

6-USING "RESCUEZILLA"

by Francis Chao
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Web location for this
presentation:

<http://aztcs.apcug.org>

Click on "Meeting Notes"
or contact

fchao2@yahoo.com

SUMMARY

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

USING "RESCUEZILLA"

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

USING "RESCUEZILLA" (continued)

- Attach the "target" hard drive or Solid State Drive or USB flash drive to the computer (and make sure that this "target" device is operational)

USING "RESCUEZILLA" (continued)

- 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.)

USING "RESCUEZILLA" (continued)

- Power up the computer
- Press the key(s) needed to get into the UEFI/BIOS/firmware setup screen for selecting the bootable device

Please press DEL or F2 to enter UEFI BIOS

USING "RESCUEZILLA" (continued)

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

> **Boot Configuration**

Boot Option Priorities

Boot Option #1

Windows Boot Manager (M.2_3: ▾)

Boot Option #2

UEFI: USB (494.2GB) ▾

Boot Override

Windows Boot Manager (M.2_3: KINGSTON SNV2S4000G)



UEFI: USB (494.2GB)



Configure the CSM(compatibility support module) items to fully support the various graphics, bootable devices, and add-on devices for a better compatibility.

> **Boot Configuration**

Boot Option Priorities

Boot Option #1

Windows Boot Manager (M.2_3: ▾)

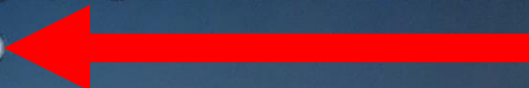
Boot Option #2

UEFI: USB (494.2GB) ▾

Boot Override

Windows Boot Manager (M.2_3: KINGSTON SNV2S4000G)

UEFI: USB (494.2GB)



Configure the CSM(compatibility support module) items to fully support the various graphics, bootable devices, and add-on devices for a better compatibility.

> Boot Configuration

Boot Option Priorities

Boot Option #1

Boot Option #2

Boot Override

Windows Boot Manager (M.2_3: KINGSTON SNV2S4000G)

UEFI: USB (494.2GB)



**Configure the CSM(compatibility support module) items to fully s
for a better compatibility.**

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 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 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

Device Path:

PciRoot(0x0)/Pci(0x11,0x00)/Pci(0x4,0x0)/Sata(0x1,0x0,0x0)

↑↓=Move Highlight

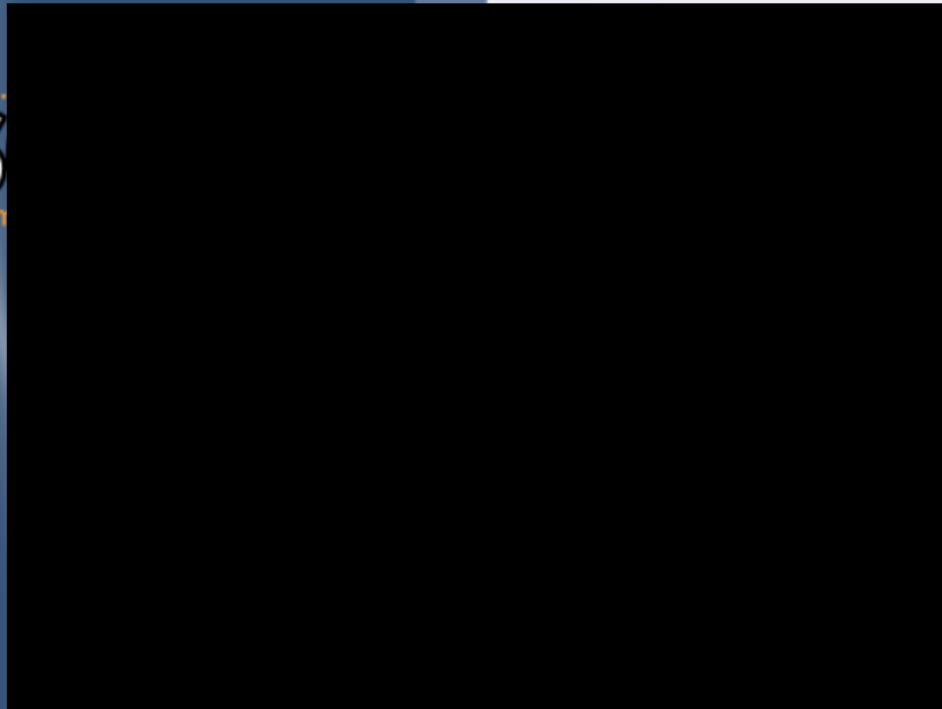
<Enter>=Select Entry

USING "RESCUEZILLA" (continued)

- You will see a black rectangle while "RESCUEZILLA" scans the computer for hard drives and Solid State Drives (SSDs)

2.4.2 64bit 2023-03-06T00747

patreon.
Res
The Swiss Arm



patreon.com/rescuezilla

enter: boot, `e`: options, `c`: cmd-line

```
[ 12.097141] piix4_smbus 0000:00:07.3: SMBus base address uninitialized
ade BIOS or use force_addr=0xaddr
touch: /root/var/crash/crash.init: No such file or directory
rm: can't remove '/root/var/crash/crash.init': No such file or directory
Generating locales (this might take a while)...
  en_US.UTF-8... done
Generation complete.
adduser: Warning: The home directory `/home/ubuntu' does not belong to the
mount: mounting /sys on /root/sys failed: No such file or directory
```

```
[ 12.097141] piix4_smbus 0000:00:07.3: SMBus base address uninitialized - upgr  
ade BIOS or use force_addr=0xaddr  
touch: /root/var/crash/crash.init: No such file or directory  
rm: can't remove '/root/var/crash/crash.init': No such file or directory  
Generating locales (this might take a while)...  
  en_US.UTF-8... done  
Generation complete.  
adduser: Warning: The home directory `/home/ubuntu' does not belong to the user you are currently creating.  
mount: mounting /sys on /root/sys failed: No such file or directory
```

```
[ 12.097141] piix4_smbus 0000:00:07.3: SMBus base address uninitialized - upgrade BIOS or use force_addr=0xaddr
touch: /root/var/crash/crash.init: No such file or directory
rm: can't remove '/root/var/crash/crash.init': No such file or directory
Generating locales (this might take a while)...
  en_US.UTF-8... done
Generation complete.
adduser: Warning: The home directory `/home/ubuntu' does not belong to the user
mount: mounting /sys on /root/sys failed: No such file or directory
```

patreon.com/rescuezilla
Rescuezilla
The Swiss Army Knife of System Recovery



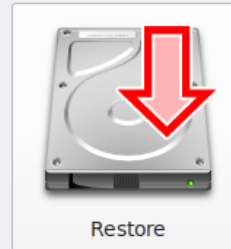
Welcome

Select an Option

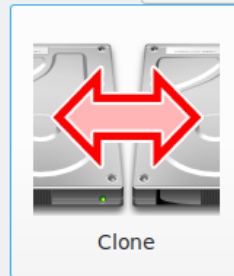
Easily create a backup image of your computer, or completely restore from one. Click an option to begin:



Backup



Restore



Clone



Verify Image

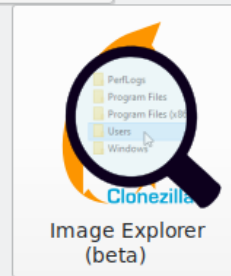


Image Explorer
(beta)


Back

Next >


2.4.2 (64bit) 2023-03-06T000747

USING "RESCUEZILLA" (continued)

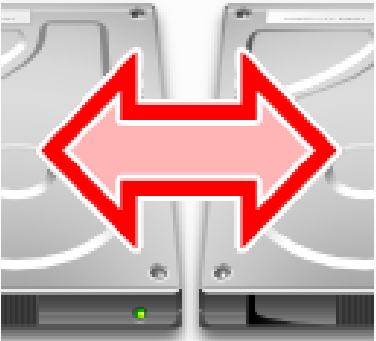
- The "Backup" button is for creating an "image" of a drive or a drive partition:




Backup



Restore



Clone



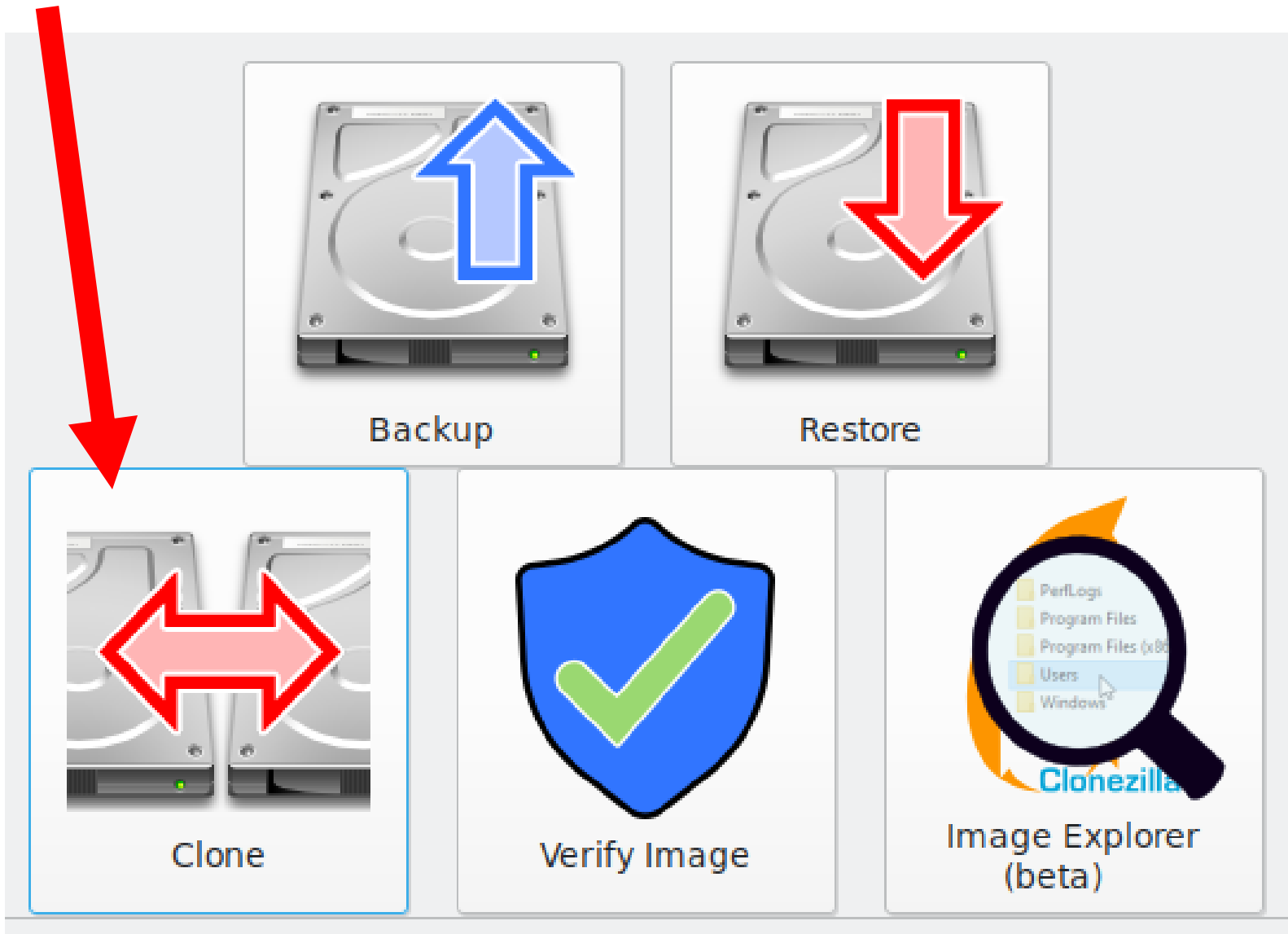
Verify Image



Image Explorer
(beta)

