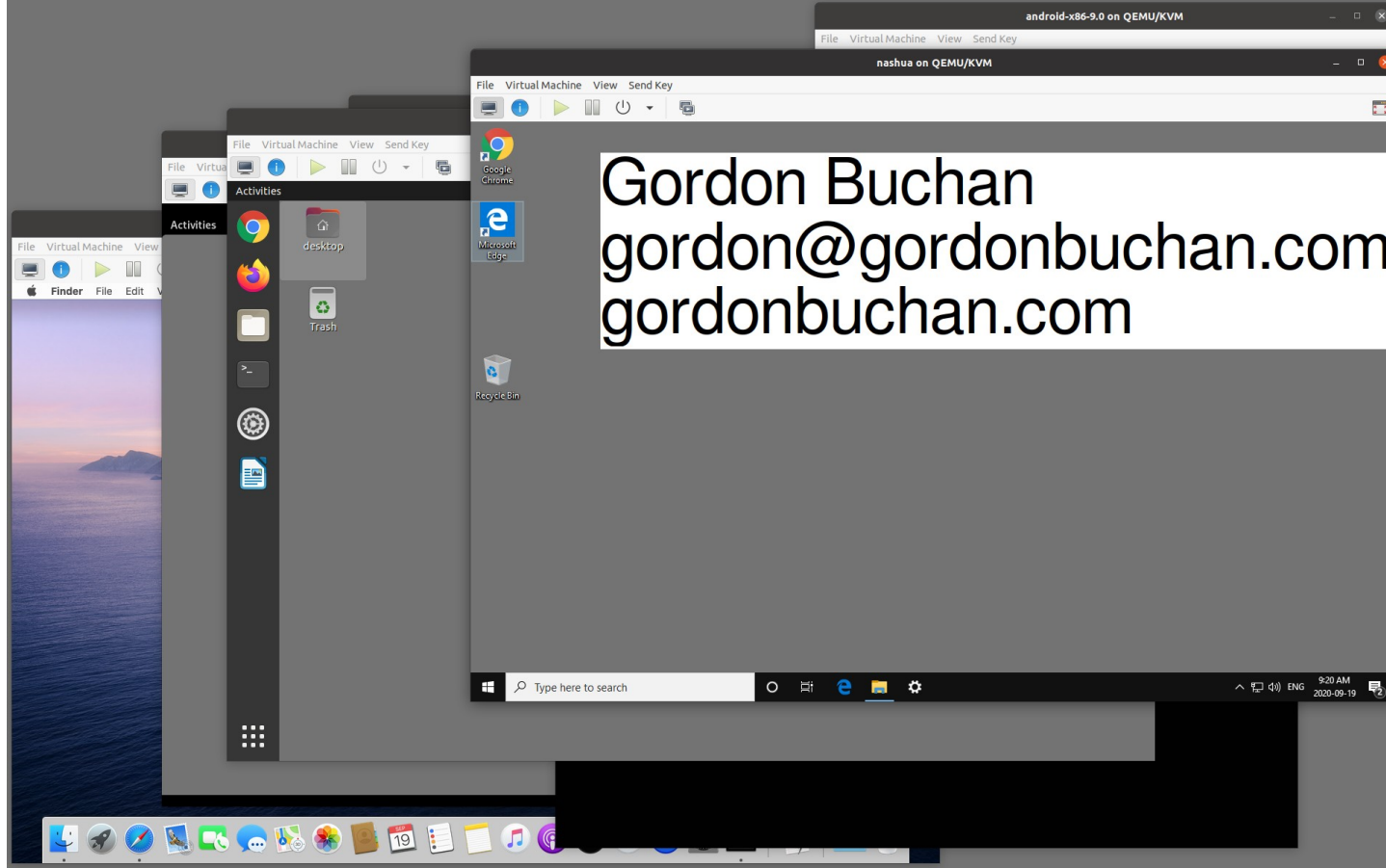
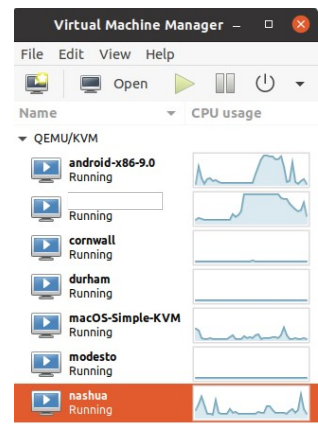




Atelier Linux KVM Windows MacOS

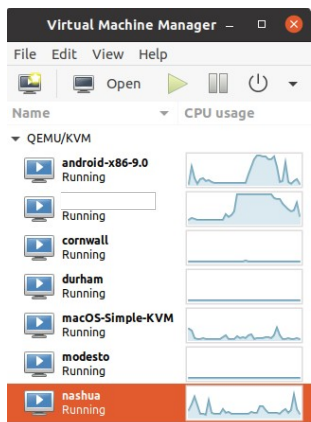
Gordon Buchan
gordon@gordonbuchan.com
gordonbuchan.com





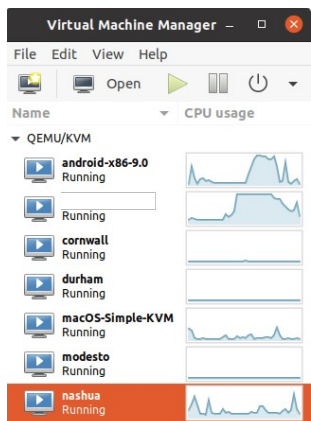
KVM machines virtuelles vue d'ensemble

- Ressources système requises
- Outils d'administration
- Machine virtuelle Linux
- Machine virtuelle Windows
- USB device redirection
- Réseau
- Machine virtuelle MacOS
- Machine virtuelle Android
- Liens vers les ressources





Ressources système requises



Spécifications minimales:

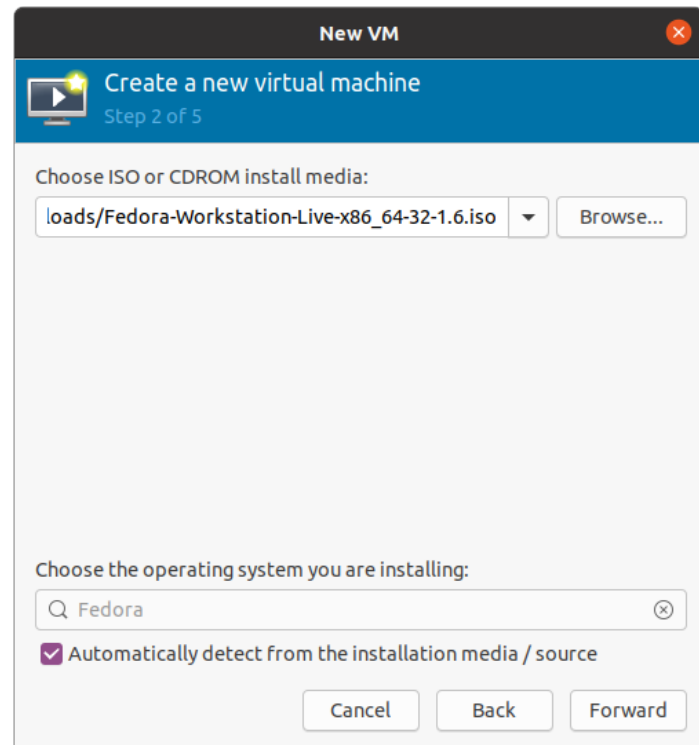
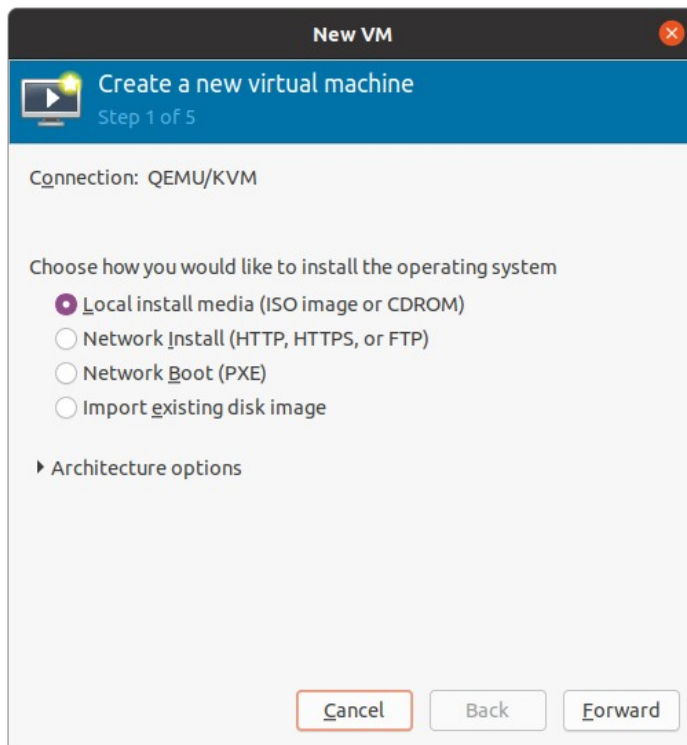
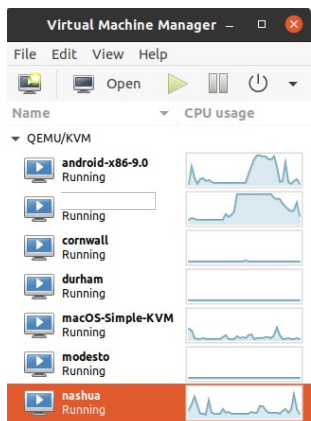
i5, 8GO mémoire, 256GO stockage SSD

