7-USING "CLONEZILLA LIVE"

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Web location for this presentation:

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SUMMARY

Here are the actual steps for using the free "Clonezilla Live" to clone or image backup an existing hard drive or solid state drive (SSD).

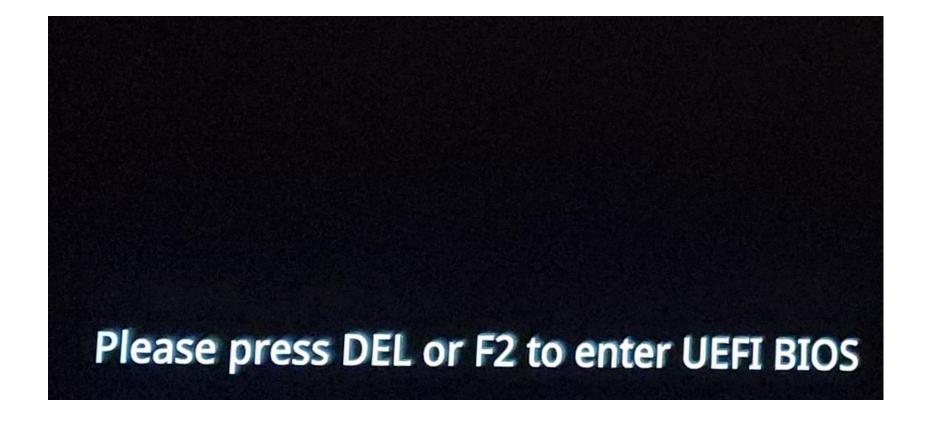
USING "CLONEZILLA LIVE"

- Determine the manufacturer's serial numbers for the "source drive" and the "target drive"
- Attach the bootable "CLONEZILLA LIVE" USB thumb drive or CD or DVD to the computer (and make sure that the bootable device is operational)

If the computer is powered up, shut it down. (Many computers will not boot up to a bootable flash drive or a bootable CD or DVD if you do a restart from an operating system that is running.)

If the computer is powered up, shut it down. (Many computers will not boot up to a bootable flash drive or a bootable CD or DVD if you do a restart from an operating system that is running.)

- Power up or reboot the computer
- Press the key(s) needed to get into the firmware setup for selecting the bootable device







Boot Manager

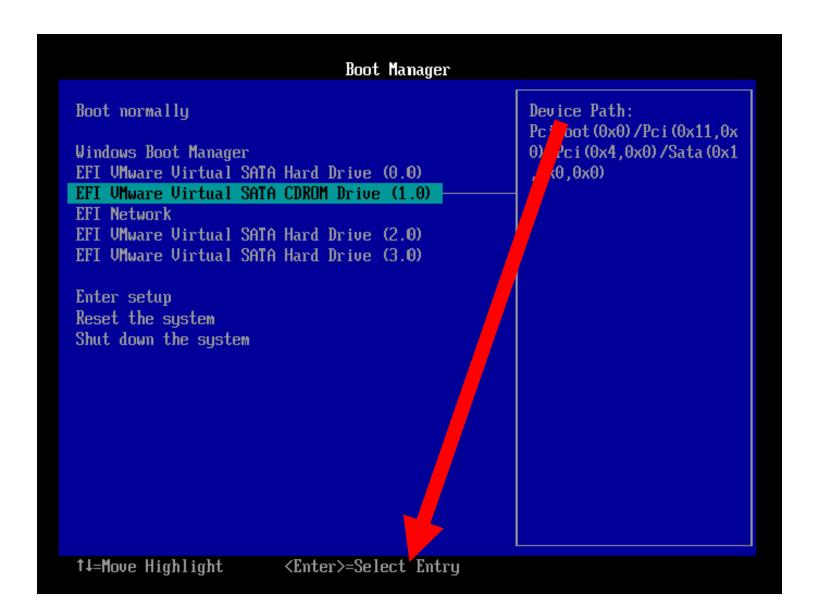
Boot normally

```
Windows Boot Manager
EFI VMware Virtual SATA Hard Drive (0.0)
EFI VMware Virtual SATA CDROM Drive (1.0)
EFI Network
EFI VMware Virtual SATA Hard Drive (2.0)
EFI VMware Virtual SATA Hard Drive (3.0)
```

