

OpenCore auf Gigabyte Z490 Gaming X

=> Vorgehen nach <<https://dortania.github.io/OpenCore-Install-Guide/>>

1. Vorbereitungen für OC Boot Stick

- Boot Stick(s) erstellen

- Festplattendienstprogramm
'Intenso Ultra Line Media'

- Löschen

- Name: 'INTENSO'

- Format: 'ExFAT'

- Schema: 'GUID-Partitionstabelle'

- 'diskutil list'

/dev/disk4 (external, physical):

#:	TYPE	NAME	SIZE	IDENTIFIER
0:	GUID_partition_scheme		*32.0 GB	disk4
1:	EFI	EFI	209.7 MB	disk4s1
2:	Microsoft Basic Data	INTENSO	31.8 GB	disk4s2

- 'sudo /Users/Shared/DATEN/Archiv/MAC/OS\ X/10.15\ Catalina/10.15.7/Install\ macOS\Catalina.app/Contents/Resources/createinstallmedia --volume /Volumes/INTENSO --nointeraction'

- 'diskutil list'

/dev/disk4 (external, physical):

#:	TYPE	NAME	SIZE	IDENTIFIER
0:	GUID_partition_scheme		*32.0 GB	disk4
1:	EFI	EFI	209.7 MB	disk4s1
2:	Apple_HFS	Install macOS Catalina	31.7 GB	disk4s2

2. Vorbereitungen für OC Boot Stick (Downloads)

- Download 'gibMacOS-master.zip' von <<https://github.com/corpnewt/gibMacOS>> nach
'/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/'

- Entpacken nach '/Users/Shared/DATEN/Archiv/MAC/OS
X/Hackintosh/OpenCore/gibMacOS'

- Download 'MountEFI-update.zip' von <<https://github.com/corpnewt/MountEFI>> nach '/Users/
Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/'

- Entpacken nach '/Users/Shared/DATEN/Archiv/MAC/OS
X/Hackintosh/OpenCore/MountEFI'

- Download 'OpenCore-0.6.2-RELEASE.zip' von
<<https://github.com/acidanthera/OpenCorePkg/releases/>> nach
'/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/'

- Entpacken nach '/Users/Shared/DATEN/Archiv/MAC/OS
X/Hackintosh/OpenCore/OpenCore-0.6.2'

- Download 'refind-bin-0.12.0.zip' von
<<https://sourceforge.net/projects/refind/files/latest/download>> nach '/Users/Shared/DATEN/Archiv/
MAC/OS X/Hackintosh/OpenCore/'

- Entpacken nach '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/refind-bin-0.12.0'

- Download 'HfsPlus.efi' von
<<https://github.com/acidanthera/OcBinaryData/blob/master/Drivers/HfsPlus.efi>> nach
'/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/Drivers'

- Download 'VirtualSMC-1.1.7-RELEASE.zip' von
<<https://github.com/acidanthera/VirtualSMC/releases>> nach '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/Kext'

- Entpacken nach '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/Kext/VirtualSMC-1.1.7'

- Download 'Lilu-1.4.8-RELEASE.zip' von <<https://github.com/acidanthera/Lilu/releases>>
nach '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/Kext'

- Entpacken nach '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/Kext/Lilu-1.4.8'

- Download 'WhateverGreen-1.4.3-RELEASE.zip' von
<<https://github.com/acidanthera/WhateverGreen/releases>> nach
'/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/Kext'

- Entpacken nach '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/Kext/WhateverGreen-1.4.3'

- Download 'AppleALC-1.5.3-RELEASE.zip' von
<<https://github.com/acidanthera/AppleALC/releases>> nach
'/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/Kext'

- Entpacken nach '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/Kext/AppleALC-1.5.3'

- Download 'IntelMausi-1.0.4-RELEASE.zip' von
<<https://github.com/acidanthera/IntelMausi/releases>> nach
'/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/Kext'

- Entpacken nach '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/Kext/IntelMausi-1.0.4'

- Download 'SSDT-PLUG-DRTNIA.aml' von <<https://github.com/dortania/Getting-Started-With-ACPI/blob/master/extra-files/compiled/SSDT-PLUG-DRTNIA.aml>> nach
'/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/ACPI'

- Download 'SSDT-EC-USBX-DESKTOP.aml' von <<https://github.com/dortania/Getting-Started-With-ACPI/blob/master/extra-files/compiled/SSDT-EC-USBX-DESKTOP.aml>> nach
'/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/ACPI'