Spécifications suggérées:

i7, 16GO mémoire, 512GO stockage SSD



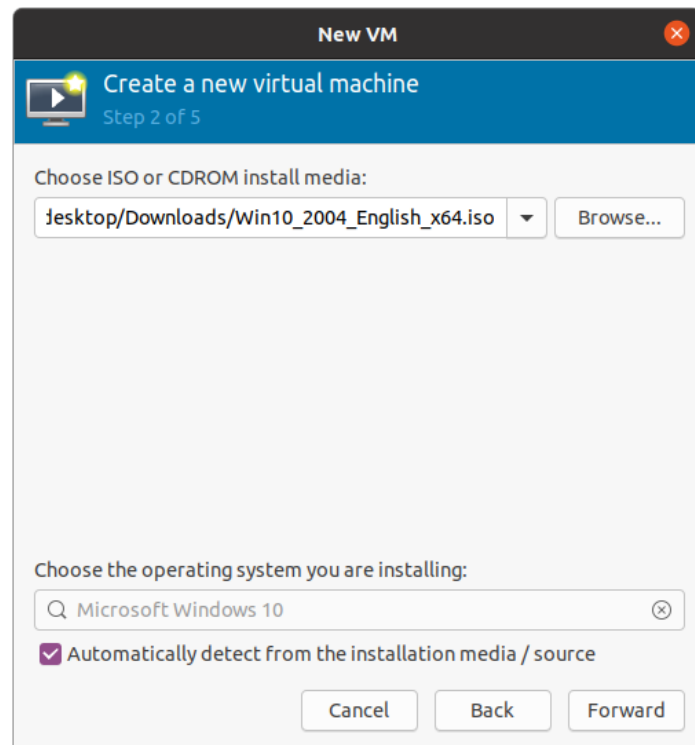
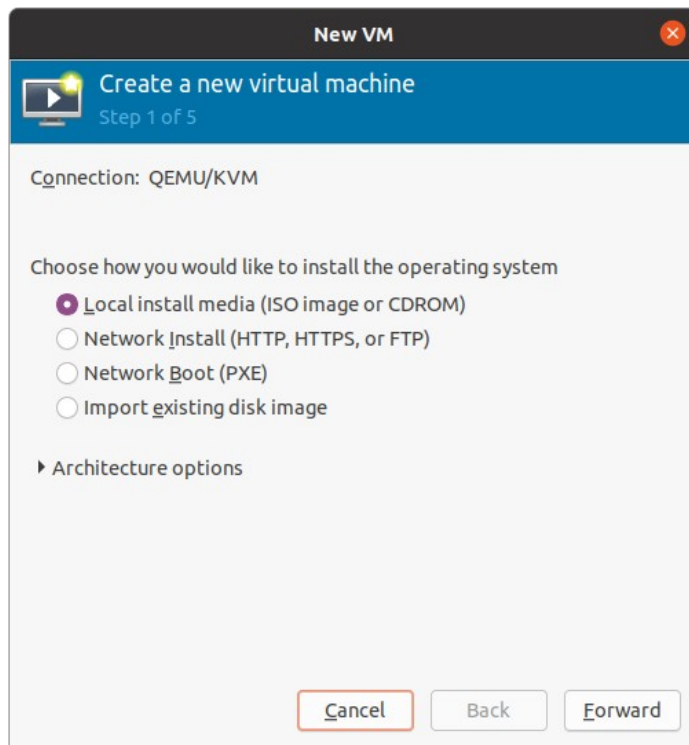
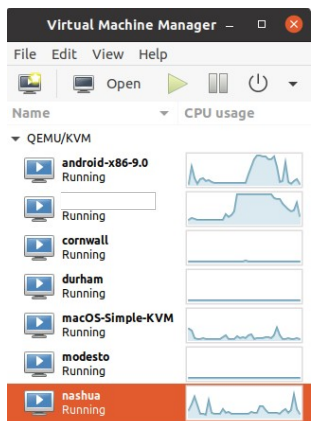
Machine virtuelle Linux ISO





Machine virtuelle Windows ISO

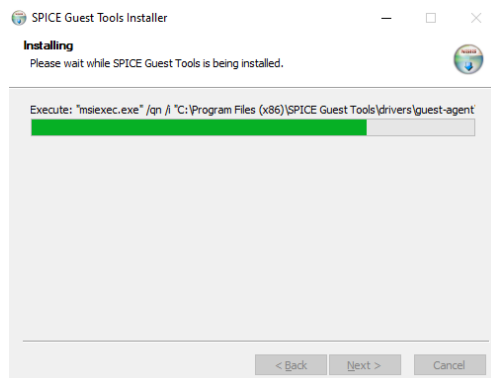
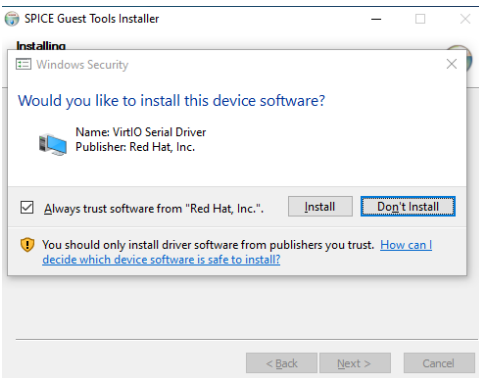
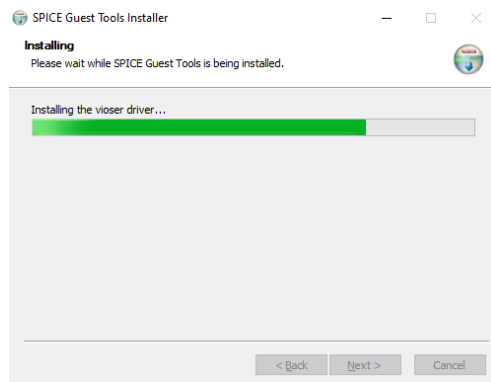
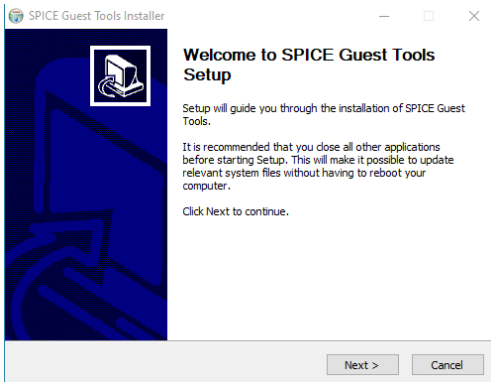
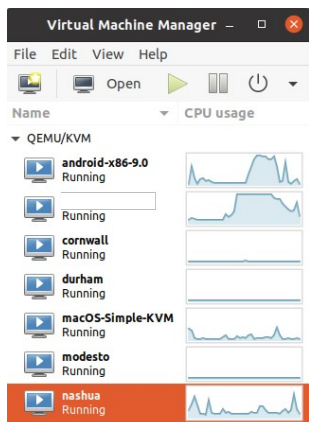
réf: <https://www.microsoft.com/en-ca/software-download/windows10ISO>