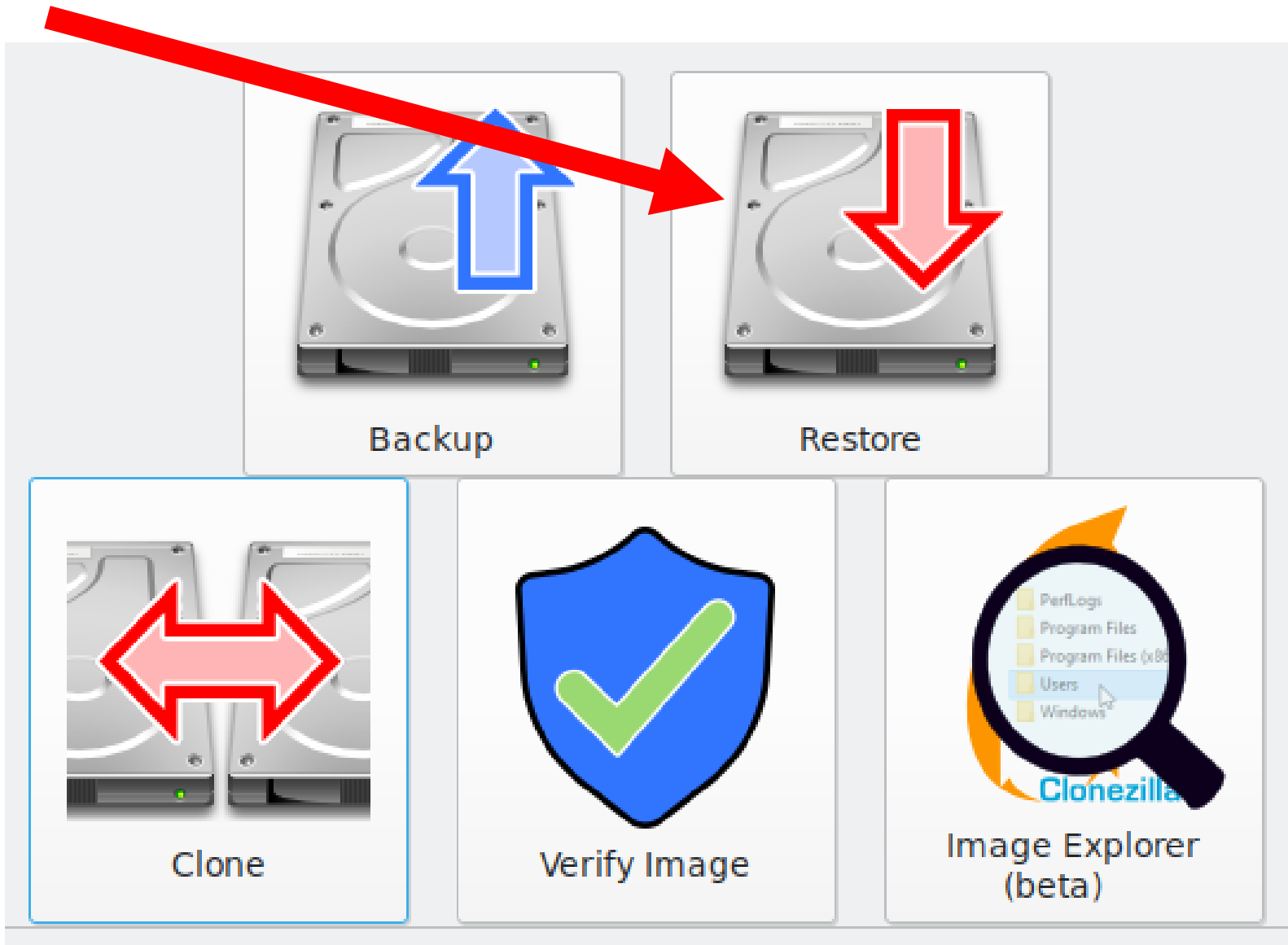
USING "RESCUEZILLA" (continued)

- The "Clone" button is for cloning an existing drive to make an exact copy of it:



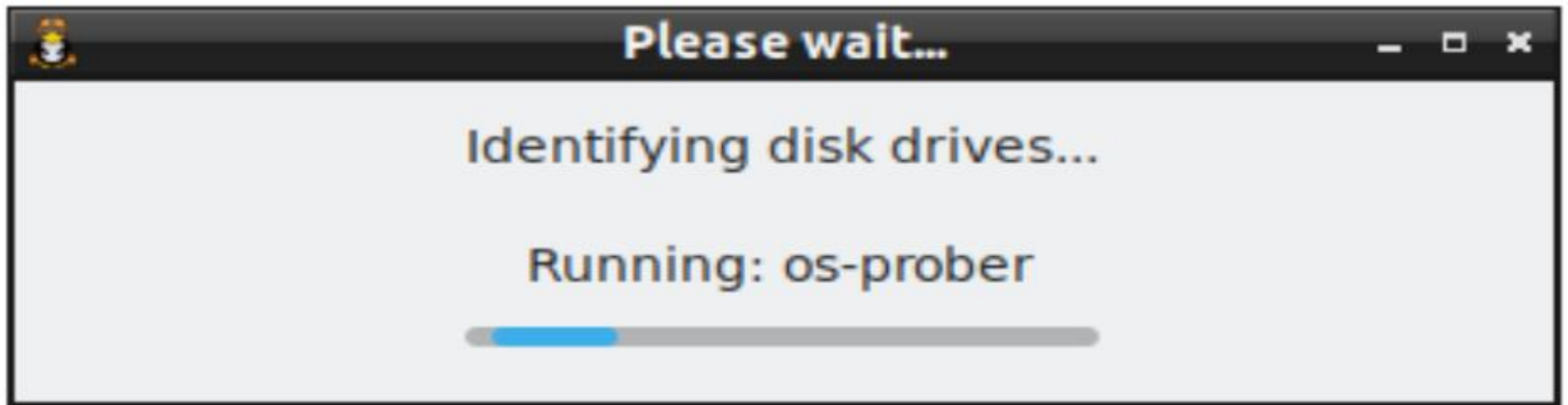
USING "RESCUEZILLA" (continued)

- The "Restore" button is for restoring from an existing, previously-made "image" of a drive or a drive partition:



USING "RESCUEZILLA" (continued)

- After you click on one of the three options, "Rescuezilla" will scan the computer to make a list of all of the hard drives, Solid State Drives, and USB thumb drives that are connected to the computer:



USING "RESCUEZILLA" (continued)

- Let's assume that you clicked on "Clone":

1: Understanding Cloning

Please understand how "cloning" differs from "imaging".

