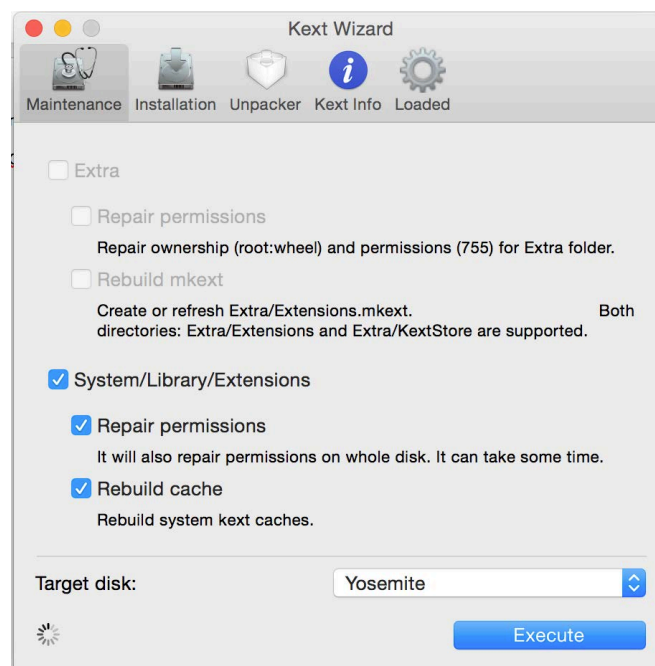
MacOSx Steps

Step 1: Prepare the memory allocation error fix in Yosemite using OsxAptioFixDrv-X99.efi file in fixes folder.

Step 2: Rename modified OsxAptioFixDrv-X99.efi (in fixes folder) to OsxAptioFixDrv-64.efi and copy/move it into EFI/Clover/drivers64UEFI in place of the old un-modified OsxAptioFixDrv-64.efi that causes memory allocation errors.



Step 3: You guessed it. KextWizard. Seriously just anything you do, follow with KextWizard.



Windows Steps (Necessary only for ThunderboltexII)

Step 1: Install newest Intel Thunderbolt drivers in Windows. Shutdown

Step 2: Plug in thunderbolt drive to correct PCI-E slot. #2 on X99E-WS

Step 3: Enter into Windows and recognize/activate your thunderbolt harddrive or display

Step 4: Restart into bios

Bios settings

Step 1: Go to...

- **Boot**

Fast Boot = Disabled

Secure Boot > See Options Below

> **Secure Boot state** = Disabled ie. delete secure keys under key management

> **OS Type** = Other Os

- **Thunderbolt**

Security Level = *'Legacy Mode'*

Wake from Thunderbolt Devices = *'Off'*

AIC Support = *'On'*

Thunderbolt PCIe Cache-line Size = *'128'* <- choose down to 32 if necessary

SMI/Notify Support = *'On'*

SwSMI Support = *'On'*

Ignore Thunderbolt Option Rom = *'On'*

Thunderbolt SwSMI Delay = *'0'*

TBT Device IO resource Support = *'Off'*

Reserved Mem per phy slot = *'32'* or up to *'128'*

Reserved PMem per phy slot = *'32'* or up to *'128'*

- **Advanced\Onboard Devices Configuration**

PCIEX16_2Slot(black Bandwith = *'x4 Mode'*

- **Note:** you'll lose 1 or 2 USB 3.0 ports, but no biggy for full Thunderbolt 2.0 speed

Serial Port Configuration = *'Disabled'*

ASUS UEFI BIOS Utility – Advanced Mode

08/25/2015 Tuesday 13:34 | English | MyFavorite(F3) | Qfan Control(F6) | EZ Tuning Wizard(F11) | Quick Note(F9) | Hot Keys

My Favorites Main Ai Tweaker **Advanced** Monitor Boot Tool Exit

← Advanced\Intel(R) Thunderbolt

Intel(R) Thunderbolt Configuration

Thunderbolt Specification Version 1.1

Intel Sample Code Version 1.10

Thunderbolt Host Chip Falcon Ridge

Intel Thunderbolt Technology **On** Off

Security Level Legacy Mode

Wake From Thunderbolt Devices On Off

AIC Support On Off

AIC Location Group SB PCIE Slot

AIC Location SB PCIE X16_2

Thunderbolt PCIe Cache-line Size 128

SMI/Notify Support On Off

Enable or Disable Intel(R) Thunderbolt Function.