Machine virtuelle Windows SPICE guest tools

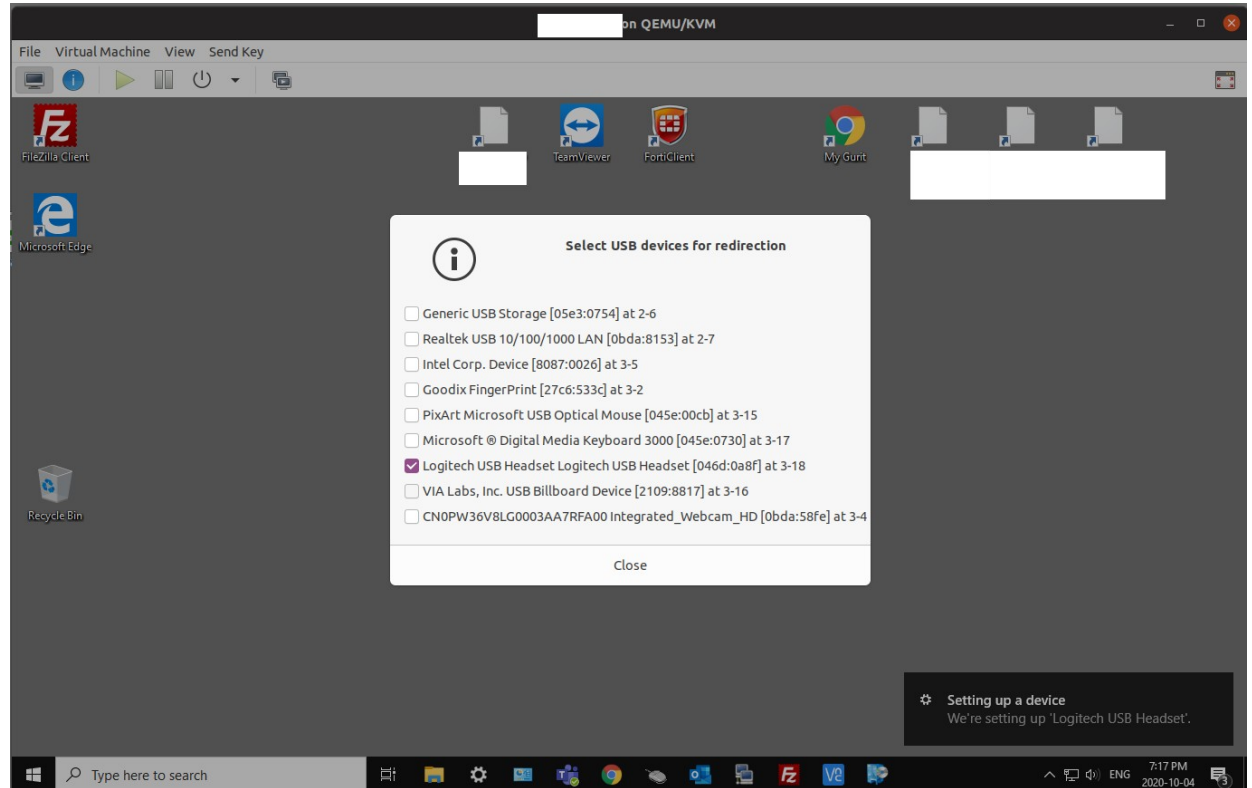
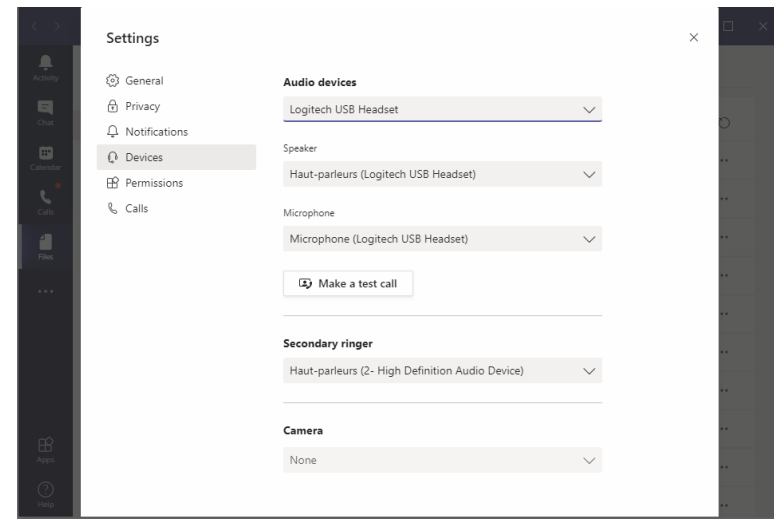
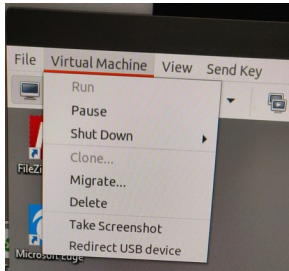
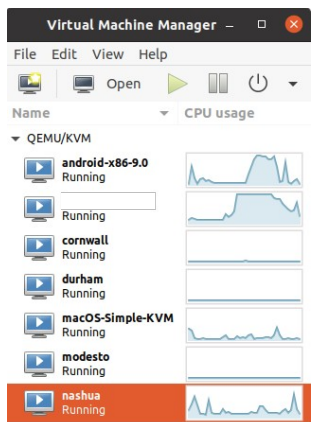
réf: <https://www.spice-space.org/download.html>

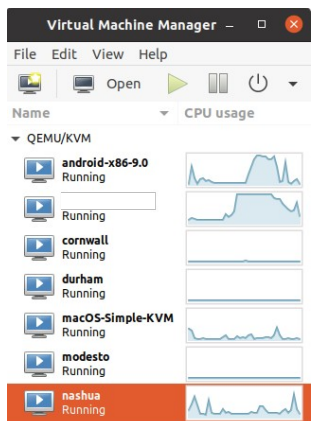


- Computer
 - ACPI x64-based PC
- Disk drives
 - QEMU HARDDISK ATA Device
- Display adaptors
 - Red Hat QXL controller



USB device redirection





Réseau

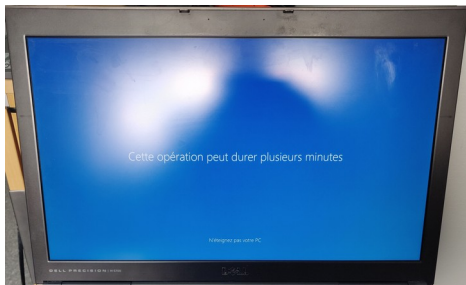
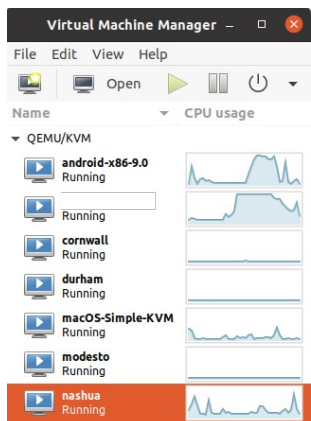
NAT

192.168.122.x

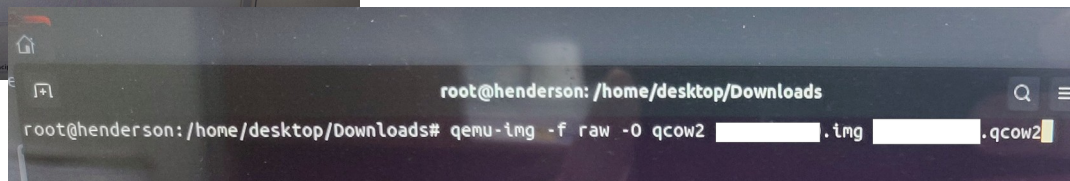
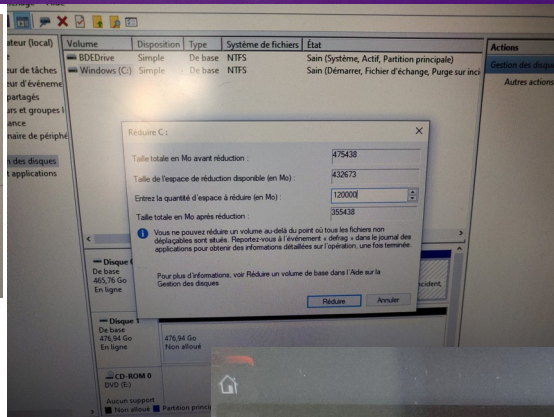
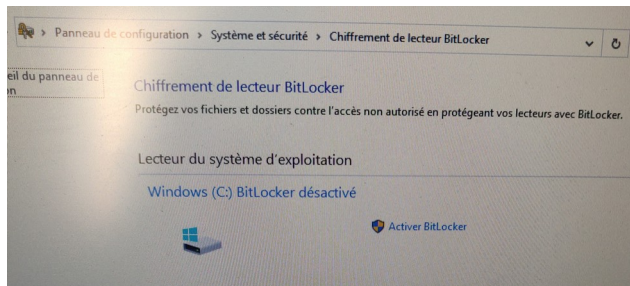
macvtap (bridge mode)



Machine virtuelle Windows dd .img (1/2)