- Download 'SSDT-AWAC.aml' von
<<https://github.com/dortania/Getting-Started-With-ACPI/blob/master/extra-files/compiled/SSDT-AWAC.aml>> nach '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/ACPI'

- Download 'SSDT-RHUB.aml' von
<<https://github.com/dortania/Getting-Started-With-ACPI/blob/master/extra-files/compiled/SSDT-RHUB.aml>> nach '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/ACPI'

- Download 'ProperTree-master.zip' von <<https://github.com/corpnewt/ProperTree>> nach
'/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/'

- Entpacken nach '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/ProperTree'
- 'cd /Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/ProperTree/Scripts'
- 'sudo /Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/ProperTree/Scripts/buildapp.command'
- Checking for existing ProperTree.app...
- Creating bundle structure...
- Copying scripts...
- ProperTree.command
- run.py
- plist.py
- shortcut.icns
- __init__.py
- menu.plist
- utils.py
- plistwindow.py
- Building Info.plist...

- Download 'GenSMBIOS-master.zip' von <<https://github.com/corpnewt/GenSMBIOS>> nach '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/'
- Entpacken nach '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/GenSMBIOS'

3. OC auf Boot Stick installieren

- EFI-Partition des USB-Sticks mounten
- 'diskutil list'

/dev/disk4 (external, physical):

#:	TYPE NAME	SIZE	IDENTIFIER
0:	GUID_partition_scheme	*32.0 GB	disk4
1:	EFI EFI	209.7 MB	disk4s1
2:	Apple_HFS Install macOS Catalina	31.7 GB	disk4s2

- 'sudo diskutil mount disk4s1'

- 'sudo cp -r /Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/OpenCore-0.6.2/X64/EFI /Volumes/EFI/'

- 'sudo cp /Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/OpenCore-0.6.2/Docs/Configuration.pdf /Volumes/EFI/EFI/OC'

- 'sudo cp /Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/OpenCore-0.6.2/Docs/Sample.plist /Volumes/EFI/EFI/OC'

- 'sudo cp /Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/OpenCore-0.6.2/Docs/SampleCustom.plist /Volumes/EFI/EFI/OC'

- 'sudo rm /Volumes/EFI/EFI/OC/Drivers/AudioDxe.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Drivers/CrScreenshotDxe.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Drivers/OpenUsbKbDxe.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Drivers/UsbMouseDxe.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Drivers/NvmExpressDxe.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Drivers/XhciDxe.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Drivers/HiiDatabase.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Drivers/OpenCanopy.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Drivers/Ps2KeyboardDxe.efi'

- 'sudo rm /Volumes/EFI/EFI/OC/Drivers/Ps2MouseDxe.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Tools/BootKicker.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Tools/ChipTune.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Tools/CleanNvram.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Tools/GopStop.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Tools/HdaCodecDump.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Tools/KeyTester.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Tools/MmapDump.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Tools/OpenControl.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Tools/ResetSystem.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Tools/RtcRw.efi'
- 'sudo rm /Volumes/EFI/EFI/OC/Tools/VerifyMsrE2.efi'

- 'sudo cp -r /Users/Shared/DATEN/Archiv/MAC/OS\ X/Hackintosh/OpenCore/Drivers/HfsPlus.efi /Volumes/EFI/EFI/OC/Drivers'

- 'sudo cp -r /Users/Shared/DATEN/Archiv/MAC/OS\ X/Hackintosh/OpenCore/Kext/VirtualSMC-1.1.7/Kexts/VirtualSMC.kext /Volumes/EFI/EFI/OC/Kext'
- 'sudo cp -r /Users/Shared/DATEN/Archiv/MAC/OS\ X/Hackintosh/OpenCore/Kext/VirtualSMC-1.1.7/Kexts/SMCProcessor.kext /Volumes/EFI/EFI/OC/Kext'
- 'sudo cp -r /Users/Shared/DATEN/Archiv/MAC/OS\ X/Hackintosh/OpenCore/Kext/VirtualSMC-1.1.7/Kexts/SMCSuperIO.kext /Volumes/EFI/EFI/OC/Kext'
- 'sudo cp -r /Users/Shared/DATEN/Archiv/MAC/OS\ X/Hackintosh/OpenCore/Kext/Lilu-1.4.8/Lilu.kext /Volumes/EFI/EFI/OC/Kext'
- 'sudo cp -r /Users/Shared/DATEN/Archiv/MAC/OS\ X/Hackintosh/OpenCore/Kext/WhateverGreen-1.4.3/WhateverGreen.kext /Volumes/EFI/EFI/OC/Kext'
- 'sudo cp -r /Users/Shared/DATEN/Archiv/MAC/OS\ X/Hackintosh/OpenCore/Kext/AppleALC-1.5.3/AppleALC.kext /Volumes/EFI/EFI/OC/Kext'
- 'sudo cp -r /Users/Shared/DATEN/Archiv/MAC/OS\ X/Hackintosh/OpenCore/Kext/IntelMausi-1.0.4/IntelMausi.kext /Volumes/EFI/EFI/OC/Kext'