Enter setup Reset the system Shut down the system

Boot Manager

```
Boot normally
Windows Boot Manager
EFI UMware Virtual SATA Hard Drive
EFI UMware Virtual SATA CDROM Drive (1.0)
EFI Network
EFI UMware Virtual SATA Hard Drive (2.0)
EFI UMware Virtual SATA Hard Drive (3.0)
Enter setup
Reset the system
Shut down the system
```



- Use the mouse or keyboard to highlight the bootable "Rescuezilla" device
- Then press the Enter key of the keyboard

*Clonezilla live (VGA 800x600) Clonezilla live (VGA 800x600 & To RAM) Clonezilla live (VGA with large font & To RAM) Clonezilla live (Speech synthesis) Other modes of Clonezilla live Local operating system (if available) Memtester (VGA 800x600 & To RAM) Memtest using Memtest86+ Network boot via iPXE uEFI firmware setup Clonezilla live 3.1.1-27-amd64 info

Use the ↑ and ↓ keys to select which entry is highlighted.

Press enter to boot the selected OS, `e' to edit the commands before booting or `c' for a command-line.

The highlighted entry will be executed automatically in 29s Free Software Labs, National Center for High-Performance Computing, Taiwan

Use the ↑ and ↓ keys to select which entry is highlighted.

Press enter to boot the selected OS, `e' to edit the commands before booting The highlighted entry will be executed automatically in 29s

Free Software

High-Perform

```
*Clonezilla live (VGA 800x600)
Clonezilla live (VGA 800x600 & To RAM)
Clonezilla live (VGA with large font & To RAM)
Clonezilla live (Speech synthesis)
 Other modes of Clonezilla live
Local operating system (if available)
 Memtester (VGA 800x600 & To RAM)
Memtest using Memtest86+
Network boot via iPXE
uEFI firmware setup
Clonezilla live 3.1.1-27-amd64 info
```

 Use the up and down arrow keys of the keyboard to select one of the top three options:

```
*Clonezilla live (VGA 800x600)
Clonezilla live (VGA 800x600 & To RAM)
Clonezilla live (VGA with large font & To RAM)
Clonezilla live (Speech synthesis)
 Other modes of Clonezilla live
Local operating system (if available)
 Memtester (VGA 800x600 & To RAM)
 Memtest using Memtest86+
Network boot via iPXE
uEFI firmware setup
 Clonezilla live 3.1.1-27-amd64 info
```

Press the Enter key of the keyboard.

 You will see a black screen while "CLONEZILLA LIVE" scans the computer for hard drives and solid state drives (SSDs)



```
Starting to prepare Clonezilla live env...
Live media is in /run/live/medium
Updating /etc/ocs/ocs-live.conf based on kernel parameters if found...
done!
—
```