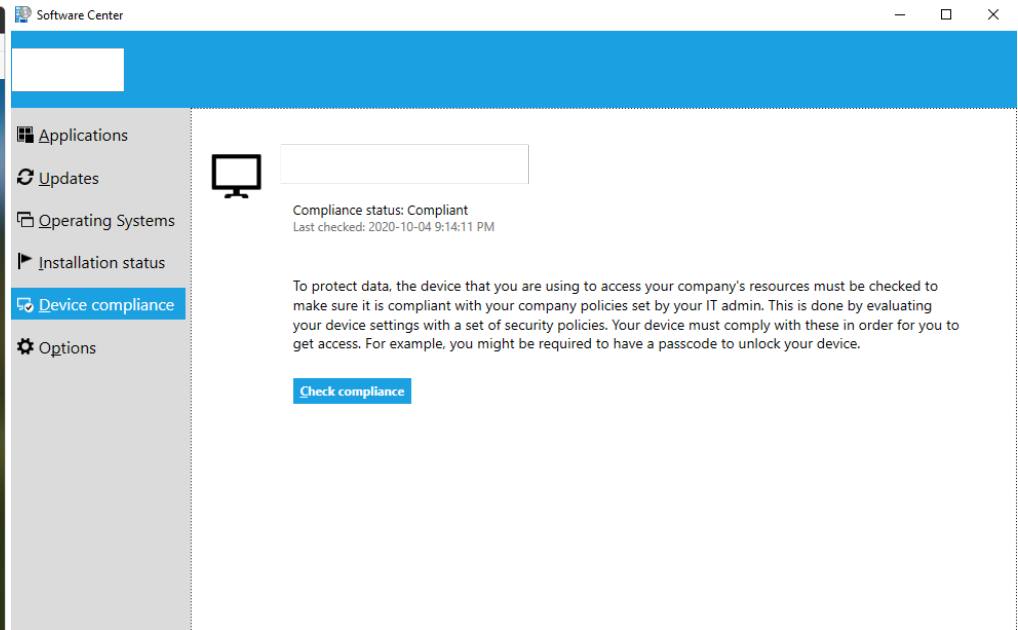
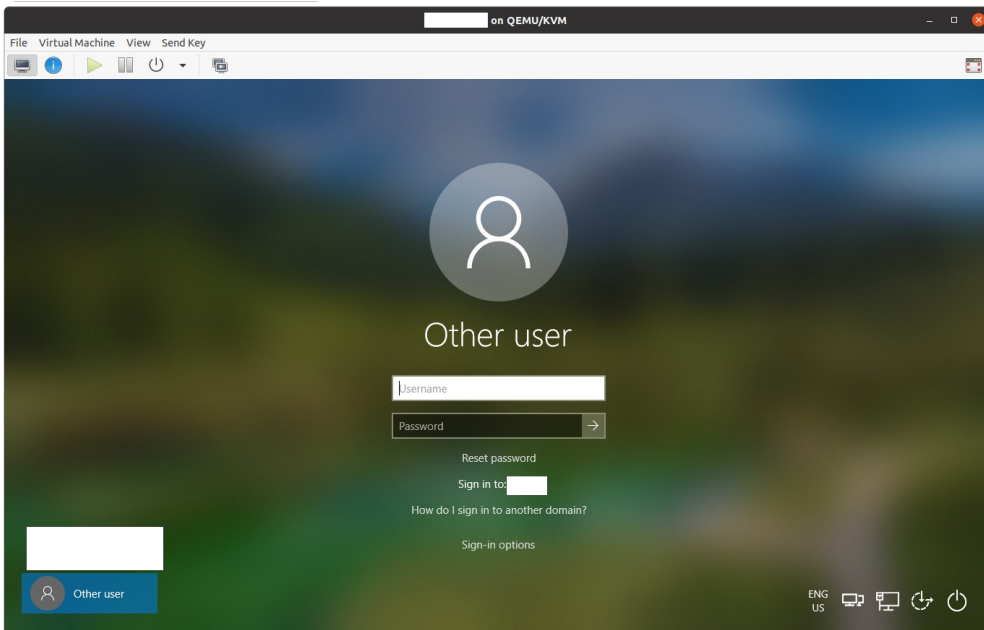
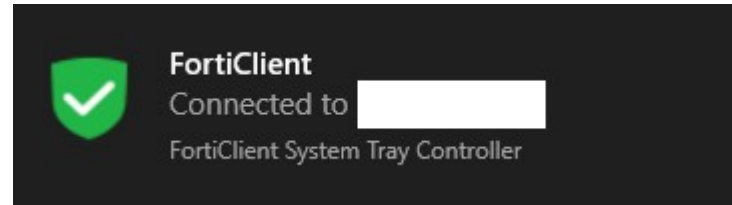
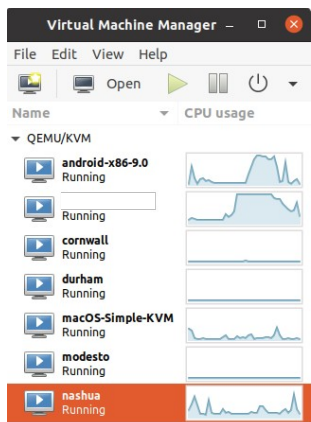


```
// [redacted] /Downloads 720340024 44945916 675394108 7% /mnt/hendersondownloads
root@ubuntu:/mnt/hendersondownloads# dd if=/dev/sda of=/mnt/hendersondownloads/[redacted].img
```





Machine virtuelle Windows dd .img (2/2)



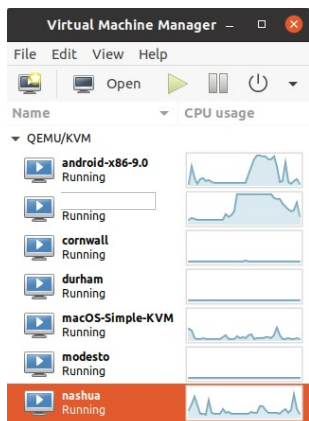


Machine virtuelle MacOS

MacOS-Simple-KVM

réf: <https://github.com/foxlet/macOS-Simple-KVM>

réf: <https://passthroughpo.st/new-and-improved-mac-os-tutorial-part-1-the-basics/>



```
sudo su
```

```
apt-get install qemu-system qemu-utils python3 python3-pip git
```

```
git clone https://github.com/foxlet/macOS-Simple-KVM.git  
cd macOS-Simple-KVM
```

```
./jumpstart.sh --catalina  
qemu-img create -f qcow2 MyDisk.qcow2 64G
```

```
ajouter à la fin du fichier basic.sh:  
-drive id=SystemDisk,if=none,file=MyDisk.qcow2 \  
-device ide-hd,bus=sata.4,drive=SystemDisk \  

```

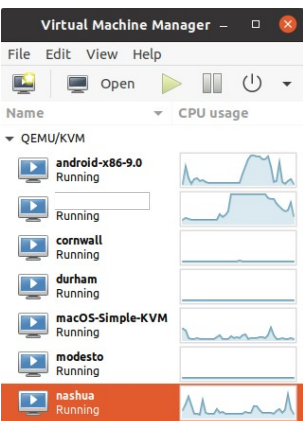
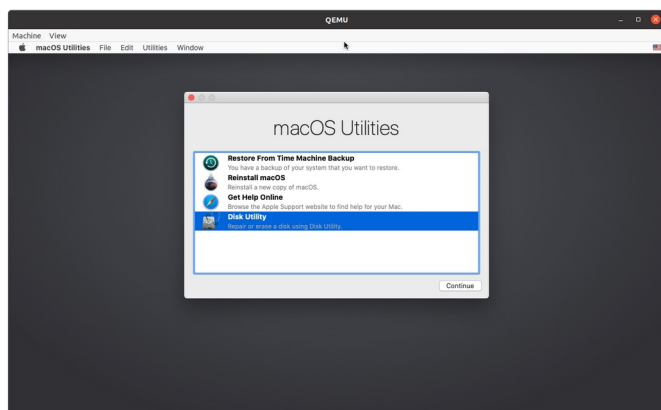
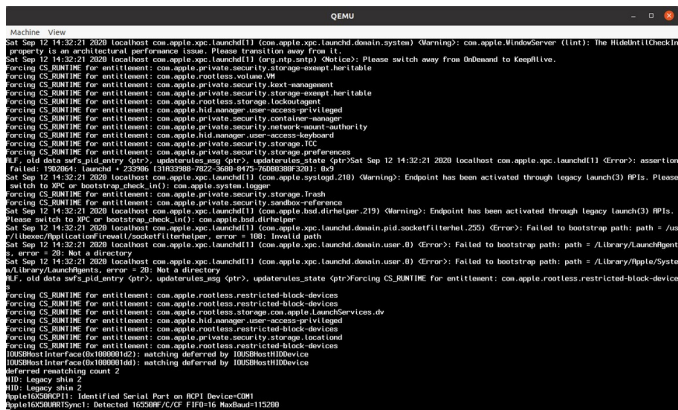
```
./basic.sh
```