- 'sudo cp /Users/Shared/DATEN/Archiv/MAC/OS\ X/Hackintosh/OpenCore/ACPI/SSDT-PLUG-DRTNIA.aml /Volumes/EFI/EFI/OC/ACPI'
- 'sudo cp /Users/Shared/DATEN/Archiv/MAC/OS\ X/Hackintosh/OpenCore/ACPI/SSDT-EC-USBX-DESKTOP.aml /Volumes/EFI/EFI/OC/ACPI'
- 'sudo cp /Users/Shared/DATEN/Archiv/MAC/OS\ X/Hackintosh/OpenCore/ACPI/SSDT-AWAC.aml /Volumes/EFI/EFI/OC/ACPI'

- 'sudo cp /Volumes/EFI/EFI/OC/Sample.plist /Volumes/EFI/EFI/OC/config.plist'

- '/Volumes/EFI/EFI/OC/config.plist' mit '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/ProperTree/ProperTree.app' bearbeiten

- CMD+Shift+R => OC Clean Snapshot
 - Verzeichnis '/Volumes/EFI/EFI/OC' angeben

- die 4 '#Warning' - Einträge entfernen

```
- Root=>Booter=>Quirks
  DevirtualiseMmio      True
  EnableWriteUnprotector False
  ProtectUefiServices   True
  RebuildAppleMemoryMap True
  SetupVirtualMap       False
  SyncRuntimePermissions True
```

```
- Root=>DeviceProperties=>Add
```

```
- hinzufügen:
```

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN"
```

```
"http://www.apple.com/DTDs/PropertyList-1.0.dtd">
```

```
<plist version="1.0">
<dict>
  <key>PciRoot(0x0)/Pci(0x2,0x0)</key>
  <dict>
    <key>AAPL,ig-platform-id</key>
    <data>
      BwCbPg==
    </data>
    <key>framebuffer-patch-enable</key>
    <data>
      AQAAAA==
    </data>
    <key>framebuffer-stolenmem</key>
    <data>
      AAAwAQ==
    </data>
  </dict>
</dict>
</plist>
```

```
- hinzufügen:
```

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN"
```

```
"http://www.apple.com/DTDs/PropertyList-1.0.dtd">
```

```
<plist version="1.0">
<dict>
  <key>PciRoot(0x0)/Pci(0x1C,0x1)/Pci(0x0,0x0)</key>
  <dict>
    <key>device-id</key>
    <data>
      8hUAAA==
    </data>
  </dict>
</dict>
</plist>
```

```
- Root=>Kernel=>Quirks
```

```
PanicNoKextDump      True
PowerTimeoutKernelPanic True
```

XhciPortLimit True

- Root=>Misc=>Debug

AppleDebug True
ApplePanic True
DisableWatchDog True
Target 67

- Root=>Misc=>Security

AllowNvramReset True
AllowSetDefault True
ScanPolicy 0
SecureBootModel Default

This is a word and is case-sensitive, set to Disabled if you do not want secure boot(ie. you require Nvidia's Web Drivers)

Vault Optional

This is a word, it is not optional to omit this setting. You will regret it if you don't set it to Optional, note that it is case-sensitive

- Root=>NVRAM=>Add=>7C436110-AB2A-4BBB-A880-FE41995C9F82

boot-args -v keepsyms=1 debug=0x100 alcid=1
prev-lang:kbd <>

- '/Users/Shared/DATEN/Archiv/MAC/OS

X/Hackintosh/OpenCore/GenSMBIOS/GenSMBIOS.command' starten

- 1. Install/Update MacSerial

- 3. Generate SMBIOS

'iMac20,1 1'

Type: iMac20,1
Serial: 123456789012
Board Serial: 12345678901234567
SmUUID: 12345678-1234-1234-1234-123456789012

- '/Volumes/EFI/EFI/OC/config.plist' mit '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/ProperTree/ProperTree.app' bearbeiten