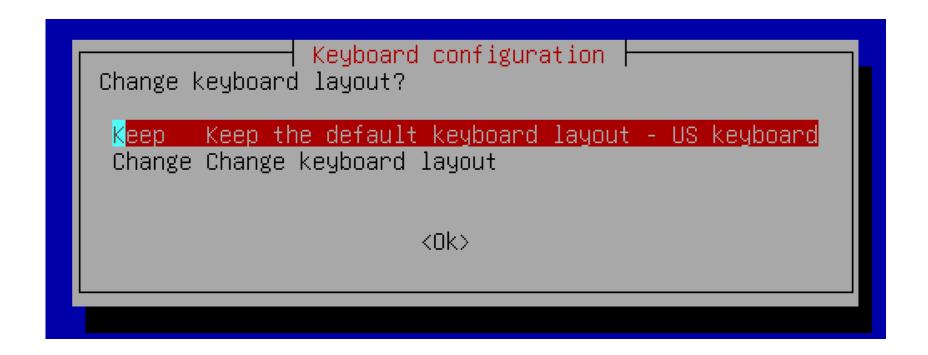
⊢ Choose language ⊢ Which language do you prefer: ca_ES.UTF-8 Catalan | Català de_DE.UTF-8 German | Deutsch el_GR.UTF-8 Greek | Ελληνικά en_US.UTF-8 English hu_HU.UTF-8 Hungarian | Magyar es_ES.UTF-8 Spanish | Español fr_FR.UTF-8 French | Français it_IT.UTF-8 Italian | Italiano ja_JP.UTF-8 Japanese | 日本語 ko_KR.UTF-8 Korean | 한국어 pl_PL.UTF-8 Polish | Polski pt_BR.UTF-8 Brazilian Portuguese | Português do Brasil ru_RU.UTF-8 Russian | Русский sk_SK.UTF-8 Slovak | Slovenský tr_TR.UTF-8 Turkish | Türkçe zh_CN.UTF-8 Chinese (Simplified) | 简体中文 zh_TW.UTF-8 Chinese (Traditional) | 正體中文 - 臺灣 <0k>

```
Choose language
Which language do you prefer:
ca_ES.UTF-8 Catalan | Català
 de_DE.UTF-8 German | Deutsch
 el GR.UTF-8 Greek | Ελληνικά
 en_US.UTF-8 English
 hu_HU.UTF-8 Hungarian | Magyar
es_ES.UTF-8 Spanish | Español
fr_FR.UTF-8 French | Français
 it_IT.UTF-8 Italian | Italiano
 ja_JP.UTF-8 Japanese | 日本語
                     한국어
ko_KR.UTF-8 Korean |
 pl_PL.UTF-8 Polish | Polski
 pt_BR.UTF-8 Brazilian Portuguese | Português do Brasil
ru_RU.UTF-8 Russian | Русский
 sk_SK.UTF-8 Slovak | Slovenskú
 tr_TR.UTF-8 Turkish | Türkce
zh_CN.UTF-8 Chinese (Simplified) | 简体中文
 zh_TW.UTF-8 Chinese (Traditional) | 正體中文 - 臺灣
                         <0k>
```

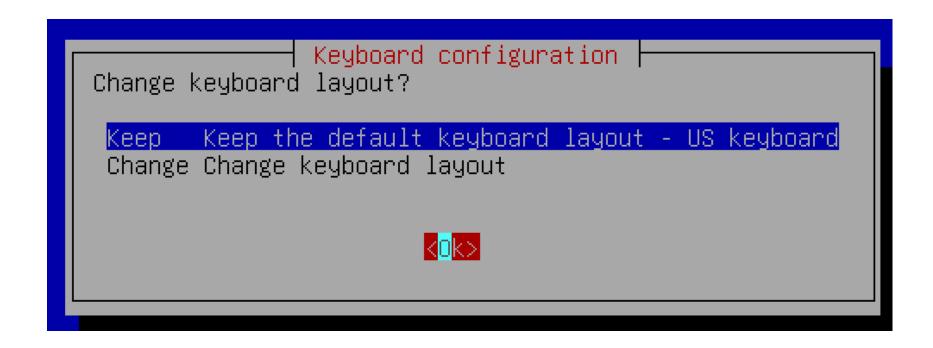
 Press the Tab button of the keyboard to make the "OK" highlight in red:

```
Choose language
Which language do you prefer:
 ca ES.UTF-8 Catalan | Català
 de_DE.UTF-8 German | Deutsch
 el_GR.UTF-8 Greek | Ελληνικά
 en US.UTF-8 English
 hu_HU.UTF-8 Hungarian | Magyar
 es_ES.UTF-8 Spanish | Español
 fr_FR.UTF-8 French | Francais
 it_IT.UTF-8 Italian | Italiano
 ja_JP.UTF-8 Japanese | 日本語
 ko_KR.UTF-8 Korean l 한국어
 pl_PL.UTF-8 Polish | Polski
 pt_BR.UTF-8 Brazilian Portuguese | Português do Brasil
 ru_RU.UTF-8 Russian | Русский
 sk_SK.UTF-8 Slovak | Slovenský
 tr_TR.UTF-8 Turkish | Türkçe
 zh_CN.UTF-8 Chinese (Simplified) | 简体中文
 zh_TW.UTF-8 Chinese (Traditional) | 正體中文 - 臺灣
                         k<mark>o</mark>k>l
```