Hardware Monitor

CPU

Frequency 3500 MHz Temperature 46°C

BCLK 100.0 MHz Core Voltage 1.088 V

Ratio 35x

Memory

Frequency 2400 MHz Vol_CHAB 1.246 V

Capacity 65536 MB Vol_CHCD 1.246 V

Voltage

+12V 12.000 V +5V 5.000 V

+3.3V 3.296 V

Last Modified | EzMode(F7) |

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ASUS UEFI BIOS Utility – Advanced Mode

08/25/2015 Tuesday 13:34 | English | MyFavorite(F3) | Qfan Control(F6) | EZ Tuning Wizard(F11) | Quick Note(F9) | Hot Keys

My Favorites Main Ai Tweaker **Advanced** Monitor Boot Tool Exit

AIC Support On Off

AIC Location Group SB PCIE Slot

AIC Location SB PCIE X16_2

Thunderbolt PCIe Cache-line Size 128

SMI/Notify Support On Off

SwSMI Support On Off

Notify Support On Off

Ignore Thunderbolt Option Rom On Off

Thunderbolt SwSMI Delay 0

TBT Device IO resource Support On Off

Reserved Mem per phy slot 128

Reserved PMem per phy slot 128

If PCIe device consume < ~ MB of Prefetchable memory, BIOS will reserve ~ per physical slot.