This mode is for "disk cloning". Cloning means copying one drive and directly overwriting another drive. This is a direct one-step operation with no temporary storage required.

Cloning is different to "disk imaging". Imaging means copying everything from one drive into very large files stored inside a folder on an external drive. Multiple images can be saved on the same external drive. These images can be restored back to the original disk, or to additional disks. In other words, for "imaging" the backup operation copies your drive to *files* that need to be stored on a drive at least temporarily before it can be restored.

To use the "imaging" wizards, click **Back** and select **Backup** or **Restore**.

Step 1: Understanding Cloning

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To use the "imaging" wizards, click **Back** and select **Backup** or **Restore**.

To begin the "cloning" wizard, click **Next**

Back

Next >

USING "RESCUEZILLA" (continued)

- Click on the "Next" button:

Step 1: Understanding Cloning

Please understand how "cloning" differs from "imaging".

This mode is for "disk cloning". Cloning means copying one drive and directly overwriting another drive. This is a direct one-step operation with no temporary storage required.

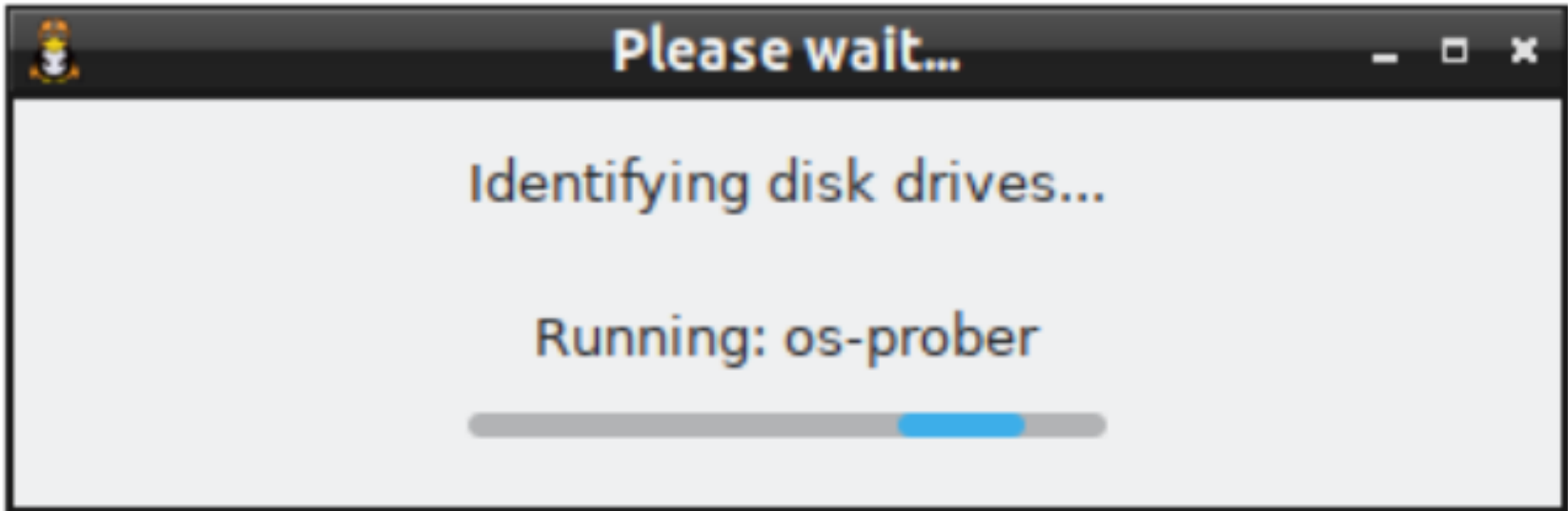
Cloning is different to "disk imaging". Imaging means copying everything from one drive into very large files stored inside a folder on an external drive. Multiple images can be saved on the same external drive. These images can be restored back to the original disk, or to additional disks. In other words, for "imaging" the backup operation copies your drive to *files* that need to be stored on a drive at least temporarily before it can be restored.

To use the "imaging" wizards, click **Back** and select **Backup** or **Restore**.

To begin the "cloning" wizard, click **Next**.

Back

Next >





Clone

Step 2: Select Source Drive

Select the **source drive** to clone.

| Drive | Capacity | Drive Model | Serial Number | Partitions |
|-------|----------|-----------------------------|----------------------|--|
| #1 | 238GB | ATA VMware Virtual S (scsi) | 00000000000000000001 | (512MB, vfat), (237.5GB, ext4, Linux Mint 21.3 |
| #2 | 700GB | ATA VMware Virtual S (scsi) | 02000000000000000001 | (512MB, vfat), (237.5GB, ext4, Linux Mint 21.3 |
| #3 | 438GB | ATA VMware Virtual S (scsi) | 03000000000000000001 | |
| #4 | 999GB | ATA VMware Virtual S (scsi) | 04000000000000000001 | |

Back Next >

USING "RESCUEZILLA" (continued)

- Click on the "source drive",
= the hard drive, or Solid State Drive, or the flash drive that you wish to make a clone of.

Locate the manufacturer's serial number of the "source drive" that wish to clone and check the size of the "source drive".

Do not guess !!

Clone

Step 2: Select Source Drive


Select the **source drive** to clone.

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|-------|----------|-----------------------------|----------------------|---|
| #1 | 238GB | ATA VMware Virtual S (scsi) | 00000000000000000001 | (512MB, vfat), (237.5GB, ext4, Linux Mint 21.3) |
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USING "RESCUEZILLA" (continued)

- Click on the "Next" button in the lower right corner of the window:

Clone

Step 2: Select Source Drive

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|-------|----------|-----------------------------|----------------------|---|
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Back Next >

USING "RESCUEZILLA" (continued)

- Click on the "destination drive", = the hard drive, or Solid State Drive, or the flash drive that you wish to make into a clone of the source disk.

Locate the manufacturer's serial number of the "destination drive" that you wish to clone and check the size of the "destination drive".

Do not guess !!