 Press the Enter key of the keyboard:



 Press the Tab key of the keyboard to make the OK turn red:



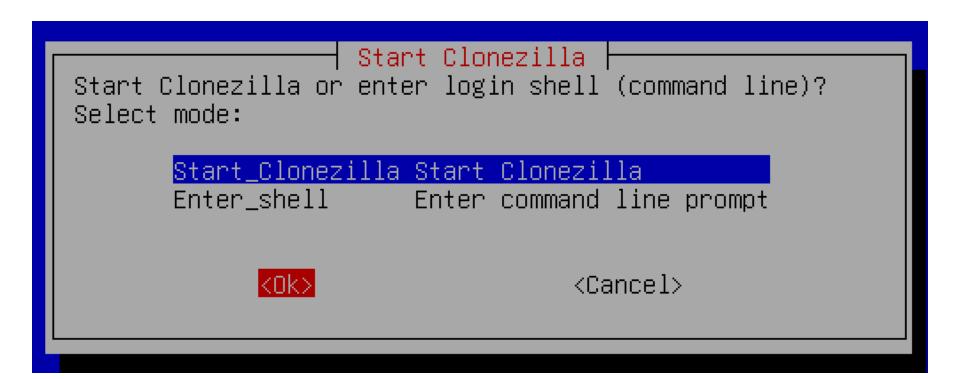
Press the Enter key of the keyboard:

```
Start Clonezilla
Start Clonezilla or enter login shell (command line)?
Select mode:

Start_Clonezilla Start Clonezilla
Enter_shell Enter command line prompt

<Ok>
Cancel>
```

 Press the Tab key of the keyboard to make the OK turn red:



Press the Enter key of the keyboard:

 At this point, the top option is for making a "clone" of a drive or a drive partition and the second option is for making an "image" or restoring from a previously-made "image" of a drive or a drive partition:

Clonezilla - Opensource Clone System (OCS) *Clonezilla is free (GPL) software, and comes with ABSOLUTELY NO WARRANTY* 📕 ///Hint! From now on, if multiple choices are available, you have to press space key to mark your selection. An asterisk (*) will be shown when the selection is done/// Two modes are available, you can (1) clone/restore a disk or partition using an image (2) disk to disk or partition to partition clone/restore. Besides, Clonezilla lite server and client modes are also available. You can use them for massive deployment Select mode: device-image work with disks or partitions using images device-device work directly from a disk or partition to a disk or partition remote-source Enter source mode of remote device cloning remote-dest Enter destination mode of remote device cloning lite-server Enter_Clonezilla_live_lite_server Enter Clonezilla live lite client lite-client $\langle 0k \rangle$ <Cancel>

(continued)
 If you wish to clone a drive or a drive partition, press the Down Arrow key of the keyboard once to select "device-device work directly.." and to turn it red.