Machine virtuelle MacOS

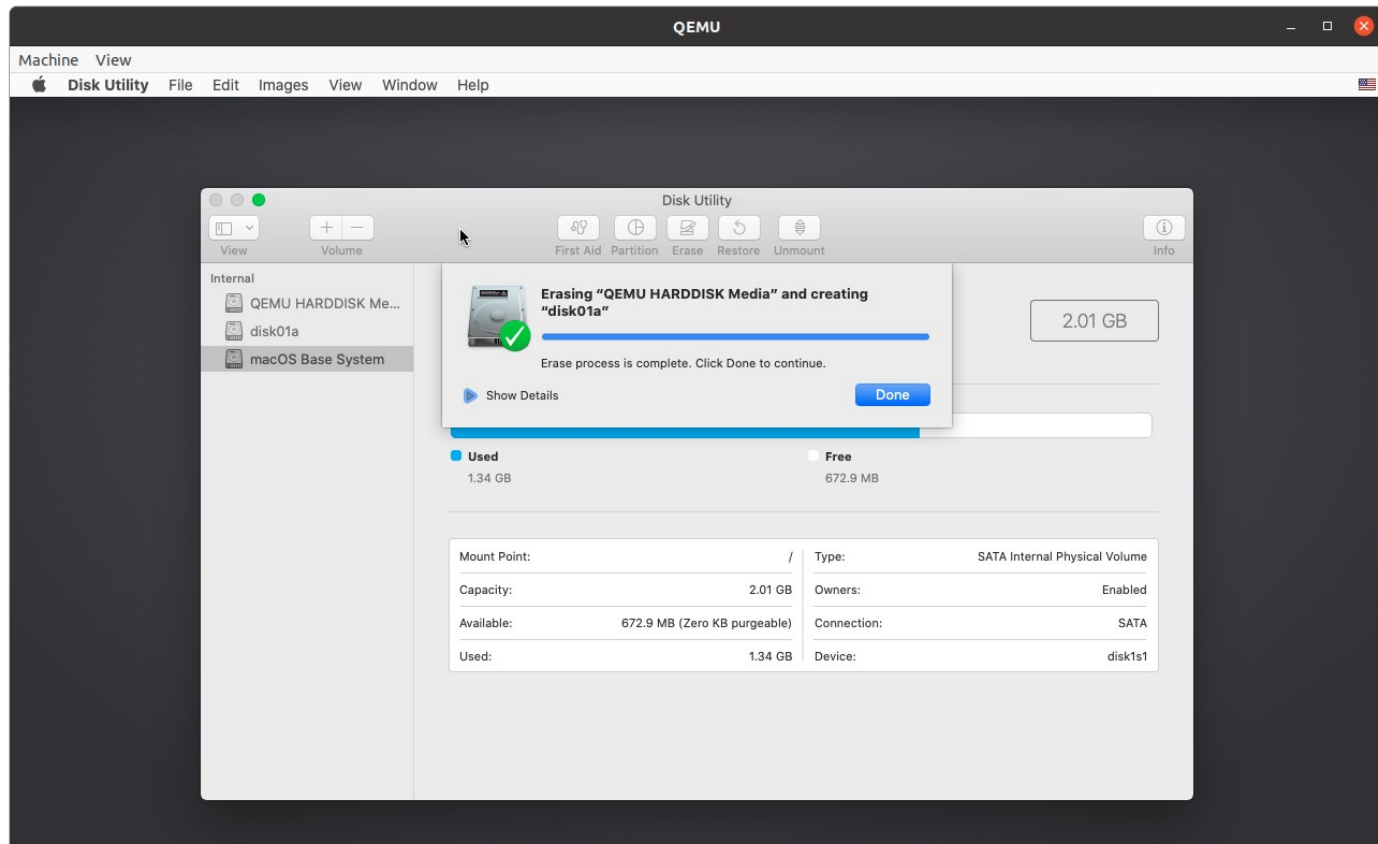
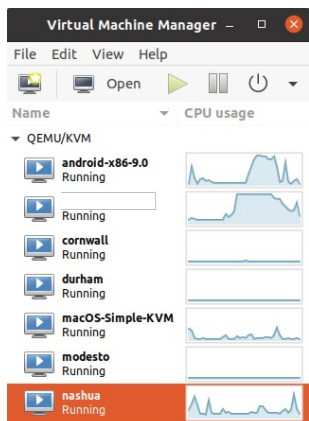
./basic.sh

./basic.sh

[illegible]

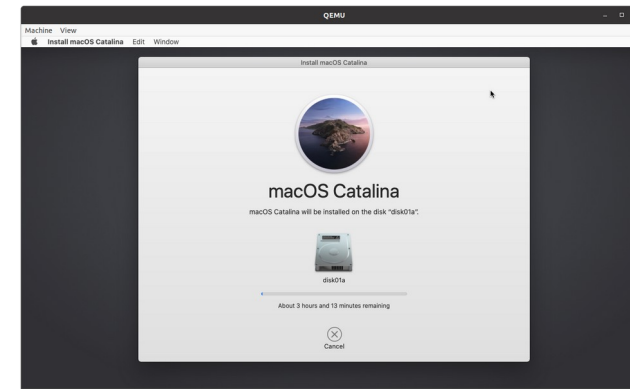
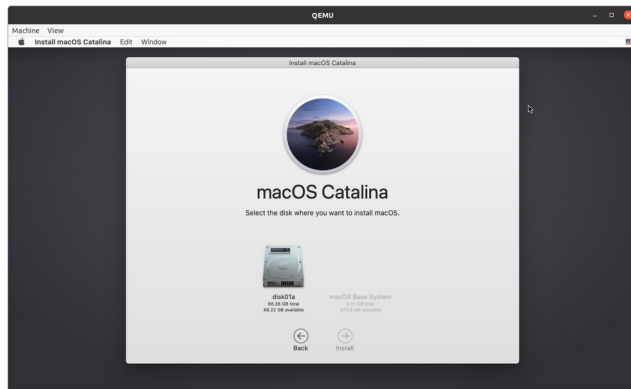
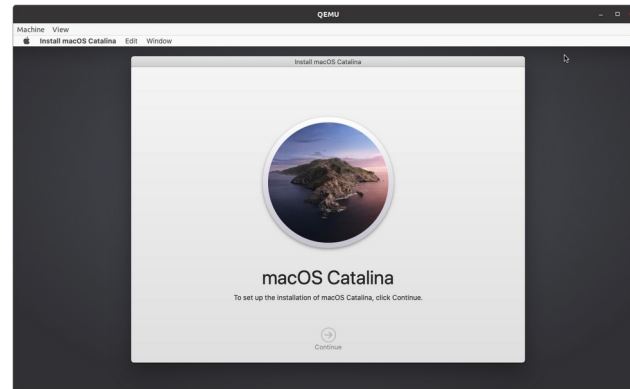
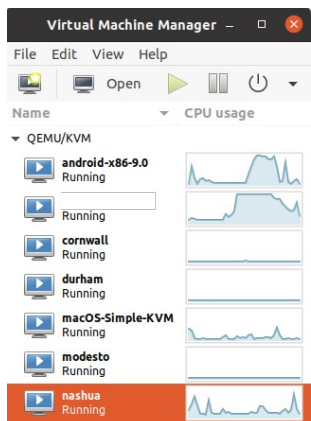


Machine virtuelle MacOS répartition avec Disk Utility

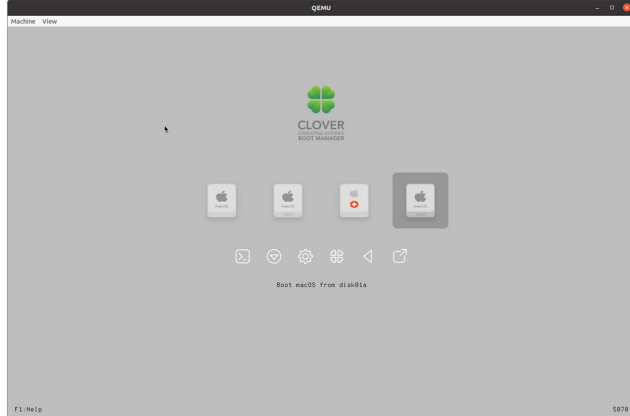




Machine virtuelle MacOS Configuration MacOS



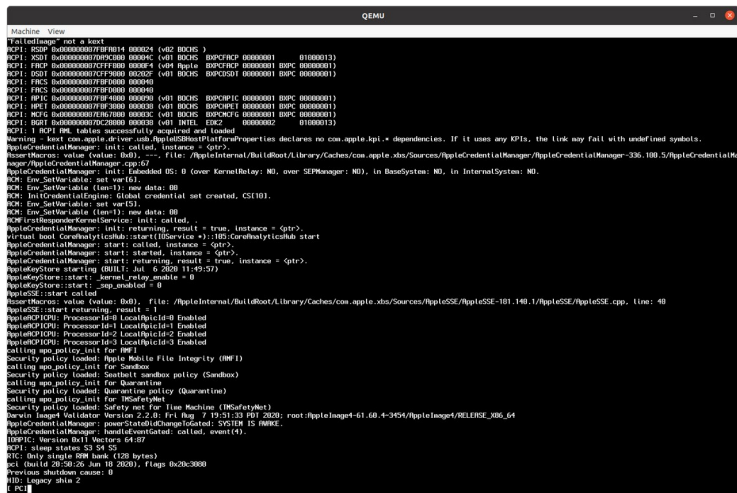
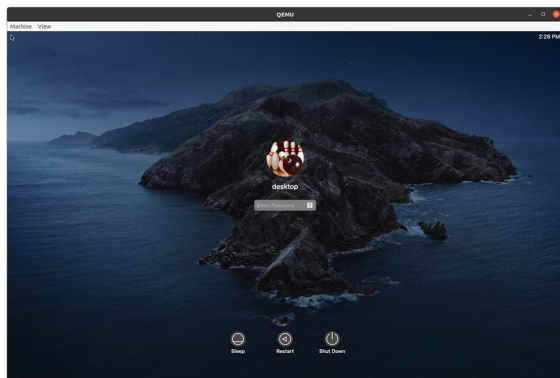
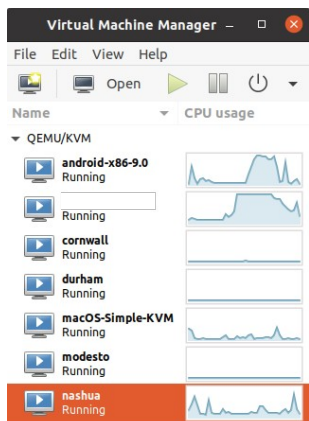
Montréal