Clone

Step 3: Select Destination Drive

Select the **destination drive** to overwrite.

| Drive | Capacity | Drive Model | Serial Number | Partitions |
|-------|----------|-----------------------------|----------------------|---|
| #1 | 238GB | ATA VMware Virtual S (scsi) | 00000000000000000001 | (512MB, vfat), (237.5GB, ext4, Linux Mint 21.3) |
| #2 | 700GB | ATA VMware Virtual S (scsi) | 02000000000000000001 | (512MB, vfat), (237.5GB, ext4, Linux Mint 21.3) |
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| #4 | 999GB | ATA VMware Virtual S (scsi) | 04000000000000000001 | |

Back

Next >

Clone

Step 3: Select Destination Drive

Select the **destination drive** to over

| Drive | Capacity | Drive Model | Serial Number | Pa |
|-------|----------|-----------------------------|----------------------|-----|
| #1 | 238GB | ATA VMware Virtual S (scsi) | 00000000000000000001 | (51 |
| #2 | 700GB | ATA VMware Virtual S (scsi) | 02000000000000000001 | (51 |
| #3 | 438GB | ATA VMware Virtual S (scsi) | 03000000000000000001 | |
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Step 3: Select Destination Drive

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USING "RESCUEZILLA" (continued)

- Click on the "Next" button in the lower right corner of the window:

Clone

Step 3: Select Destination Drive

Select the **destination drive** to overwrite.

| Drive | Capacity | Drive Model | Serial Number | Partitions |
|-------|----------|-----------------------------|----------------------|--|
| #1 | 238GB | ATA VMware Virtual S (scsi) | 00000000000000000001 | (512MB, vfat), (237.5GB, ext4, Linux Mint 21.3 |
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Back

Next >



USING "RESCUEZILLA" (continued)

- Click on the "Next" button in the lower right corner of the window:

Clone

Step 4: Select Partitions to Clone

Select which partitions from the source drive to clone, and whether to overwrite the partition table. **Leave everything selected to completely clone the source drive to the destination drive.**

Selected image /dev/sda

Destination device #4: 999GB (ATA VMware Virtual S (scsi))

| Clone | Description | Destination partition |
|-------------------------------------|---------------------------|---------------------------|
| <input checked="" type="checkbox"/> | Partition 1: fat32 512MB | Partition 1: fat32 512MB |
| <input checked="" type="checkbox"/> | Partition 2: ext4 237.5GB | Partition 2: ext4 237.5GB |

Overwrite partition table

You will be overwriting the partition table. The "destination partition" column has been updated using the information stored within the backup image.

If partitions have been resized, new partitions added, or additional operating systems installed since the backup image was created, then the destination drive's partition table will not match the backup image, and overwriting the destination drive's partition table will render these resized and additional partitions permanently inaccessible. If you have not modified the partition table in such a way since creating this backup then overwriting the partition table is completely safe and will have no negative effects.

Back

Next >

USING "RESCUEZILLA" (continued)

- Click on the "Next" button in the lower right corner of the window:

USING "RESCUEZILLA" (continued)

- Click on the "Next" button in the lower right corner of the window:

Clone

Step 5: Confirm Cloning Configuration

Confirm the following cloning configuration.

Source drive /dev/sda

Destination drive #4: 999GB (ATA VMware Virtual S (scsi))

Cloning the following partitions:

/dev/sda1 (Partition 1: fat32 512MB) ----> /dev/sdd1 (Partition 1: fat32 512MB)

/dev/sda2 (Partition 2: ext4 237.5GB) ----> /dev/sdd2 (Partition 2: ext4 237.5GB)