(F.y.i. the top default option is for device-image which would let you either create a compressed image file or use a use a previously-made compressed image file to restore to a drive or a drive partition.

```
device-image work with disks or partitions using images

device-device work directly from a disk or partition to a disk or partition
remote-source Enter source mode of remote device cloning
remote-dest Enter destination mode of remote device cloning
lite-server Enter_Clonezilla_live_lite_server
lite-client Enter_Clonezilla_live_lite_client
```

 Press the Tab key of the keyboard to turn the "OK" to red:

Clonezilla - Opensource Clone System (OCS) *Clonezilla is free (GPL) software, and comes with ABSOLUTELY NO WARRANTY* ///Hint! From now on, if multiple choices are available, you have to press space key to mark your selection. An asterisk (*) will be shown when the selection is done/// Two modes are available, you can (1) clone/restore a disk or partition using an image (2) disk to disk or partition to partition clone/restore. Besides, Clonezilla lite server and client modes are also available. You can use them for massive deployment Select mode: device-image work with disks or partitions using images device-device work directly from a disk or partition to a disk or partition remote-source Enter source mode of remote device cloning remote-dest Enter destination mode of remote device cloning lite-server Enter Clonezilla live lite server lite-client Enter Clonezilla live lite client kūksl <Cancel>

Press the Enter key of the keyboard:

Clonezilla - Opensource Clone System (OCS)
Choose the mode to run the following wizard about advanced parameters:

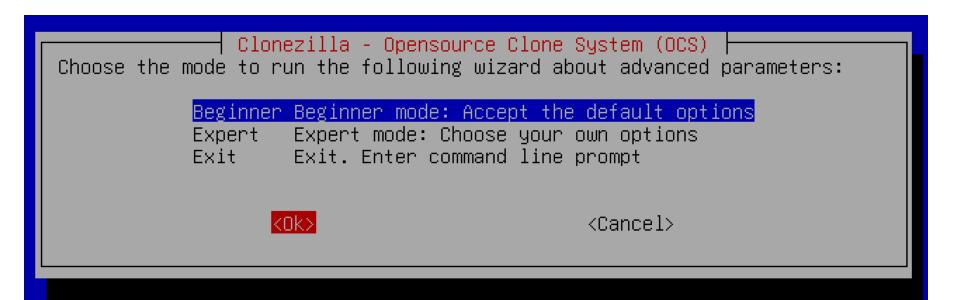
Beginner Beginner mode: Accept the default options
Expert Expert mode: Choose your own options
Exit Exit. Enter command line prompt

(Ok)

(Cancel)

Clonezilla - Opensource Clone System (OCS) mode to run the following wizard about advanced para Beginner Beginner mode: Accept the default options Expert Expert mode: Choose your own options Exit Exit. Enter command line prompt <0k> KCancel>

 Press the Tab key of the keyboard to turn the OK red:



Press the Enter key of the keyboard:

Clonezilla - Opensource Clone System (OCS) ree (GPL) software, and comes with ABSOLUTELY NO WARRANTY* ll overwrite the data on your hard drive when cloning! It is r files on the target disk before you cloning!*** disk_to_local_disk local_disk_to_local_disk_clone part_to_local_part local_partition_to_local_partition_clone Exit. Enter command line prompt exit. $\langle 0k \rangle$ KCancel>

 Press the Tab key of the keyboard to make the OK red:

Press the Enter key of the keyboard:

```
Clonezilla - Opensource Clone System (OCS) | Mode: disk_to_local_disk |
Choose local disk as source.
The disk name is the device name in GNU/Linux. The first disk in the system is "hda" or "sda", the 2nd disk is "hdb" or "sdb"...

sda 8590MB_VBOX_HARDDISK__pci-0000_00_0d_0-ata-2_0_VBe5022d72-74a1888d |
sdb 387GB_VBOX_HARDDISK__pci-0000_00_0d_0-ata-3_0_VB72623826-0bed659d |

<Ok>
<a href="mailto:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:continue:c
```