Machine virtuelle MacOS

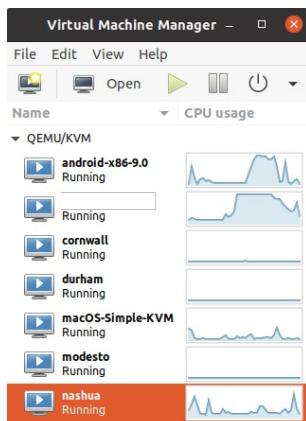
Connexion MacOS





Machine virtuelle MacOS

Arrêt MacOS



```

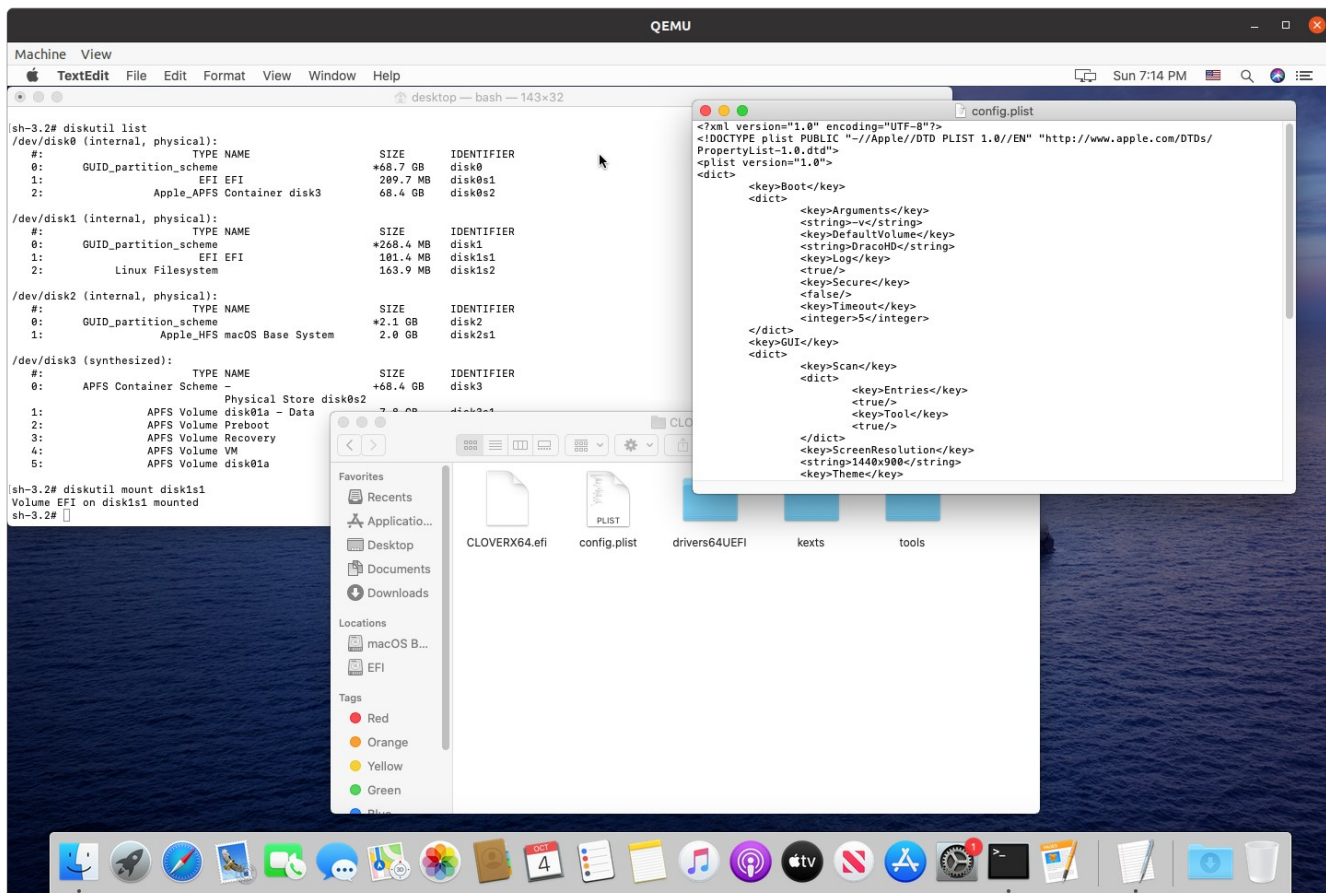
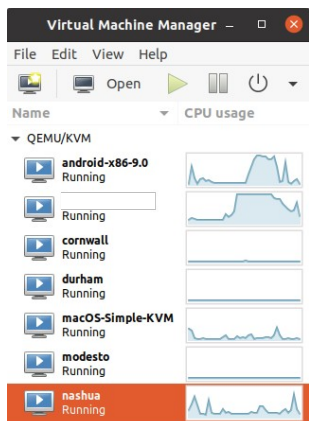
Machine View
"FailedImage" not a kext
ACPI: RSDP 0x000000007FBFA014 000024 (v02 BOCHS )
ACPI: XSDT 0x000000007D99C000 00004C (v01 BOCHS BXPFCFACP 00000001 01000013)
ACPI: FACP 0x000000007CFF9000 0000F4 (v04 Apple BXPFCFACP 00000001 BXP 00000001)
ACPI: DSDT 0x000000007CFF9000 00202F (v01 BOCHS BXPDCSDT 00000001 BXP 00000001)
ACPI: FACS 0x000000007FBFD000 000040
ACPI: FACS 0x000000007FBFD000 000040
ACPI: APIC 0x000000007FBFA000 000090 (v01 BOCHS BXPFCAPIC 00000001 BXP 00000001)
ACPI: HPET 0x000000007FBFA000 000038 (v01 BOCHS BXPCHPET 00000001 BXP 00000001)
ACPI: MCFG 0x000000007E670000 00003C (v01 BOCHS BXPCHCFG 00000001 BXP 00000001)
ACPI: BGRT 0x000000007DC20000 000038 (v01 INTEL EDK2 00000002 01000013)
ACPI: 1 ACPI AML tables successfully acquired and loaded
Warning - kext com.apple.driver.usb.AppleUSBHostPlatformProperties declares no com.apple.kpi.* dependencies. If it uses any KPIs, the link may fail with undefined symbols.
AppleCredentialManager: init: called, instance = <ptr>.
AssertMacros: value (value: 0x0), file: /AppleInternal/BuildRoot/Library/Caches/com.apple.xbs/Sources/AppleCredentialManager/AppleCredentialManager-336.100.5/AppleCredentialMa
nager/AppleCredentialManager.cpp:67
AppleCredentialManager: init: Embedded OS: 0 (over KernelRelay: NO, over SEPManager: NO), in BaseSystem: NO, in InternalSystem: NO.
ACM: Env_SetVariables: set var[6].
ACM: Env_SetVariable (len=1): new data: 00
ACM: InitCredentialEngine: Global credential set created, CS[10].
ACM: Env_SetVariable: set var[5].
ACM: Env_SetVariable (len=1): new data: 00
ACMFirstResponderKernelService: init: called, .
AppleCredentialManager: init: returning, result = true, instance = <ptr>.
virtual bool CoreAnalyticsHub::start(IOService *)::105:CoreAnalyticsHub start
AppleCredentialManager: start: called, instance = <ptr>.
AppleCredentialManager: start: started, instance = <ptr>.
AppleCredentialManager: start: returning, result = true, instance = <ptr>.
AppleKeyStore starting (BUILT: Jul 6 2020 11:49:57)
AppleKeyStore: start: _kernel_relay_enable = 0
AppleKeyStore: start: _sep_enabled = 0
AppleSSE::start called
AssertMacros: value (value: 0x0), file: /AppleInternal/BuildRoot/Library/Caches/com.apple.xbs/Sources/AppleSSE/AppleSSE-181.140.1/AppleSSE/AppleSSE.cpp, line: 40
AppleSSE::start returning, result = 1
AppleRCPCPU: ProcessorId=0 LocalApicId=0 Enabled
AppleRCPCPU: ProcessorId=1 LocalApicId=1 Enabled
AppleRCPCPU: ProcessorId=2 LocalApicId=2 Enabled
AppleRCPCPU: ProcessorId=3 LocalApicId=3 Enabled
calling mpo_policy_init for RMFI
Security policy loaded: Apple Mobile File Integrity (RMFI)
calling mpo_policy_init for Sandbox
Security policy loaded: Seatbelt sandbox policy (Sandbox)
calling mpo_policy_init for Quarantine
Security policy loaded: Quarantine policy (Quarantine)
calling mpo_policy_init for TMSafetyNet
Security policy loaded: Safety net for Time Machine (TMSafetyNet)
Darwin Image4 Validator Version 2.2.0: Fri Aug 7 19:51:33 PDT 2020; root:AppleImage4-61.60.4-3454/AppleImage4/RELEASE_X86_64
AppleCredentialManager: powerStateDidChangeToGated: SYSTEM IS AWAKE.
AppleCredentialManager: handleEventGated: called, event(4).
IOAPIC: Version 0x11 Vectors 64:87
ACPI: sleep states S3 S4 S5
RTC: Only single RAM bank (128 bytes)
pci (build 20:50:26 Jun 10 2020), flags 0x20c3000
Previous shutdown cause: 0
HID: Legacy sh1a 2
[ PCI]