- Root=>PlatformInfo=>Generic

SystemProductName iMac20,1
SystemSerialNumber 123456789012
MLB 12345678901234567
SystemUUID 12345678-1234-1234-1234-123456789012
ROM 11223344 5566 (entspricht MAC Adress vom Hackintosh

X490 Board => 11:22:33:44:55:66)

- Root=>UEFI

4. OC GUI auf Boot Stick installieren

- analog <<https://dortania.github.io/OpenCore-Post-Install/cosmetic/gui.html#setting-up-opencore-s-gui>>

- Download 'OcBinaryData-master.zip' von <<https://github.com/acidanthera/OcBinaryData>> nach '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore'
- Entpacken nach '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/OcBinaryData'

- 'sudo cp -r /Users/Shared/DATEN/Archiv/MAC/OS\ X/Hackintosh/OpenCore/OcBinaryData/Resources/* /Volumes/EFI/EFI/OC/Resources/'

- 'sudo cp -r /Users/Shared/DATEN/Archiv/MAC/OS\ X/Hackintosh/OpenCore/OpenCore-0.6.2/X64/EFI/OC/Drivers/OpenCanopy.efi /Volumes/EFI/EFI/OC/Drivers'

- '/Volumes/EFI/EFI/OC/config.plist' mit '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/ProperTree/ProperTree.app' bearbeiten

- Root=>Misc=>Boot

- PickerMode External
 - PickerAttributes 1 (war schon)

- Root=>UEFI=>Drivers

- add OpenCanopy.efi

- <?xml version="1.0" encoding="UTF-8"?>

- <!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN"

- "http://www.apple.com/DTDs/PropertyList-1.0.dtd">

- <plist version="1.0">

- <array>

- <string>OpenCanopy.efi</string>

- </array>

- </plist>

5. Boot 'Install macOS Catalina' über OC Stick

- Festplattendienstprogramm

- Partitionieren: OS X, APFS, GUID

- Installation OS X 10.15.7 per App

- Zielvolume: OS X

6. OC auf OS X SSD installieren

- 'diskutil List'

- /dev/disk0 (internal, physical):

- | #: | TYPE | NAME | SIZE | IDENTIFIER |
|----|------------|------------------|----------|------------|
| 0: | GUID | partition_scheme | *4.0 TB | disk0 |
| 1: | EFI | EFI | 209.7 MB | disk0s1 |
| 2: | Apple_APFS | Container disk2 | 4.0 TB | disk0s2 |

- /dev/disk3 (internal, physical):

- | #: | TYPE | NAME | SIZE | IDENTIFIER |
|----|-----------|------------------------|----------|------------|
| 0: | GUID | partition_scheme | *32.0 GB | disk3 |
| 1: | EFI | EFI | 209.7 MB | disk3s1 |
| 2: | Apple_HFS | Install macOS Catalina | 31.7 GB | disk3s2 |

- 'sudo diskutil mount disk0s1'

- 'sudo diskutil mount disk3s1'

- 'mount'

- /dev/disk0s1 on /Volumes/EFI (msdos, asynchronous, local, noowners)

/dev/disk3s1 on /Volumes/EFI 1 (msdos, local, nodev, nosuid, noowners)

- 'Volumes/EFI\ 1/EFI' nach '/Volumes/EFI/EFI' kopieren

1. OC auf der SSD => Disable Debug & Logging

- EFI-Partition der SSD mounten

- 'diskutil list'

/dev/disk0 (internal, physical):

#:	TYPE NAME	SIZE	IDENTIFIER
0:	GUID_partition_scheme	*4.0 TB	disk0
1:	EFI EFI	209.7 MB	disk0s1
2:	Apple_APFS Container disk2	4.0 TB	disk0s2

- 'sudo diskutil mount disk0s1'

- Logfiles löschen

- 'sudo rm /Volumes/EFI/opencore*'

- '/Volumes/EFI/EFI/OC/config.plist' mit '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/ProperTree/ProperTree.app' bearbeiten

- Root=>Misc=>Debug

AppleDebug	False
ApplePanic	False
Target	0

- '/Volumes/EFI/EFI/OC/config.plist' mit '/Users/Shared/DATEN/Archiv/MAC/OS X/Hackintosh/OpenCore/ProperTree/ProperTree.app' bearbeiten

- Root=>NVRAM=>Add=>7C436110-AB2A-4BBB-A880-FE41995C9F82
boot-args keepsyms=1 debug=0x100 alcid=1