USING "CLONEZILLA LIVE" (continued) Use the up and down arrow keys

of the keyboard to highlight in red the "source" hard drive or "source" SSD that has the data and photo files that you wish to clone to the other hard drive or SSD. The "source" hard drive or SSD has to be equal or smaller than the "target" hard drive or SSD55

```
Clonezilla - Opensource Clone System (OCS) | Mode: disk_to_local_disk |
Choose local disk as source.
The disk name is the device name in GNU/Linux. The first disk in the system is "hda" or "sda", the 2nd disk is "hdb" or "sdb"...

sda 8590MB_VBOX_HARDDISK__pci-0000_00_0d_0-ata-2_0_VBe5022d72-74a1888d |
sdb 387GB_VBOX_HARDDISK__pci-0000_00_0d_0-ata-3_0_VB72623826-0bed659d |

<Ok>
```

 Use the Tab key of the keyboard to turn the OK to red:

Press the Enter key of the keyboard:

```
Clonezilla - Opensource Clone System (OCS) | Mode: disk_to_local_disk |
Choose local disk as target (ALL DATA ON THE ENTIRE DISK WILL BE LOST AND REPLACED!!)
The disk name is the device name in GNU/Linux. The first disk in the system is "hda" or "sda", the 2nd disk is "hdb" or "sdb"...

sda 8590MB_VBOX_HARDDISK__pci-0000_00_0d_0-ata-2_0_VBe5022d72-74a1888d

<Ok>
Cancel>
```

If you are given a choice, use the up and down arrow keys of the keyboard to select the target hard drive or SSD where you want the files and folders on the source hard drive or SSD to be copied to:

```
Clonezilla - Opensource Clone System (OCS) | Mode: disk_to_local_disk |
Choose local disk as target (ALL DATA ON THE ENTIRE DISK WILL BE LOST AND REPLACED!!)
The disk name is the device name in GNU/Linux. The first disk in the system is "hda" or "sda", the 2nd disk is "hdb" or "sdb"...

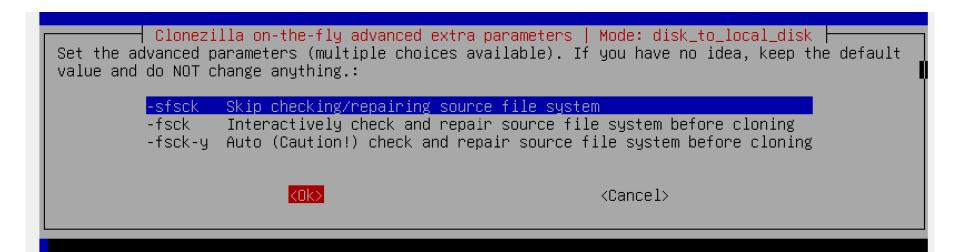
sda 8590MB_VBOX_HARDDISK__pci-0000_00_0d_0-ata-2_0_VBe5022d72-74a1888d

<Ok>
Cancel>
```

 Use the Tab key of the keyboard to make the OK turn red:

 Press the "Enter" key of the keyboard:

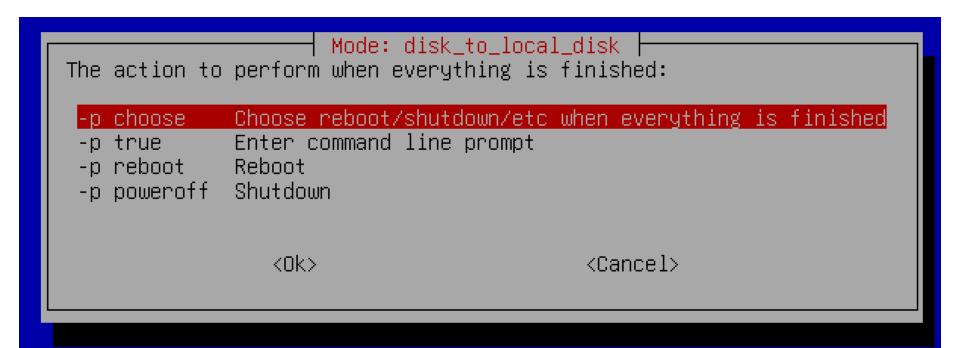
 Use the Tab key of the keyboard turn the "OK" to red:



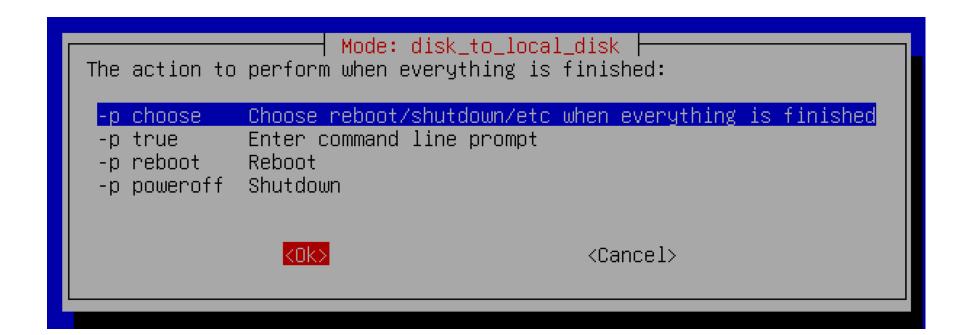
Press the Enter key of the keyboard:

Mode: disk_to_local_disk ate the partition table on the target disk: ***ATTEN THE TARGET DISK. ALL THE DATA ON THE TARGET DEVICE one a large disk (partition) to a smaller disk (part (partition) to a larger disk (partition). eep the default values and do NOT change anything. J -k0 -Use the partition table from the source disk -k1 Create partition table proportionally exit Exit <0k> KCandel>

 Use the Tab key of the keyboard to turn the OK to red:



 Use the Tab key of the keyboard to turn the OK to red:



```
PS. Next time you can run this command directly:
/usr/sbin/ocs-onthefly -g auto -e1 auto -e2 -r -j2 -sfsck -k0 -p choose -f sdb -d sda
This command is also saved as this file name for later use if necessary: /tmp/ocs-onthefly-2024-03-1
4-00-45
Press "Enter" to continue...
***********************
opt_for_ocs_sr_restore_this_run: -g auto -e1 auto -e2 <u>-r -j2 -sfsck -k0</u>
Searching for data partition(s)...
Finding all disks and partitions..
Excluding busy partition.....
Excluding linux raid member partition...
Unmounted partitions (including extended or swap):
Collecting info. done!
WARNING!!! WARNING!!! WARNING!!!
WARNING! THE EXISTING DATA IN THIS HARDDISK/PARTITION(S) WILL BE OVERWRITTEN! ALL EXISTING DATA WILL
BE LOST: sda
Machine: VirtualBox
sda (8590MB_VBOX_HARDDISK__pci-0000_00_0d_0-ata-2_0_VBe5022d72-74a1888d)
Are you sure you want to continue? (y/n) _
```