WILL BE OVERWRITING PARTITION TABLE

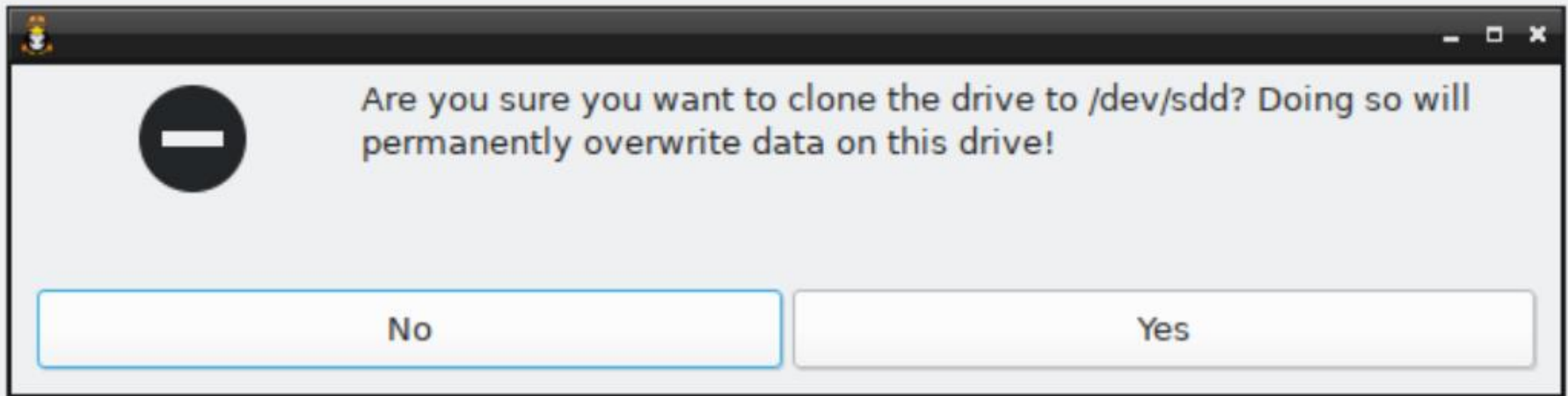
Back

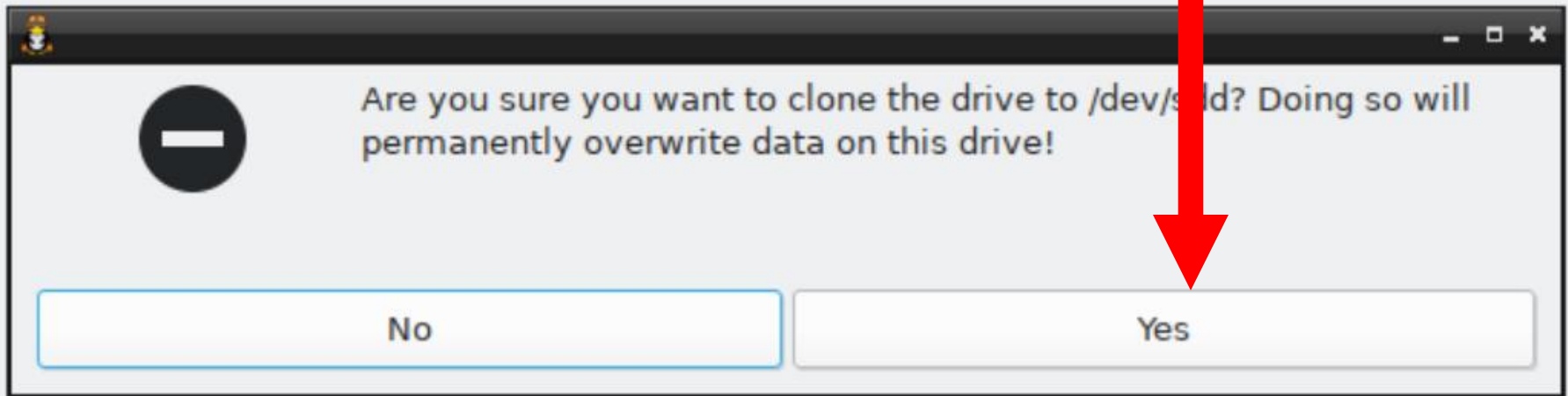
Next >



USING "RESCUEZILLA" (continued)

- Click on the "Yes" button in the dialog box:



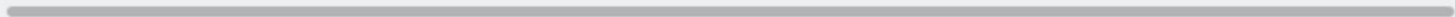


Clone

Step 6: Cloning Disk

Cloning the drive you selected. This may take an hour or more depending on the speed of your computer and the amount of data.

0%



Refreshing partition table
Probing /dev/sdd with hdparm

Back

Next >

one

Step 6: Cloning Disk

Cloning the drive you selected. This may take an hour or more depending on the speed of your computer and the amount of data.

0%



Refreshing partition table
Probing /dev/sdd with hdparm

Back

0%



Refreshing partition table
Probing /dev/sdd with hdparm

USING "RESCUEZILLA" (continued)

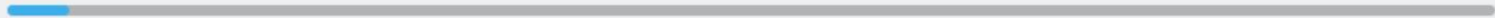
- If the monitor screen goes to solid black, please press one of the Ctrl or Shift keys on the keyboard to continue to view the progress of the cloning process.

Clone

Step 6: Cloning Disk

Cloning the drive you selected. This may take an hour or more depending on the speed of your computer and the amount of data.

4%



Restoring Partition 2: ext4 237.5GB to /dev/sdd2 (Partition 2: ext4 237.5GB)

Elapsed: 00:00:10, Remaining: 00:03:57, Completed: 4.05%, 4.57GB/min,

Back

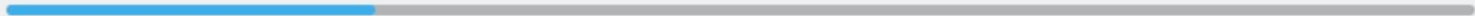
Next >

Clone

Step 6: Cloning Disk

Cloning the drive you selected. This may take an hour or more depending on the speed of your computer and the amount of data.

25%



Restoring Partition 2: ext4 237.5GB to /dev/sdd2 (Partition 2: ext4 237.5GB)

Elapsed: 00:01:06, Remaining: 00:03:18, Completed: 24.97%, 4.27GB/min,

Back

Next >

Restoring Partition 2: ext4 237.5GB to /dev/sdd2 (Partition 2: ext4 237.5GB)

Clone

Step 6: Cloning Disk

Cloning the drive you selected. This may take an hour or more depending on the speed of your computer and the amount of data.

100%



Updating initramfs (if any)

Back

Next >

Updating initramfs (if any)

Clone

Step 6: Cloning Disk

Cloning the drive you selected. This may take an hour or more depending on the speed of your computer and the amount of data.

100%

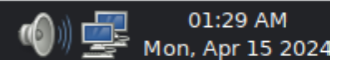


Refreshing partition table
Probing /dev/sdd with blockdev

Back

Next >

Refreshing partition table: Probing /dev/sdd with blockdev



Clone

Summary of Clone

Confirm the clone summary.

Clone Summary

Source image: /dev/sda
Successfully restored partition table.
Successfully restored image partition /dev/sda1 to /dev/sdd1.
Successfully restored image partition /dev/sda2 to /dev/sdd2.
Did not update GRUB bootloader (if any)
Successfully updated initramfs
Successfully updated EFI NVRAM

Operation took 6.1 minutes.

Back

Next >

Clone Summary

Source image: /dev/sda

Successfully restored partition table.

Successfully restored image partition /dev/sda1 to /dev/sdd1.

Successfully restored image partition /dev/sda2 to /dev/sdd2.

Did not update GRUB bootloader (if any)

Successfully updated initramfs

Successfully updated EFI NVRAM

Operation took 6.1 minutes.

USING "RESCUEZILLA" (continued)

- Click on the "Next" button in the lower-right corner of the "Rescuezilla" window:

Clone

Summary of Clone

Confirm the clone summary.

Clone Summary

Source image: /dev/sda
Successfully restored partition table.
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Did not update GRUB bootloader (if any)
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Operation took 6.1 minutes.

Back

Next >

Clone

Summary of Clone

Confirm the clone summary.

Clone Summary

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Operation took 6.1 minutes.