Hardware Monitor

CPU

Frequency 3500 MHz Temperature 46°C

BCLK 100.0 MHz Core Voltage 1.088 V

Ratio 35x

Memory

Frequency 2400 MHz Vol_CHAB 1.243 V

Capacity 65536 MB Vol_CHCD 1.246 V

Voltage

+12V 12.000 V +5V 5.000 V

+3.3V 3.280 V

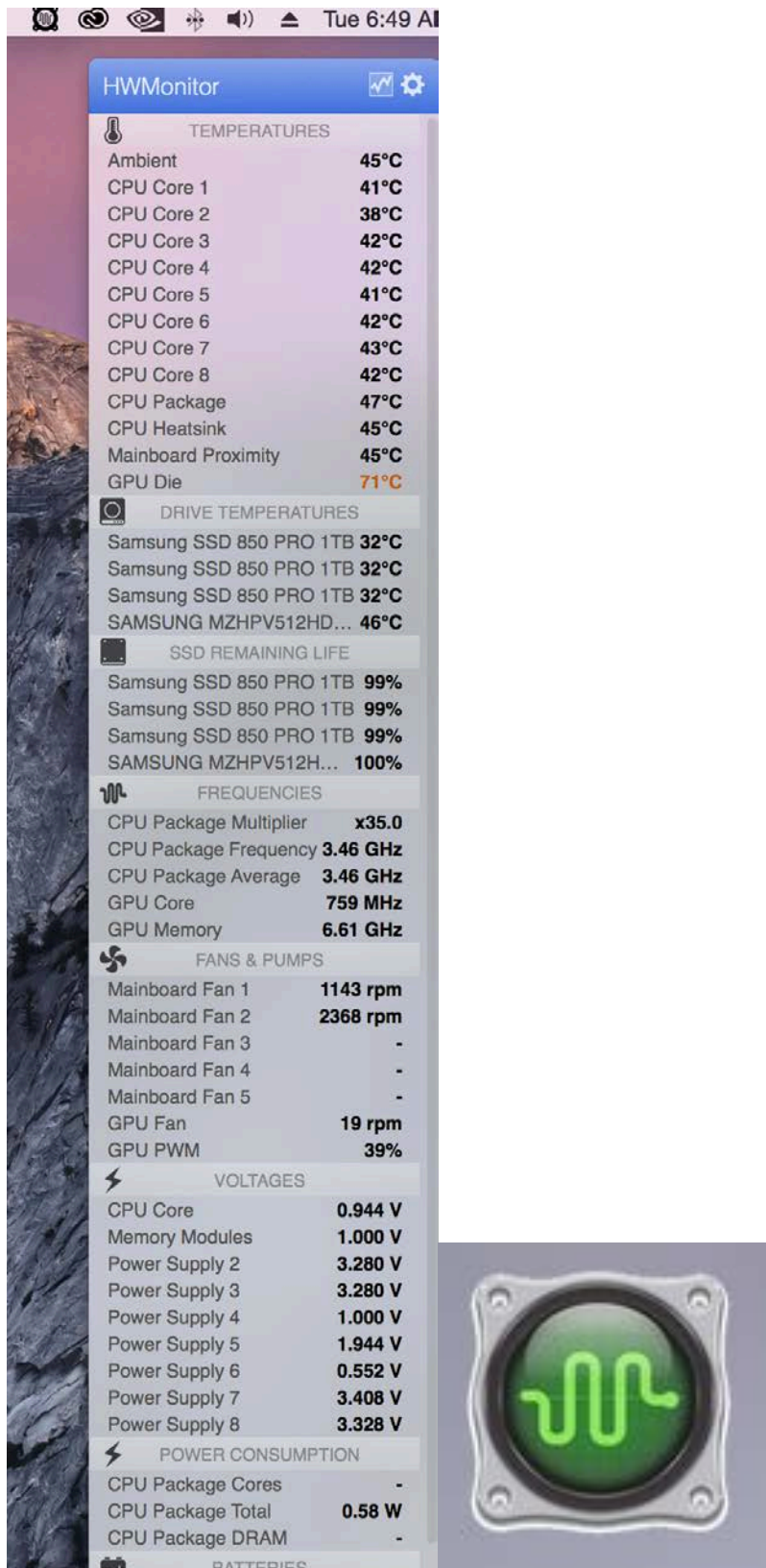
Last Modified | EzMode(F7) |

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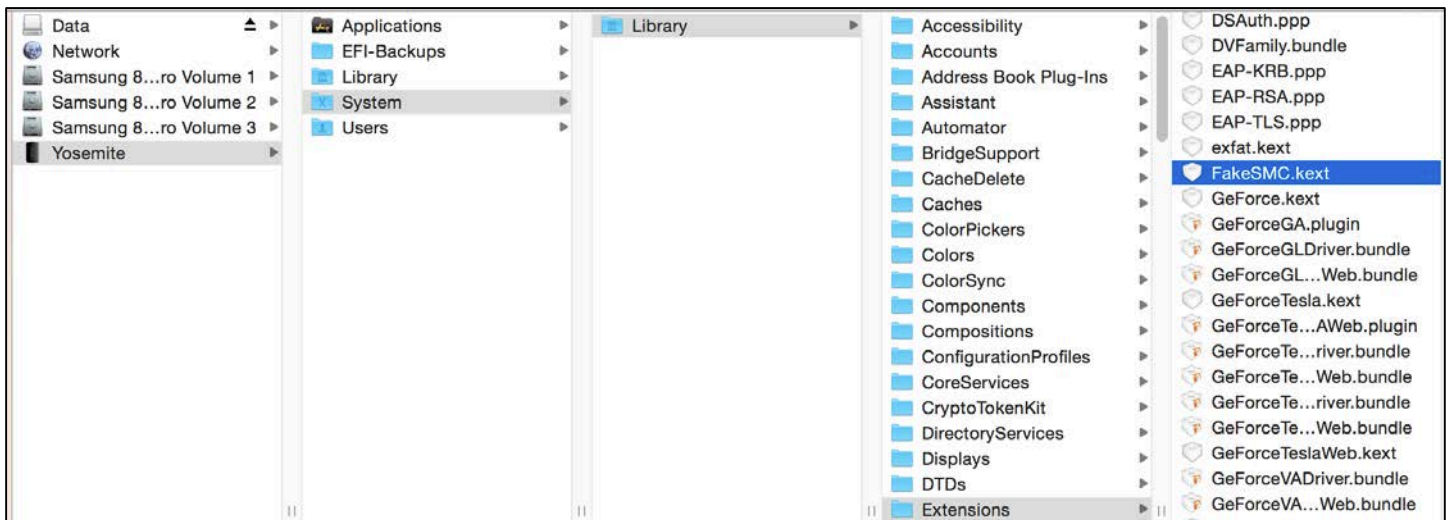
Step 2: Make sure thunderbolt SSD or Display is plugged in and boot into MacOSx. There is no hotplug support so device must always be plugged in prior to booting into MacOSx.

Section 15: Hardware/System Monitoring Support



Step 1: Go to...