 Use the keyboard to type in a lower case y:

```
PS. Next time you can run this command directly:
/usr/sbin/ocs-onthefly -g auto -e1 auto -e2 -r -j2 -sfsck -k0 -p choose -f sdb -d sda
This command is also saved as this file name for later use if necessary: /tmp/ocs-onthefly-2024-03-1
4-00-45
Press "Enter" to continue...
opt for ocs sr restore this run: -g auto -e1 auto -e2 -r -i2 -sfsck -k0
Searching for data partition(s)...
Finding all disks and partitions..
Excluding busy partition.....
Excluding linux raid member partition...
Unmounted partitions (including extended or swap):
Collecting info. done!
WARNING!!! WARNING!!! WARNING!!!
WARNING! THE EXISTING DATA IN THIS HARDDISK/PARTITION(S) WILL BE OVERWRITTEN! ALL EXISTING DATA WILL
BE LOST: sda
Machine: VirtualBox
sda (8590MB_VBOX_HARDDISK__pci-0000_00_0d_0-ata-2_0_VBe5022d72-74a1888d)
Are you sure you want to continue? (y/n) y
```

```
WARNING!!! WARNING!!! WARNING!!!
WARNING! THE EXISTING DATA IN THIS HARDDISK/PARTITION(S) WILL BE OVERWRITTEN! ALL EXISTING DATA WILL
BE LOST: sda
Machine: VirtualBox
sda (8590MB_VBOX_HARDDISK__pci-0000_00_0d_0-ata-2_0_VBe5022d72-74a1888d)
Are you sure you want to continue? (y/n) y
OK, let's do it!!
Let me ask you again.
WARNING!!! WARNING!!! WARNING!!!
WARNING! THE EXISTING DATA IN THIS HARDDISK/PARTITION(S) WILL BE OVERWRITTEN! ALL EXISTING DATA WILL
BE LOST: sda
Machine: VirtualBox
sda (8590MB_VBOX_HARDDISK__pci-0000_00_0d_0-ata-2_0_VBe5022d72-74a1888d)
Are you sure you want to continue? (y/n)
```

Use the keyboard to type a lower case
 y

```
enamed '/tmp/d2d-pseudo-tmp-cnvted/sdb-gpt.gdisk' -> '/tmp/d2d-pseudo-tmp-cnvted/sda-gpt.gdisk'
 enamed '/tmp/d2d-pseudo-tmp-cnvted/sdb-gpt.sgdisk' -> '/tmp/d2d-pseudo-tmp-cnvted/sda-gpt.sgdisk'-
 enamed '/tmp/d2d-pseudo-tmp-cnvted/sdb-mbr' -> '/tmp/d2d-pseudo-tmp-cnvted/sda-mbr'
renamed '/tmp/d2d-pseudo-tmp-cnvted/sdb-pt.parted' -> '/tmp/d2d-pseudo-tmp-cnvted/sda-pt.parted'
 renamed '/tmp/d2d-pseudo-tmp-cnvted/sdb-pt.parted.compact' -> '/tmp/d2d-pseudo-tmp-cnvted/sda-pt.par
ted.compact'
 renamed '/tmp/d2d-pseudo-tmp-cnvted/sdb-pt.sf' -> '/tmp/d2d-pseudo-tmp-cnvted/sda-pt.sf'
The created image is "/tmp/d2d-pseudo-tmp-cnvted".
Activating the partition info in /proc... done!
Shutting down the Logical Volume Manager
Finished Shutting down the Logical Volume Manager,
Shutting down the Logical Volume Manager
Finished Shutting down the Logical Volume Manager
Creating partition in /dev/sda...
Destination disk is too small!
Destination disk size: 16777216 sectors (8.5 GB)
Source disk size from the image: 754974720 sectors (386.5 GB)
Program terminated!!
Checking if udevd rules have to be restored...
Now syncing - flush filesystem buffers...
Ending /usr/sbin/ocs-onthefly at 2024-03-14 00:53:20 UTC...
///NOTE/// Remember to remove the source disk or the cloned destination disk before you boot this ma
chine.
Otherwise when two identical systems exist on the same machine, the restored OS will be confused, an
d the booting might fail.
*OPPORTUDING A CONTRACTOR OPPORTUDING A CONTRA
If you want to use Clonezilla again:
(1) Stay in this console (console 1), enter command line prompt
(2) Run command "exit" or "logout"
When everything is done, remember to use 'poweroff', 'reboot' or follow the menu to do a normal powe
roff/reboot procedure. Otherwise if the boot media you are using is a writable device (such as USB
lash drive), and it's mounted, poweroff/reboot in abnormal procedure might make it FAIL to boot next
 time!
Press "Enter" to continue...
```

Select the desired option.
 Then press the Enter key on the keyboard:



ADDITIONAL INFORMATION

 https://www.tecmint.com/linux-centosubuntu-disk-cloning-backup-usingclonezilla/