Back

Next >



USING "RESCUEZILLA" (continued)

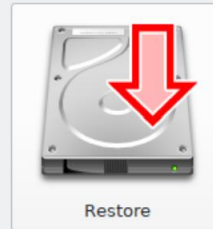
- Use the LEFT mouse button to click on the "Menu" button in the lower-left corner of the computer monitor:



Welcome

Select an Option

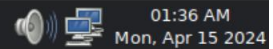
Easily create a backup image of your computer, or completely restore from one. Click an option to begin:



Back

Next >

2.4.2 (64bit) 2023-03-06T000747





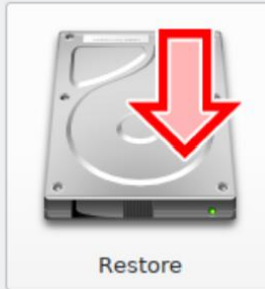
Welcome

Select an Option

Easily create a backup image of your computer, or completely restore from one. Click an option to begin:



Backup



Restore

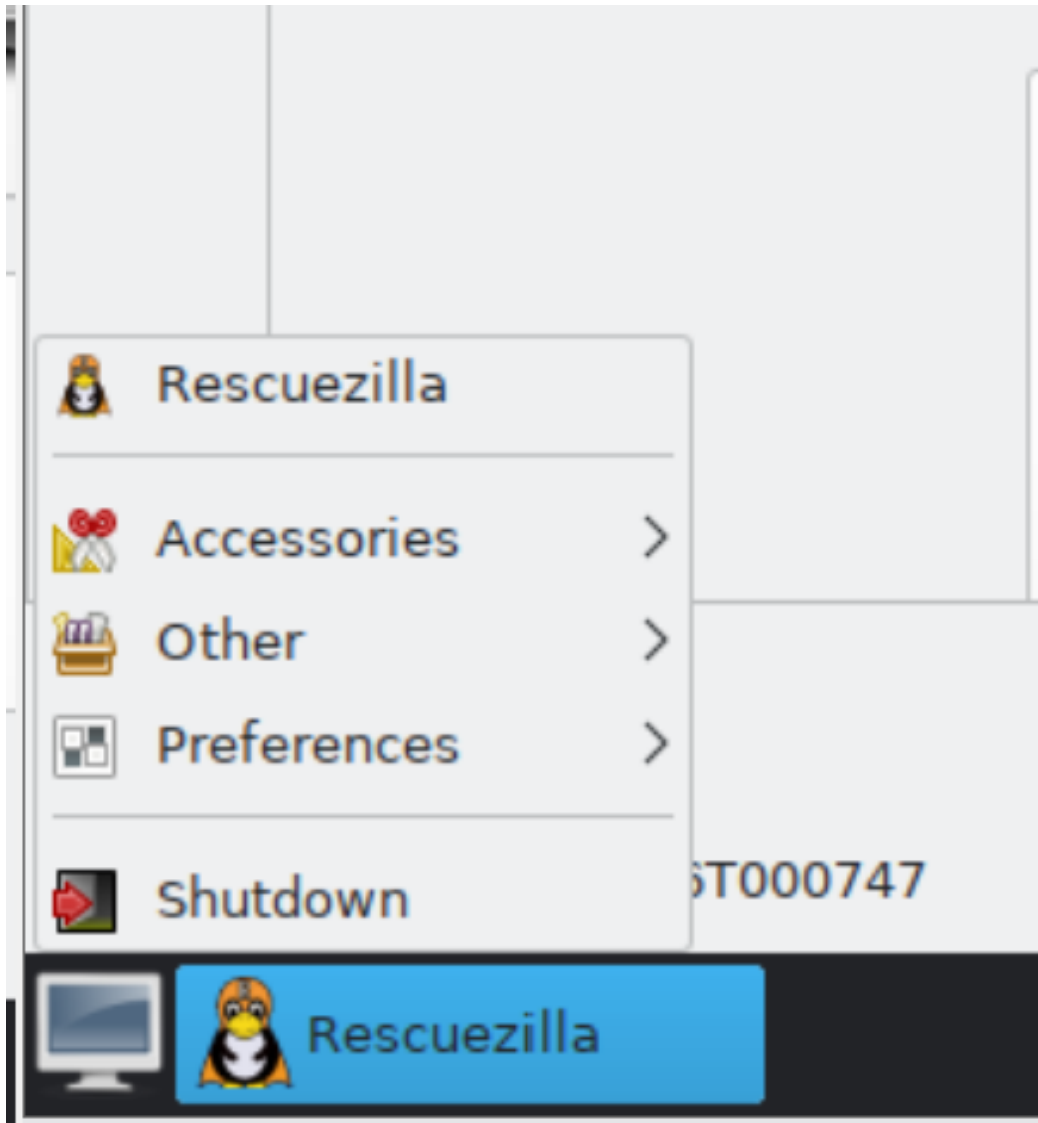