```



Machine virtuelle MacOS

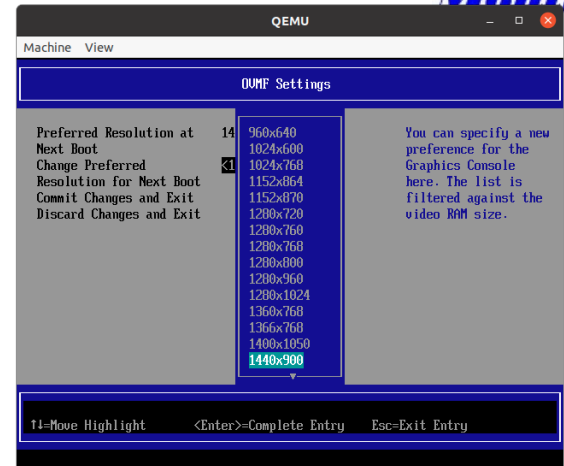
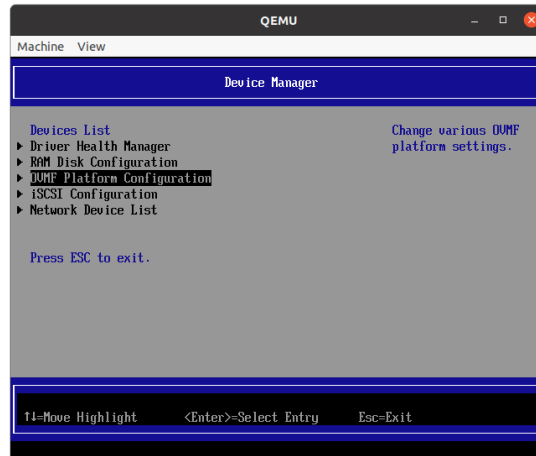
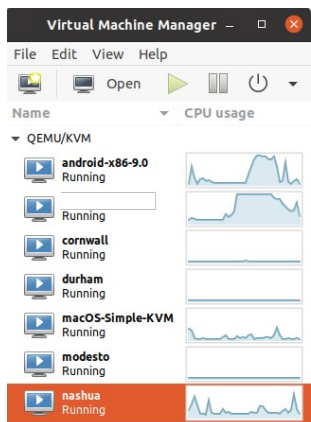
MacOS résolution 1/2





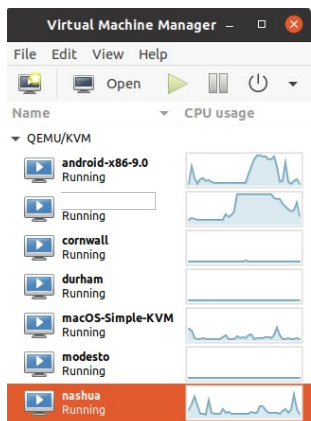
Machine virtuelle MacOS

MacOS résolution 2/2





Machine virtuelle MacOS virt-manager 1/4



```
./make.sh --add .
```

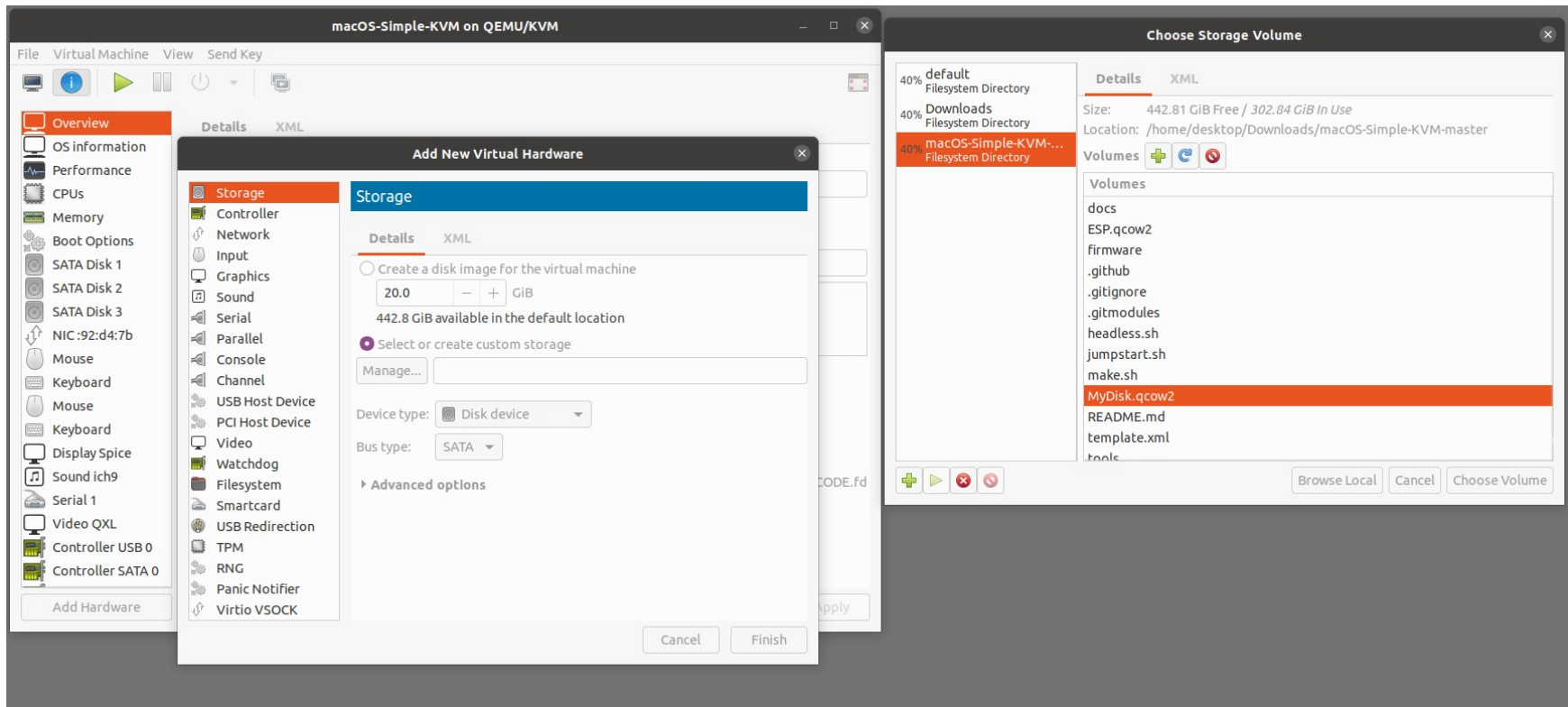
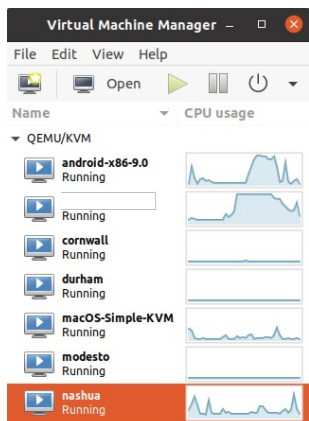
(réf: <https://github.com/foxlet/macOS-Simple-KVM>)

After running the above command, add MyDisk.qcow2 as storage in the properties of the newly added entry for VM.

Après avoir exécuté la commande ci-dessus, ajoutez MyDisk.qcow2 comme stockage dans les propriétés de l'entrée nouvellement ajoutée pour VM.