System/Library/Extensions

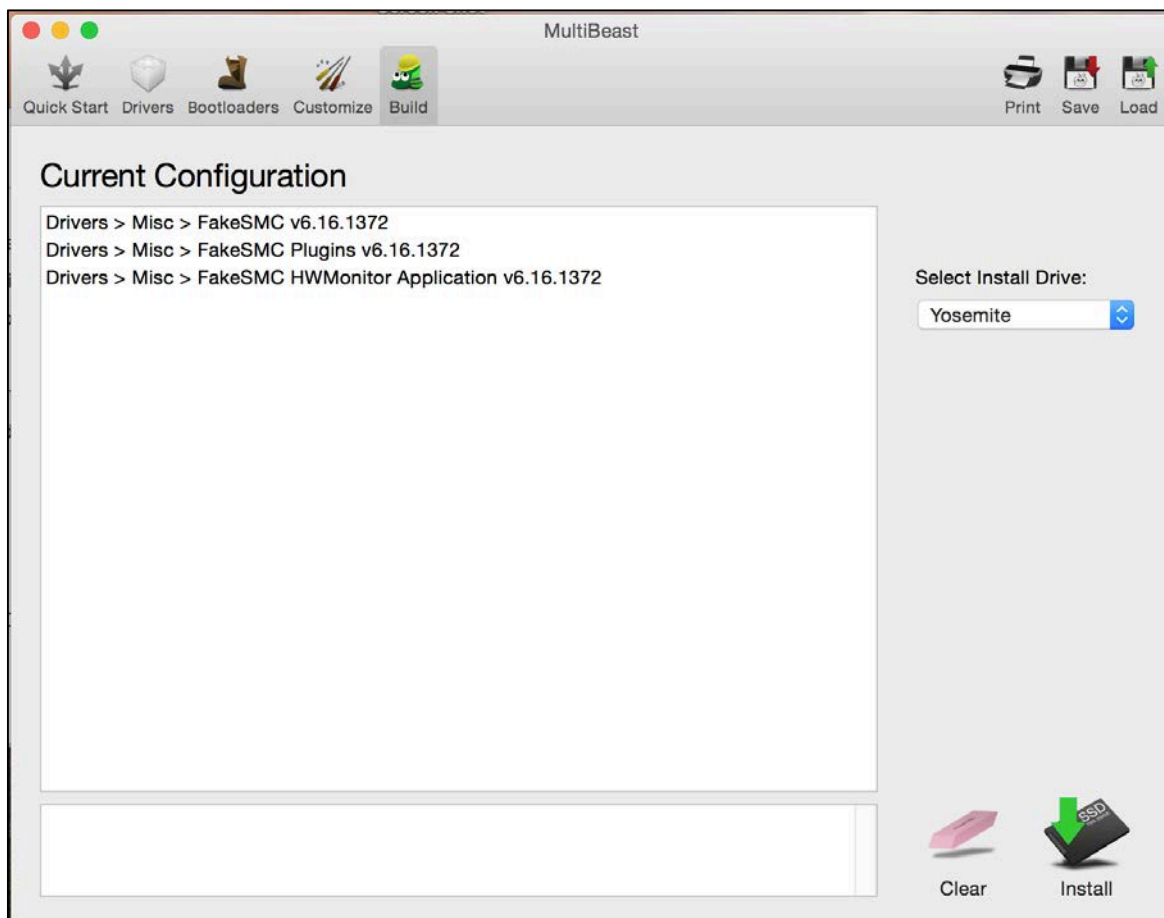
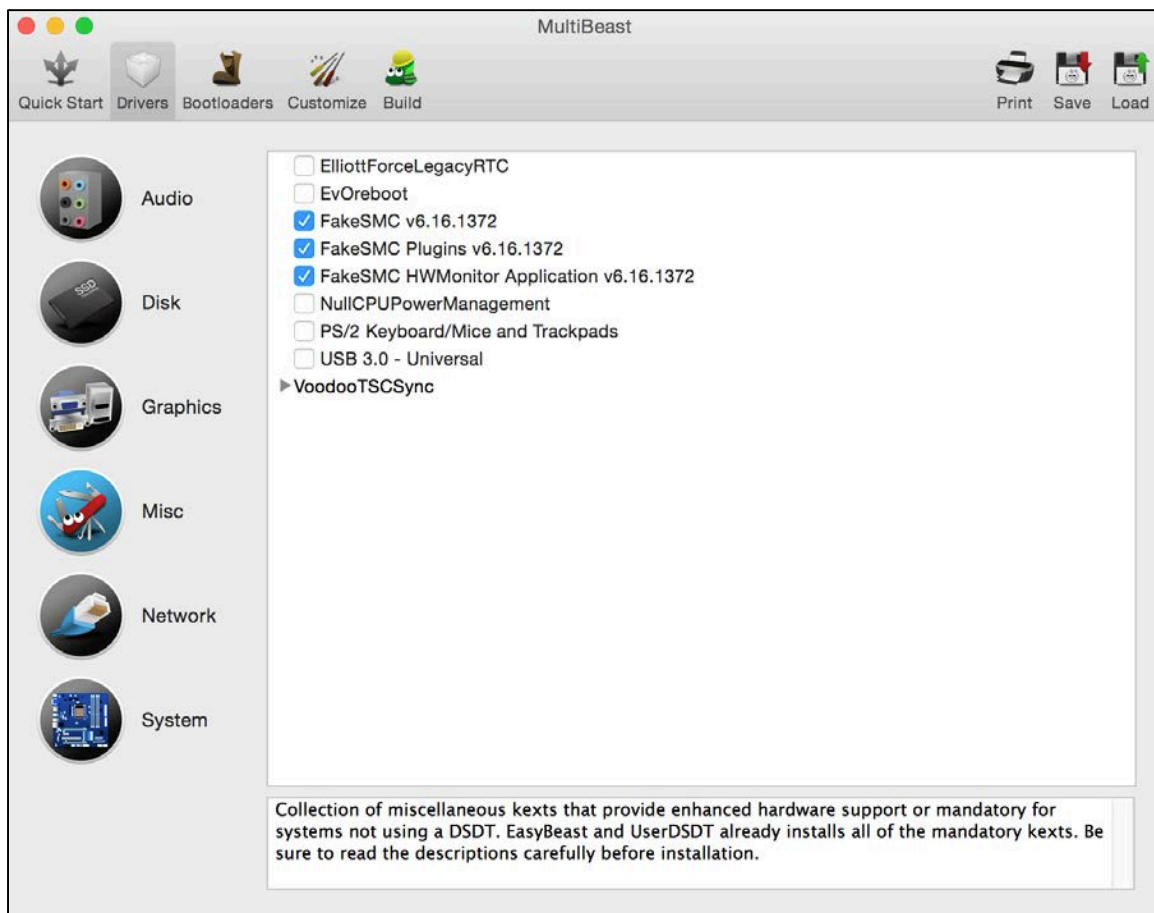