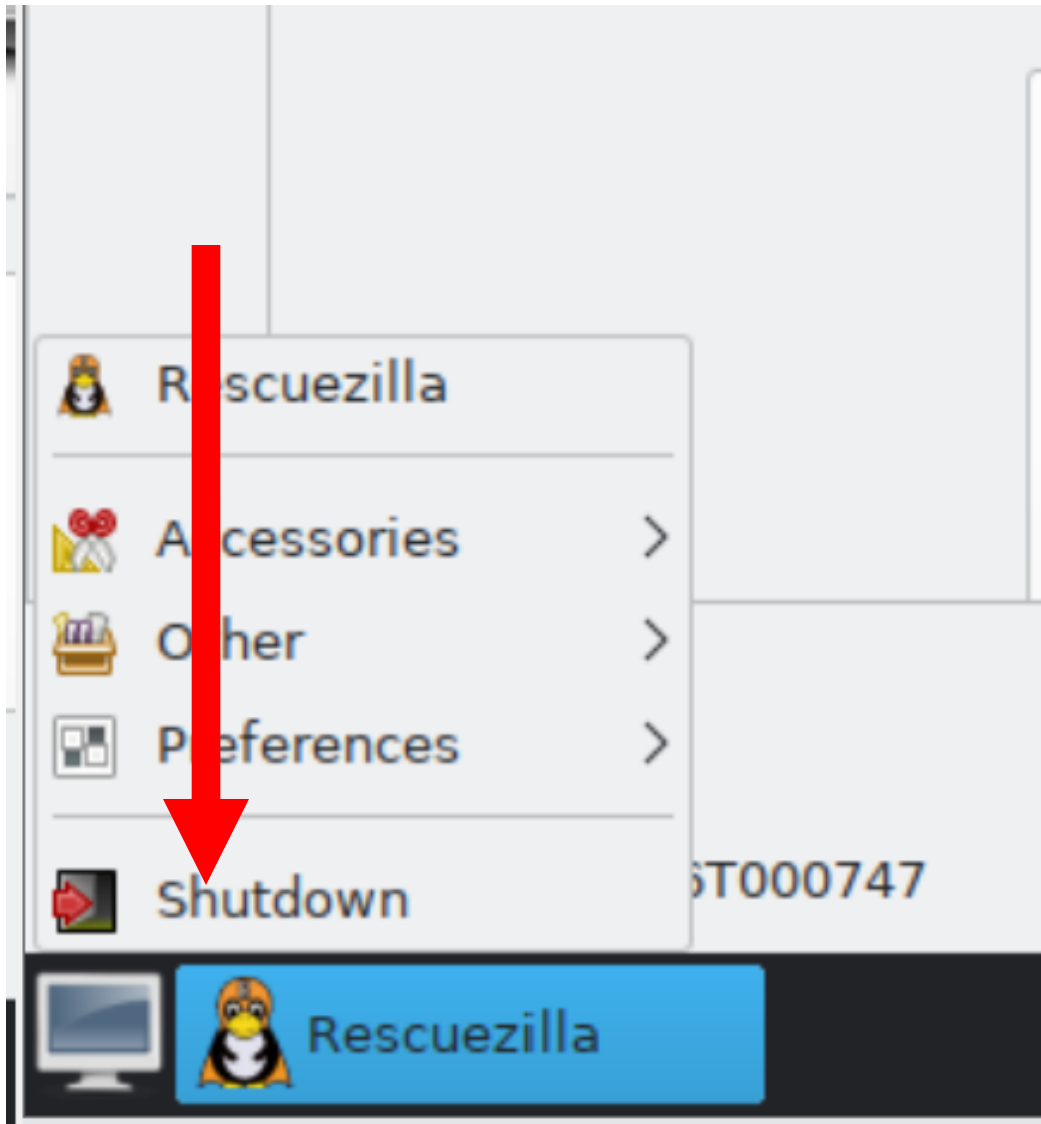
Back Next >

Rescuezilla 2.12 (64bit) 2023-03-06T000747

USING "RESCUEZILLA" (continued)

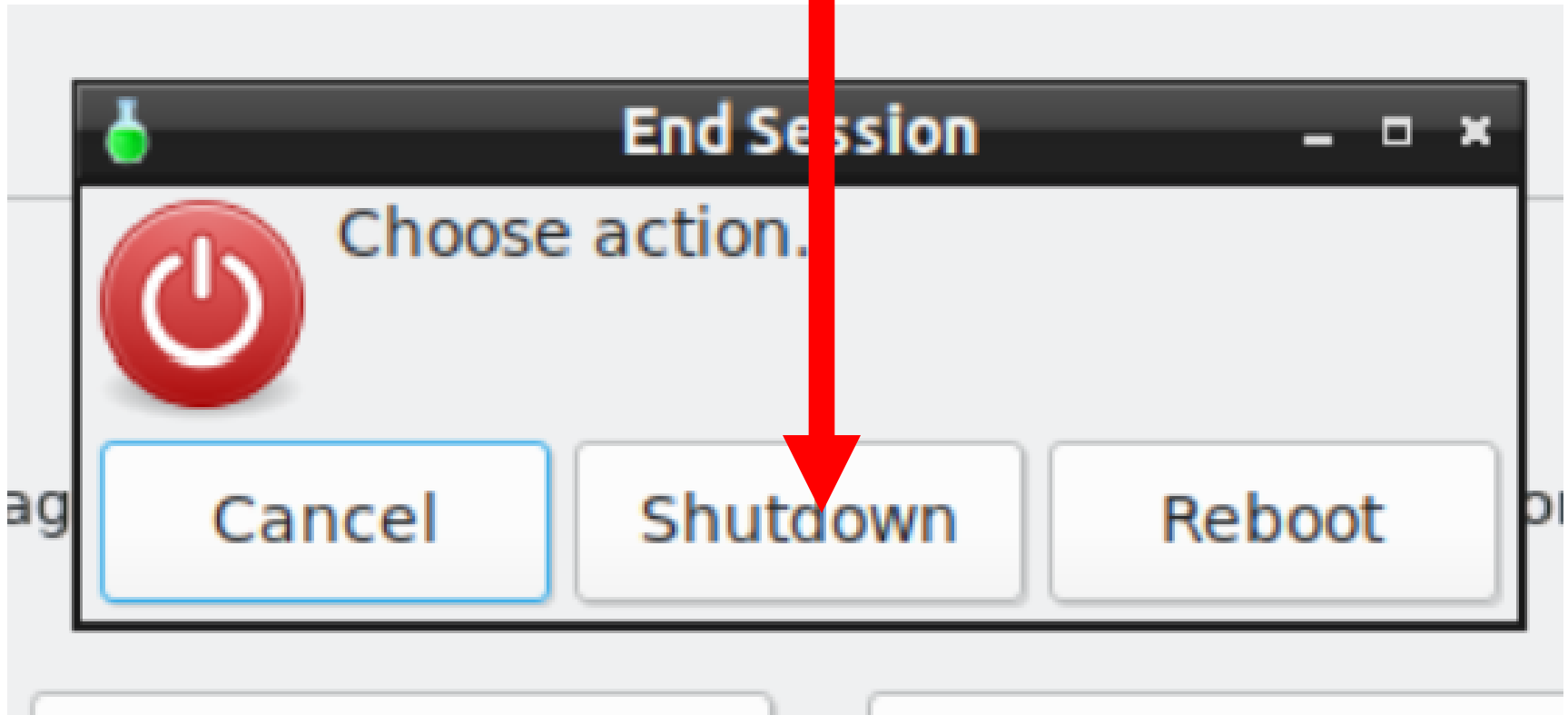
- Use the LEFT mouse button to click on "Shutdown" button:





USING "RESCUEZILLA" (continued)

- Click on "Shutdown" in the dialog box:



USING "RESCUEZILLA" (continued)

- After the computer is powered down, disconnect the "destination drive" and store it in a static-proof container" Do not boot up any computer with both the "source drive" and the "destination drive" connected because it will cause a "signature collision" and other undesired effects (as explained in the next "PowerPoint" slide deck).