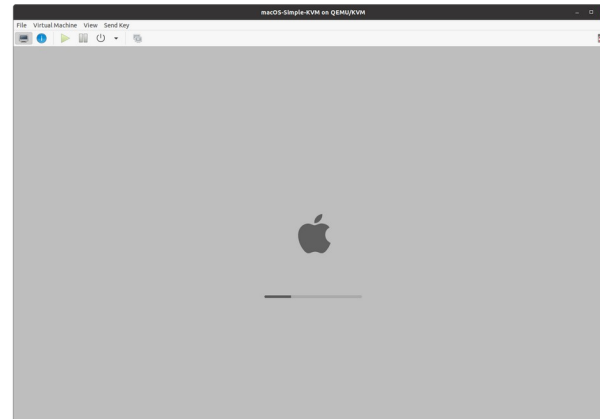
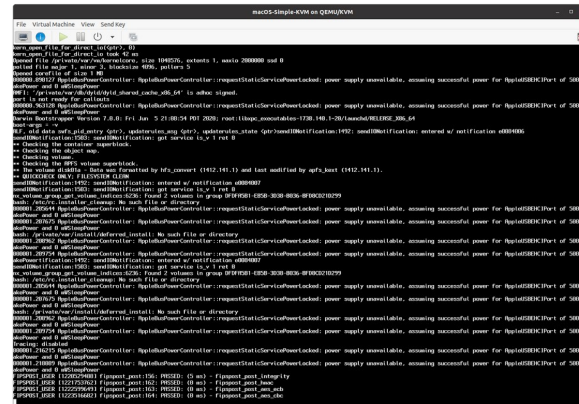
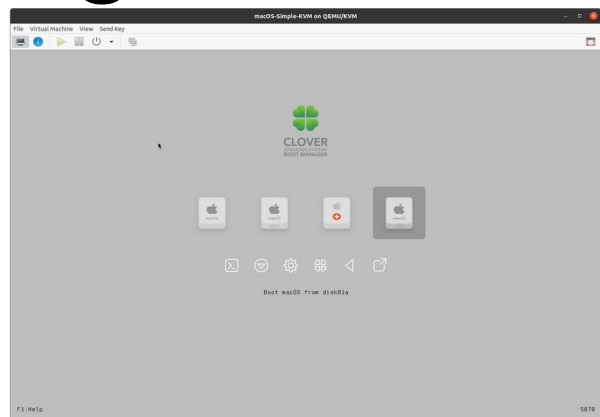
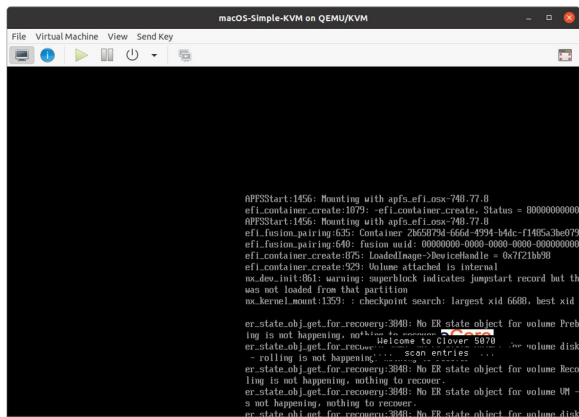
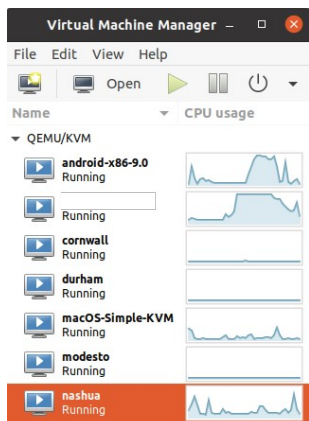


Machine virtuelle MacOS virt-manager 2/4



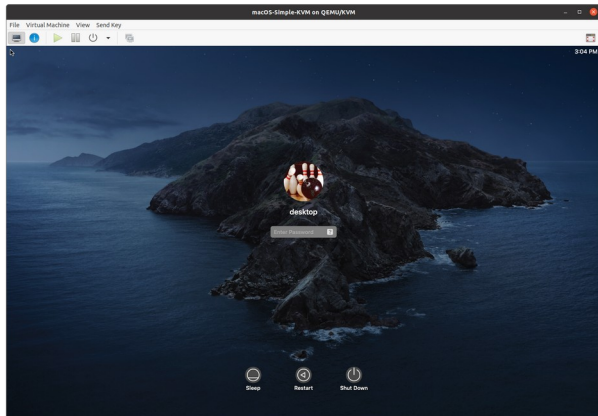
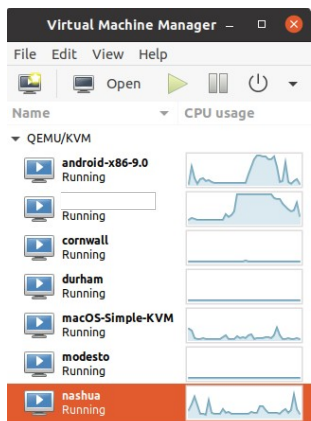


Machine virtuelle MacOS virt-manager 3/4





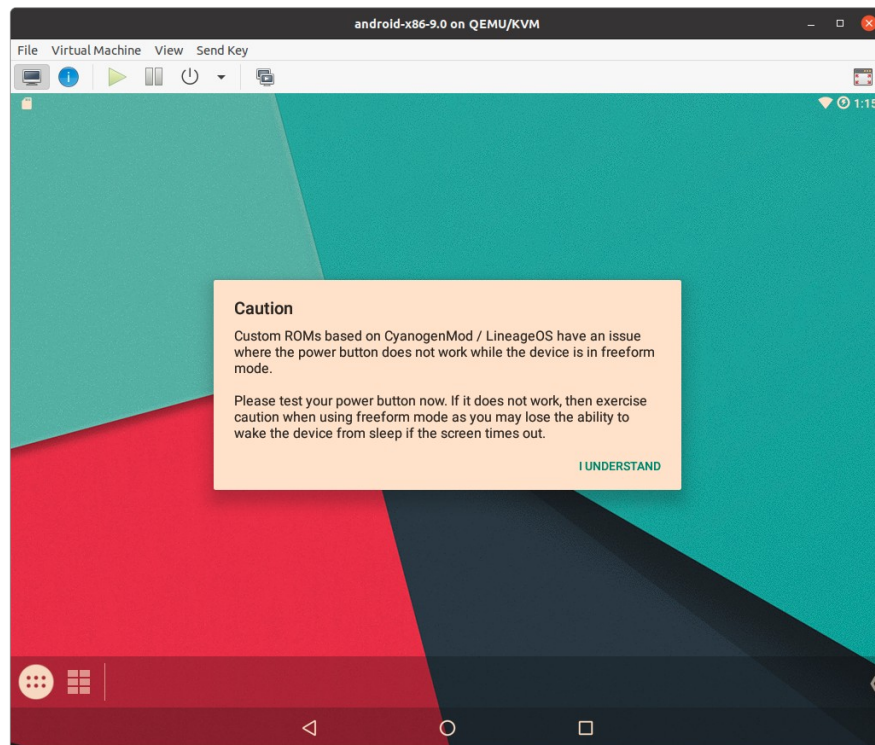
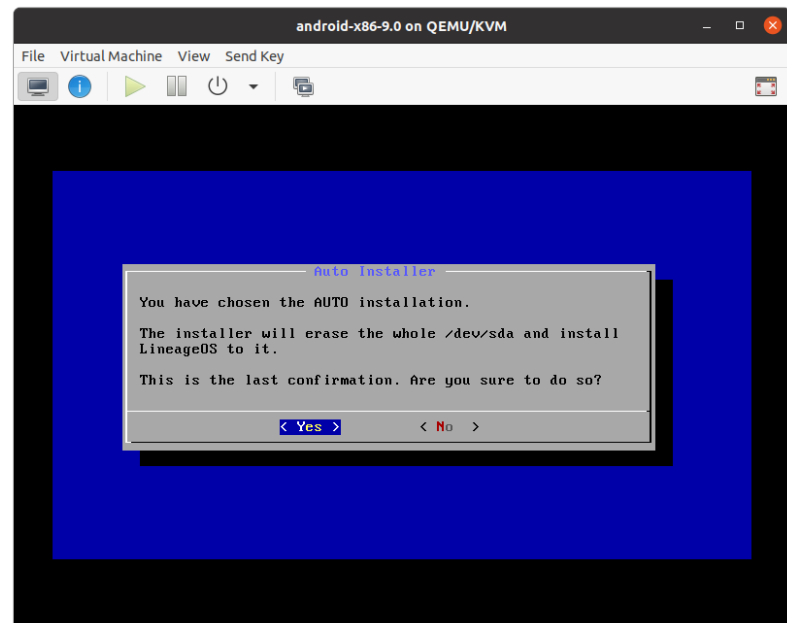
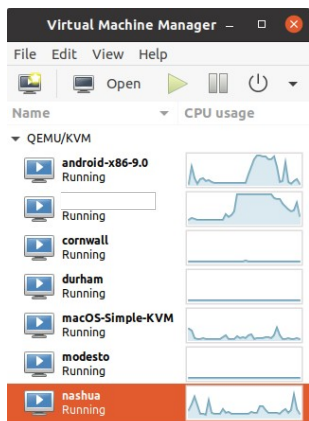
Machine virtuelle MacOS virt-manager 4/4





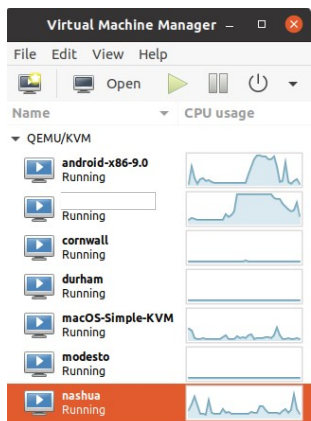
Machine virtuelle Android x86_64

réf: <https://www.fosshub.com/Android-x86.html>





Liens vers les ressources



<https://www.microsoft.com/en-ca/software-download/windows10ISO>

<https://www.spice-space.org/download.html>

<https://github.com/foxlet/macOS-Simple-KVM>

<https://passthroughpo.st/new-and-improved-mac-os-tutorial-part-1-the-basics/>

<https://www.fosshub.com/Android-x86.html>