Step 2: Delete...

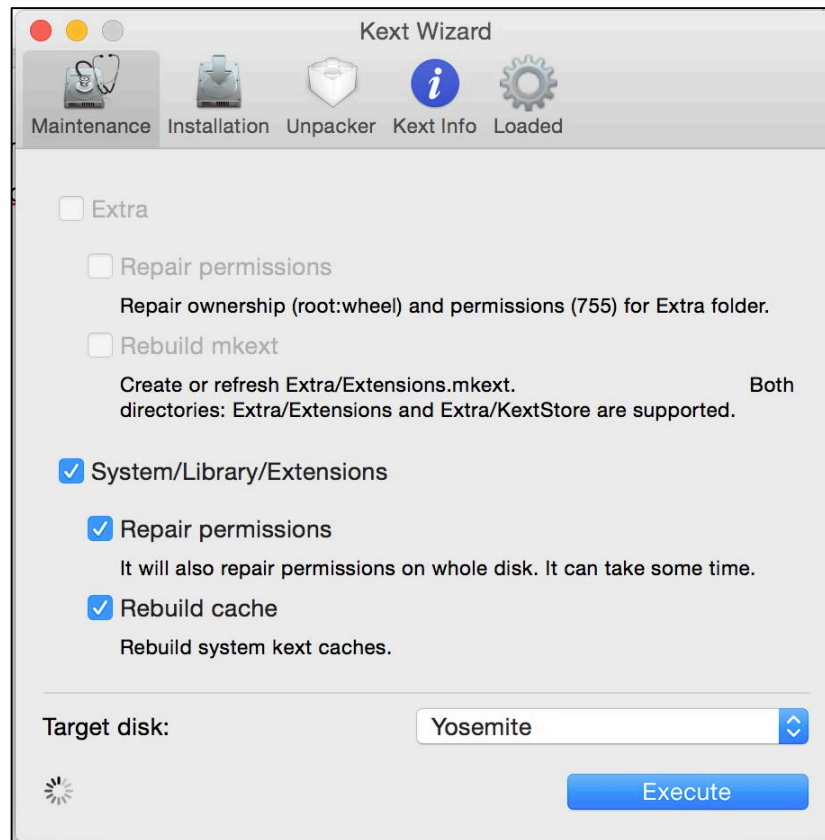
- fakeSMC.kext

Step 3: Run MultiBeast and install...

- Drivers > Misc > FakeSMC v6.16.1372
- Drivers > Misc > FakeSMC Plugins v6.16.1372
- Drivers > Misc > FakeSMC HWMonitor Application v6.16.1372



Step 4: In KextWizard under maintenance tab repair your permissions and rebuild cache.



Step 5: Reboot into MacOSx

Section 16: Other Potential Useful MultiBeast Kexts

